Message

From: Wehrum.Bill@epa.gov [Wehrum.Bill@epa.gov]
Sent: 5/2/2019 9:49:28 PM
To: Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]
CC: Abboud, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6f5af791a1842f1adcc088cbf9ed3ce-Abboud, Mic]; Brazauskas, Joseph [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=babf7b77aeec4ffeaad446bb35e05b24-Brazauskas,]; Voyles, Travis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4c2b6c0d5ff046e7809f8cab2913bc48-Voyles, Tra]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Beach, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6b124299bb6f46a39aa5d84519f25d5d-Beach, Chri]; Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]; Schiermeyer, Corry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b0332276a9784253a5a78f39eccf1f29-Schiermeyer]
Subject: Re: Wehrum/Air Forum comments

Me too. Thanks for your help.

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

On May 2, 2019, at 5:01 PM, Harlow, David <harlow.david@epa.gov> wrote:

> I'm good. Thanks.
>
> Sent from my iPhone
>
> On May 2, 2019, at 4:53 PM, Abboud, Michael <abboud.michael@epa.gov> wrote:
>
> > Last call for any edits.
> >
> > **From:** Abboud, Michael
> > **Sent:** Thursday, May 2, 2019 4:03 PM
> > **To:** Harlow, David <harlow.david@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>
> > **Cc:** Brazauskas, Joseph <brazauskas.joseph@epa.gov>; Voyles, Travis <Voyles.Travis@epa.gov>; Schwab, Justin <schwab.justin@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Beach, Christopher <beach.christopher@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Konkus, John <konkus.john@epa.gov>; McFaul, Jessica <mcfaul.jessica@epa.gov>; Schiermeyer, Corry

<schiermeyer.corry@epa.gov>
Subject: RE: Wehrum/Air Forum comments

That's fine with me. I'm planning on sending the below before 5, unless there are any other objections.

Deliberative Process / Ex. 5

From: Harlow, David
Sent: Thursday, May 2, 2019 2:22 PM
To: Abboud, Michael <abboud.michael@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>
Cc: Brazauskas, Joseph <brazauskas.joseph@epa.gov>; Voyles, Travis <Voyles.Travis@epa.gov>; Schwab, Justin <Schwab.Justin@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Beach, Christopher <beach.christopher@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Konkus, John <konkus.john@epa.gov>; McFaul, Jessica <mcfaul.jessica@epa.gov>; Schiermeyer, Corry <schiermeyer.corry@epa.gov>
Subject: RE: Wehrum/Air Forum comments

I suppose that if I were speaking just for myself, I probably wouldn't hedge, since *had* I ever billed any time to the APF (which I certainly don't remember ever doing), I would have been so informed when, back in 2017, I asked Hunton to generate a list of those clients to whom I recorded time in 2015, 2016, and 2017. But memories fade and mistakes can be made, even in accounting offices, and I don't mean to quibble over terminology. So if Bill is happy with the use of "not aware of," I'm good to go with that.

At the same time, I do think there is value in including a reference to what is, after all, the operative term under Executive Order 13770 – *i.e.*, "former client" – which Executive Order 13770 defines to mean "any person for whom the appointee served personally as agent, attorney, or consultant within the 2 years prior to the date of his or her appointment . . . . *It does not include clients of the appointee's former employer to whom the appointee* ***did not personally provide services***." (emphasis added). So I would propose adding the sentence in red below.

David S. Harlow
Senior Counsel
Immediate Office of the Assistant Administrator
Office of Air and Radiation, USEPA
WJC-N Room 5409K
1200 Pennsylvania Avenue NW
Washington, DC 20460
202-564-1233
Harlow.David@epa.gov

From: Abboud, Michael
Sent: Thursday, May 2, 2019 1:53 PM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>
Cc: Harlow, David <harlow.david@epa.gov>; Brazauskas, Joseph <brazauskas.joseph@epa.gov>; Voyles, Travis <Voyles.Travis@epa.gov>; Schwab, Justin <Schwab.Justin@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Beach, Christopher <beach.christopher@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Konkus, John <konkus.john@epa.gov>; McFaul, Jessica <mcfaul.jessica@epa.gov>; Schiermeyer, Corry <schiermeyer.corry@epa.gov>
Subject: RE: Wehrum/Air Forum comments

Will this work for everyone?

Deliberative Process / Ex. 5

From: Wehrum, Bill
Sent: Thursday, May 2, 2019 1:40 PM
To: Abboud, Michael <abboud.michael@epa.gov>
Cc: Harlow, David <harlow.david@epa.gov>; Brazauskas, Joseph <brazauskas.joseph@epa.gov>; Voyles, Travis <Voyles.Travis@epa.gov>; Schwab, Justin <Schwab.Justin@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Beach, Christopher <beach.christopher@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Konkus, John <konkus.john@epa.gov>; McFaul, Jessica <mcfaul.jessica@epa.gov>; Schiermeyer, Corry <schiermeyer.corry@epa.gov>
Subject: Re: Wehrum/Air Forum comments

Deliberative Process / Ex. 5

Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

On May 2, 2019, at 1:35 PM, Wehrum, Bill <Wehrum.Bill@epa.gov> wrote:

Deliberative Process / Ex. 5

I will be off line for the next few hours. I prefer some response over nothing at all.

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

On May 2, 2019, at 12:36 PM, Abboud, Michael <abboud.michael@epa.gov> wrote:

Will this work?

Deliberative Process / Ex. 5

From: Harlow, David
Sent: Thursday, May 2, 2019 11:40 AM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>
Cc: Brazauskas, Joseph <brazauskas.joseph@epa.gov>; Voyles, Travis <Voyles.Travis@epa.gov>; Schwab, Justin <Schwab.Justin@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Beach, Christopher <beach.christopher@epa.gov>; Hewitt, James

<hewitt.james@epa.gov>; Konkus, John <konkus.john@epa.gov>; McFaul, Jessica <mcfaul.jessica@epa.gov>; Schiermeyer, Corry <schiermeyer.corry@epa.gov>
Subject: RE: Wehrum/Air Forum comments

Why not something like:

Deliberative Process / Ex. 5

Three straightforward declarative statements, each true.

David S. Harlow
Senior Counsel
Immediate Office of the Assistant Administrator
Office of Air and Radiation, USEPA
WJC-N Room 5409K
1200 Pennsylvania Avenue NW
Washington, DC 20460
202-564-1233
Harlow.David@epa.gov

From: Wehrum, Bill
Sent: Thursday, May 2, 2019 11:12 AM
To: Abboud, Michael <abboud.michael@epa.gov>
Cc: Harlow, David <harlow.david@epa.gov>; Brazauskas, Joseph <brazauskas.joseph@epa.gov>; Voyles, Travis <Voyles.Travis@epa.gov>; Schwab, Justin <Schwab.Justin@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Beach, Christopher <beach.christopher@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Konkus, John <konkus.john@epa.gov>; McFaul, Jessica <mcfaul.jessica@epa.gov>; Schiermeyer, Corry <schiermeyer.corry@epa.gov>
Subject: Re: Wehrum/Air Forum comments

Deliberative Process / Ex. 5

Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

On May 2, 2019, at 9:36 AM, Abboud, Michael <abboud.michael@epa.gov> wrote:

Deliberative Process / Ex. 5

From: Alex Guillen <aguillen@politico.com>
Sent: Wednesday, May 1, 2019 4:13 PM
To: Press <Press@epa.gov>
Subject: Wehrum/Air Forum comments

Good afternoon,

I'm writing about a discovery by Sens. Tom Carper and Sheldon Whitehouse that part of the December 2017 NSR memo contains a passage very close to language submitted to EPA through a public comment process months earlier by the Air Permitting Forum. The Forum, like UARG, is run by attorneys at Hunton, Bill Wehrum's prior firm. I have specific questions below and would welcome any other comment from EPA. My deadline is **5 p.m. on Thursday, May 2**.

Here are the passages in question. I've attached the full documents as well.

From the December 2017 Pruitt memo: "Because increased emissions may be caused by multiple factors, the **EPA has recognized that the source must exercise judgement to exclude**

increases for which the project is not the 'predominant cause.'"

From the May 2017 Air Permitting Forum comments: "While historically **EPA has recognized that a source must exercise judgment to exclude increases for which the project is not the 'predominant cause,'** more recent EPA actions reflect the view that all emission increases are presumed to be caused by the change."

My questions:

Did Wehrum ever work for the Air Permitting Forum or any of its member companies while at Hunton?

Did he review the Forum's May 2017 regulatory comments to EPA while at Hunton?

Did Wehrum review the part of the December 2017 DTE memo discussing the exclusion issue (contained in the third paragraph on page 7)? If so, was he aware the language was virtually identical to that submitted by the Forum? (That part of the memo does not directly reference DTE, and EPA has said Wehrum consulted on the non-DTE portions of the memo.)

The memo-writing process took several months. When did EPA add the sentence in question to the memo? Did EPA purposely adopt the Forum's language? If so, why did the agency decide not to cite the source of the passage?

Did David Harlow ever work for the Forum at Hunton? Was he ever involved with the Forum's May 2017 regulatory comment? Did he review that portion of the December 2017 DTE memo, or any portion of the memo at all?

Thank you,

Alex Guillen | Energy Reporter | **POLITICO**PRO
1000 Wilson Boulevard, 8th Floor | Arlington, VA 22209
Phone Ex. 6
Email: aguillen@politico.com | Twitter: @alexcguillen
| Website: www.POLITICOPro.com

<Air Permitting Forum comment.pdf>

<policy_memo.12.7.17.pdf>

Message

From: Wehrum.Bill@epa.gov [Wehrum.Bill@epa.gov]
Sent: 5/2/2019 12:34:13 PM
To: Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]
CC: Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Abboud, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6f5af791a1842f1adcc088cbf9ed3ce-Abboud, Mic]; McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]; Schiermeyer, Corry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b0332276a9784253a5a78f39eccf1f29-Schiermeyer]; Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]
Subject: Re: Wehrum/Air Forum comments

Deliberative Process / Ex. 5

E

Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

On May 1, 2019, at 10:02 PM, Konkus, John <konkus.john@epa.gov> wrote:

> Thank you Bill.
>
> John Konkus
> Environmental Protection Agency
> Deputy Associate Administrator for Public Affairs
> Mobile: (202) 365-9250
>
> On May 1, 2019, at 9:44 PM, Wehrum, Bill <Wehrum.Bill@epa.gov> wrote:
>
>> John - I would be comfortable conveying some or all of the following:

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Happy to provide more input if helpful or needed.

_____

Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

On May 1, 2019, at 4:15 PM, Konkus, John <konkus.john@epa.gov> wrote:

> I understand Bill is out of the office this week, however, we have this inquiry below that needs to be addressed by 5pm tomorrow…
>
> ---
>
> **From:** Alex Guillen <aguillen@politico.com>
> **Sent:** Wednesday, May 1, 2019 4:13 PM
> **To:** Press <Press@epa.gov>
> **Subject:** Wehrum/Air Forum comments
>
> Good afternoon,
>
> I'm writing about a discovery by Sens. Tom Carper and Sheldon Whitehouse that part of the December 2017 NSR memo contains a passage very close to language submitted to EPA through a public comment process months earlier by the Air Permitting Forum. The Forum, like UARG, is run by attorneys at Hunton, Bill Wehrum's prior firm. I have specific questions below and would welcome any other comment from EPA. My deadline is **5 p.m. on Thursday, May 2**.
>
> Here are the passages in question. I've attached the full documents as well.
>
> From the December 2017 Pruitt memo: "Because increased emissions may be caused by multiple factors, the **EPA has recognized that the source must exercise judgement to exclude increases for which the project is not the 'predominant cause.'"**
>
> From the May 2017 Air Permitting Forum comments: "While historically **EPA has recognized that a source must exercise judgment to exclude increases for which the project is not the 'predominant cause,'** more recent EPA actions reflect the view that all emission increases are presumed to be caused by the change."
>
> **My questions:**
>
> Did Wehrum ever work for the Air Permitting Forum or any of its member companies while at Hunton?
>
> Did he review the Forum's May 2017 regulatory comments to EPA while at Hunton?

Did Wehrum review the part of the December 2017 DTE memo discussing the exclusion issue (contained in the third paragraph on page 7)? If so, was he aware the language was virtually identical to that submitted by the Forum? (That part of the memo does not directly reference DTE, and EPA has said Wehrum consulted on the non-DTE portions of the memo.)

The memo-writing process took several months. When did EPA add the sentence in question to the memo? Did EPA purposely adopt the Forum's language? If so, why did the agency decide not to cite the source of the passage?

Did David Harlow ever work for the Forum at Hunton? Was he ever involved with the Forum's May 2017 regulatory comment? Did he review that portion of the December 2017 DTE memo, or any portion of the memo at all?

Thank you,

Alex Guillen | Energy Reporter | **POLITICO**PRO
1000 Wilson Boulevard, 8th Floor | Arlington, VA 22209
Phone Ex. 6
Email: aguillen@politico.com | Twitter: @alexcguillen
| Website: www.POLITICOPro.com

<Air Permitting Forum comment.pdf>

<policy_memo.12.7.17.pdf>

Appointment

From: Ex. 6 Personal Privacy (PP) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=83F9AE79D99D4661AA37D687409C1993- Ex. 6 Personal Privacy (PP)
Sent: 5/31/2019 4:37:59 PM
To: Ex. 6 Personal Privacy (PP) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=83f9ae79d99d4661aa37d687409c1993- Ex. 6 Personal Privacy (PP); Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Dominguez, Alexander [dominguez.alexander@epa.gov]; Idsal, Anne [idsal.anne@epa.gov]

Subject: Meeting with American Petroleum Institute
Attachments: EPA Meeting Request Form - Administrator Wheeler.docx
Location: Administrator's office

Start: 7/11/2019 2:30:00 PM
End: 7/11/2019 3:00:00 PM
Show Time As: Tentative

Appointment

From: Ex. 6 Personal Privacy (PP) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=83F9AE79D99D4661AA37D687409C1993-Ex. 6 Personal Privacy (PP)
Sent: 5/31/2019 4:37:59 PM
To: Ex. 6 Personal Privacy (PP) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=83f9ae79d99d4661aa37d687409c1993-Ex. 6 Personal Privacy (PP); Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]

Subject: Canceled: Meeting with American Petroleum Institute
Attachments: EPA Meeting Request Form - Administrator Wheeler.docx
Location: Administrator's office

Start: 7/11/2019 2:30:00 PM
End: 7/11/2019 3:00:00 PM
Show Time As: Free

Importance: High

Appointment

From: Ex. 6 Personal Privacy (PP) /O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=83F9AE79D99D4661AA37D687409C1993- Ex. 6 Personal Privacy (PP)
Sent: 5/31/2019 4:37:55 PM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Idsal, Anne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b1beca8121fb47a08e82b6bf2247a79b-Idsal, Anne]

Subject: Meeting with American Petroleum Institute
Attachments: EPA Meeting Request Form - Administrator Wheeler.docx
Location: Administrator's office

Start: 7/11/2019 2:30:00 PM
End: 7/11/2019 3:00:00 PM
Show Time As: Tentative

Message

From: Ex. 6 Personal Privacy (PP) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=6F061A85B2E14828934C1A85CC4D5122-Ex. 6 Personal Privacy (PP)
Sent: 2/12/2019 2:20:02 PM
To: Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]
CC: Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Abboud, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6f5af791a1842f1adcc088cbf9ed3ce-Abboud, Mic]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Bennett, Tate [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1fa92542f7ca4d01973b18b2f11b9141-Bennett, El]
Subject: Re: Article w/ EPA comment

Deliberative Process / Ex. 5

Sent from my iPhone

On Feb 12, 2019, at 9:18 AM, Konkus, John <konkus.john@epa.gov> wrote:

Deliberative Process / Ex. 5

On Feb 12, 2019, at 9:16 AM, Ex. 6 Personal Privacy (PP) <Ex. 6 Personal Privacy (PP)> wrote:

Deliberative Process / Ex. 5

On Feb 12, 2019, at 8:36 AM, Konkus, John <konkus.john@epa.gov> wrote:

RPT-EXCLUSIVE-U.S. EPA may issue E15 gasoline plan without biofuel credit trade limits -sources - Reuters News
12-Feb-2019
By Humeyra Pamuk

WASHINGTON, Feb 12 (Reuters) - The U.S. Environmental Protection Agency is considering releasing its draft proposal to expand sales of higher ethanol blends of gasoline without including simultaneous measures it promised the oil industry to curb biofuel credit speculation, according to three sources familiar with the matter.

The move would help the agency lift a summertime ban on sales of so-called E15 gasoline in time for the U.S. driving season, but is likely to

anger oil refiners that had been asking the Trump administration for biofuel credit market reforms to reduce their costs.
If EPA passed on introducing biofuel credit trading limits, it would leave the door open to potential speculative price surges that could cost refiners like Valero Energy Corp hundreds of millions of dollars.

President Donald Trump announced in October he was directing the EPA to allow year-round sales of E15, in a win for the powerful corn industry which supplies ethanol.E15 gasoline contains 15 percent ethanol, versus the 10 percent found in most U.S. gasoline.

The ban had been imposed over concerns that E15 contributes to smog in hot weather.

"President Trump charged EPA with issuing a new rule on E15 RVP and RIN market reform and doing that in a timely manner remains our goal," EPA spokesman Michael Abboud said in email comment.

The EPA had initially planned to combine credit trading limits into the E15 rule as a concession to the oil industry, which says speculation increases the price of biofuel credits it must purchase to comply with federal law.

Under the U.S. Renewable Fuels Standard oil refiners have to blend increasing volumes of biofuels into the nation's gasoline and diesel each year, or purchase credits - called Renewable Identification Numbers - from those who do.

The combined draft proposal was scheduled for release this month, and was meant to be finalized and implemented by June.
"The EPA has been seriously looking at dropping the RIN reform to speed up the process on E15," one industry source with knowledge of the matter said.

One other source said that the EPA had already decided to delay the credit trading limits. "They separated the RIN reform to ensure that the (E15) rule would get done in a timely manner," the source said.

The sources asked not to be named discussing the matter.

The agency is still working to release its draft rule for E15 by the end of the month, possibly within days, and is planning to expedite the rule-making process to finish it by June when seasonal driving demand picks up.

The recent partial government shutdown in the United States had raised concerns the effort might not be completed on time because agency workers were furloughed. Bill Wehrum, a senior EPA official, in charge of the department drafting the rule, said the agency would still make it ready for summer driving season.

Message

From: Frye, Tony (Robert) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=58C08ABDFC1B4129A10456B78E6FC2E1-FRYE, ROBER]
Sent: 1/3/2019 4:22:20 PM
To: Greaves, Holly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=abcb6428b3df40a9a78b059a8ba59707-Greaves, Ho]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Beach, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6b124299bb6f46a39aa5d84519f25d5d-Beach, Chri]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]
CC: Palich, Christian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=330ad62e158d43af93fcbbece930d21a-Palich, Chr]; Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]
Subject: OAR Hearing Prep 1.4.19
Attachments: OAR-1 CLEAN Affordable Clean Energy Rule.docx; OAR-2 CLEAN NSR.DOCX; OAR-3 CLEAN Quick-Start Turbines.docx; OAR-4 CLEAN MATS.docx; OAR-5 CLEAN MM2A OIAI.docx; OAR-6 CLEAN EtO in Illinois.docx; OAR-7 CLEAN NAAQS - Setting Status and Designations.docx; OAR-8 CLEAN NAAQS Attainment.docx; OAR-9 CLEAN Exceptional Events.docx; OAR-10 CLEAN CAA 126.docx; OAR-11 CLEAN Methane.docx; OAR-12 CLEAN Regional Haze.docx; OAR-13 CLEAN Wildfires.docx; OAR-14 CLEAN Wood Heaters.docx; OAR-15 CLEAN AK-Diesel Generators.docx; OAR-16 CLEAN Radiation Protection Radiological Emergency Response.docx; OAR-17 CLEAN Kigali and HFCs.docx; OAR-18 CLEAN NCA4.docx; OAR-19 CLEAN CSAPR and Good Neighbor SIPs.docx; OAR-20 CLEAN SAFE-CAFE.DOCX; OAR-21 CLEAN Parity for Natural Gas Vehicles with Electric Vehicles.docx; OAR-22 CLEAN Cleaner Trucks Initiative.docx; OAR-23 CLEAN Glider Kits.docx; OAR-24 CLEAN RFS-General.docx; OAR-25 CLEAN RFS-RIN Costs.docx; OAR-26 CLEAN RFS-E15 and RIN Mkt Reform.docx; OAR-27 CLEAN RFS-Small Refinery Exemptions.docx; OAR-28 CLEAN RFS-Reallocation of RINs Opposing Reallocation.docx; OAR-29 CLEAN RFS-Reset Rule.docx; OAR-30 CLEAN Aircraft GHG.DOCX

Hello Team – In advance of the OAR hearing prep in tomorrow, here are the fact sheets for you to print in advance. Let us know if you have any questions.
Thanks,
Tony

Tony Frye
Special Advisor
Office of Congressional Affairs
Environmental Protection Agency
Cell: 202.603.3225

Message

From: Hewitt, James [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=41B19DD598D340BB8032923D902D4BD1-HEWITT, JAM]
Sent: 3/28/2019 12:03:42 AM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]
CC: Abboud, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6f5af791a1842f1adcc088cbf9ed3ce-Abboud, Mic]; Schiermeyer, Corry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b0332276a9784253a5a78f39eccf1f29-Schiermeyer]
Subject: Re: Wehrum meetings with Hunton folks

I can meet you at 8.

Sent from my iPhone

On Mar 27, 2019, at 7:54 PM, Wehrum, Bill <Wehrum.Bill@epa.gov> wrote:

> Yes. I will be in my office by 8. I need to attend Wheeler's AA meeting at 8:30.
>
> _____
> Bill Wehrum
> Assistant Administrator
> Office of Air and Radiation
> U.S. Environmental Protection Agency
> (202) 564-7404
>
> On Mar 27, 2019, at 6:35 PM, Hewitt, James <hewitt.james@epa.gov> wrote:
>
>> Bill, can you meet first thing in the morning to discuss?
>>
>> Sent from my iPhone
>>
>> Begin forwarded message:
>>
>>> **Resent-From:** <Press@epa.gov>
>>> **From:** Alex Guillen <aguillen@politico.com>
>>> **Date:** March 27, 2019 at 6:27:39 PM EDT
>>> **To:** Press <Press@epa.gov>
>>> **Subject: Wehrum meetings with Hunton folks**
>>>
>>> Hello,
>>>
>>> Attached is a spreadsheet I made listing several lunches, coffees and calls that Bill Wehrum coordinated in emails released by the Sierra Club but that do not seem to show up on his calendar as released via FOIA.
>>>
>>> I'm working on a story outlining these undisclosed meetings. For the entries at the bottom, it is unclear if the one in yellow ultimately happened; the two in orange are too cryptic/redacted to fully decipher; and the two in red appear to refer to a Hunton reception Wehrum attended.

Only one of the meetings indicates that nothing of substance will be discussed. Did any of these gatherings involve official EPA talk, versus personal matters? One of the entries references an Environmental Law Institute meeting Wehrum attended on March 7, 2018. ELI has no public meetings on its calendar for that date, and there is no entry on Wehrum's calendar. What was the meeting about? Who else attended? Did Wehrum speak or merely attend?

These meetings mostly take place in late 2017 and early 2018. Does he still routinely meet up with Hunton attorneys? Does Wehrum or EPA have any other comment on these meetings?

I wanted to get this to you as soon as possible so you'd have time to review the information. My deadline is 2 p.m. tomorrow, March 28.

Thank you,

Alex Guillen | Energy Reporter | **POLITICO**PRO
1000 Wilson Boulevard, 8th Floor | Arlington, VA 22209
Phone: 703.341.4619
Email: aguillen@politico.com | Twitter: @alexcguillen
| Website: www.POLITICOPro.com

<Wehrum Hunton mtgs.pdf>

Message

From: Frye, Tony (Robert) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=58C08ABDFC1B4129A10456B78E6FC2E1-FRYE, ROBER]
Sent: 1/29/2019 3:51:31 PM
To: Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadddda2affa44-Harlow, Dav]; Greaves, Holly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=abcb6428b3df40a9a78b059a8ba59707-Greaves, Ho]; Hanson, Paige (Catherine) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=95adc1b2ac3b40ab9dc591801d594df8-Hanson, Cat]; Bodine, Susan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8c2cc6086fcc44c3be6b5d32b262d983-Bodine, Sus]; Traylor, Patrick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6d06c6b766c4b4b8bfdf6b0fea4b998-Traylor, Pa]; White, Elizabeth [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f8af641a6306479c9026142ef3b02bd7-White, Eliz]; Block, Molly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=60d0c681a16441a0b4fa16aa2dd4b9c5-Block, Moll]; Abboud, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6f5af791a1842f1adcc088cbf9ed3ce-Abboud, Mic]; Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Darwin, Henry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ae8e9d24eeb4132b25982e358efbd9d-Darwin, Hen]; Baptist, Erik [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=10fc1b085ee14c6cb61db378356a1eb9-Baptist, Er]; Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]; Cook, Steven [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=394f5dede6184bc083cf9390e49a192c-Cook, Steve]; Darwin, Veronica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc98aaf2f15a466baede3dab0e27a35e-Darwin, Ver]; Beck, Nancy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=168ecb5184ac44de95a913297f353745-Beck, Nancy]; Forsgren, Lee [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a055d7329d5b470fbaa9920ce1b68a7d-Forsgren, D]; McDonough, Owen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=10a92c71b552413694fed6fa08522f4f-McDonough,]; Ross, David P [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=119cd8b52dd14305a84863124ad6d8a6-Ross, David]; Wildeman, Anna [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=05dd0af69bfa40429e438b7646502b99-Wildeman, A]; Dunn, Alexandra [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=426d0177eaab4001a5c85f051565997e-Dunn, Alexa]; Dunlap, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=591eb15a268249dda0c05a7451f765c3-Dunlap, Dav]; Brazauskas, Joseph [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=babf7b77aeec4ffeaad446bb35e05b24-Brazauskas,]; Stoker, Michael B. [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dcb64b4e7edf48aabe8ef43996a4652e-Stoker, Mic]; Beach, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6b124299bb6f46a39aa5d84519f25d5d-Beach, Chri]; Wright, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=11616a3db06f4eceb13ea26c7e6dc1f0-Wright, Pet]; McIntosh, Chad [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e328de48699c4747ad3a421e3aa5e850-McIntosh, W]; Lopez, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b7b64b3b2f984708840a5f342309d460-Lopez, Pete]; Servidio, Cosmo [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f11f91d53e9a4cdaa8281be07e9034aa-Servidio, C]; Stepp, Cathy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=befdafc0fa1a425eae232f60ad9bda1d-Stepp, Cath]; Idsal, Anne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b1beca8121fb47a08e82b6bf2247a79b-Idsal, Anne]; Chancellor, Erin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ae6aeabeca754643bdb01c9f5b653ca6-Chancellor,]; Gulliford, Jim [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a3aa23ac3a36426495575d5dfd5a37c9-Gulliford,]; Benevento, Douglas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=93dba0f4f0fc41c091499009a2676f89-Benevento,]; Hladick, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b82d04419c42423a97bd7624a3a09908-Hladick, Ch]

CC: Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Palich, Christian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=330ad62e158d43af93fcbbece930d21a-Palich, Chr]

Subject: Acting-Administrator Wheeler's FINAL Nomination Hearing Binder

Attachments: 2019.01.29 - FINAL - Acting-Administrator Nomination Hearing Binder.zip

Hello All – Attached, please find the final digital copy of Acting-Administrator Wheeler's hearing binder from his nomination hearing on January 16th. Thank you all for your support in assembling the information. If you have any questions, please don't hesitate to let us know. Have a great day.

Best,
Tony

Tony Frye
Special Advisor
Office of Congressional Affairs
Environmental Protection Agency
Cell: Ex. 6

Message

From: Abboud, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B6F5AF791A1842F1ADCC088CBF9ED3CE-ABBOUD, MIC]
Sent: 5/31/2019 4:29:51 AM
To: Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Molina, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c1d68da1a4587866e1850f22a6ae5-Molina, Mic]; Ex. 6 Personal Privacy (PP) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6f061a85b2e14828934c1a85cc4d5122 Ex. 6 Personal Privacy (PP) Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Schiermeyer, Corry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b0332276a9784253a5a78f39eccf1f29-Schiermeyer]; McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]; Beach, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6b124299bb6f46a39aa5d84519f25d5d-Beach, Chri]; Idsal, Anne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b1beca8121fb47a08e82b6bf2247a79b-Idsal, Anne]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]
Subject: WSJ: Trump Administration Lifts Summer Ethanol Ban

Overall, really good article.

https://www.wsj.com/articles/trump-administration-lifts-summer-ethanol-ban-11559275260?redirect=amp#click=https://t.co/mb0IBQwY73

Trump Administration Lifts Summer Ethanol Ban

WASHINGTON—The Trump administration has decided to approve expanded use of ethanol fuel, a move that will help corn farmers hurt by the trade conflict with China—and that might pay political dividends for President Trump in farm-belt states such as Iowa.

Under the decision to be made public Friday, the Environmental Protection Agency will allow gasoline with a 15% mix of ethanol to be sold year-round, instead of just eight months a year, effective as soon as it is published in the Federal Register, which officials expect to happen within days.

The move has been opposed by oil companies and environmentalists, who object that it could lead to higher prices at the gas pumps and increase air pollution during the summer months when 15% ethanol fuels had been banned. They are expected to sue to try to block the move.

The decision could be a boon to farmers in places like Iowa, the No. 1 corn and ethanol-producing state that Mr. Trump won in the 2016 election and needs in the 2020 election. Mr. Trump plans to talk up the new policy in coming trips to Iowa and other farm-belt states, say people familiar with those plans.

EPA Administrator Andrew Wheeler said the changes weren't motivated by political considerations or to appease farmers who have lost crop sales as a result of retaliatory tariffs China imposed on U.S. crops. He framed the rule changes as a fix to a troubled program that will boost sales for farmers and ethanol producers.

"I think it is an effective compromise," Mr. Wheeler said in an interview. "What we're trying to do is maintain the integrity of the system, not play favorites on any one side."

Mr. Wheeler said the package also includes rule changes intended to reduce compliance costs for refiners, and that the agency backed away from other proposed changes because they might have the opposite effect, raising costs and volatility.

That is unlikely to be enough to satisfy the energy industry, which has promised to sue if the administration lifted the summer ban. The EPA in prior administrations has explicitly said it doesn't have the authority to allow summer sales. Mr. Wheeler and his team said their decision is a reinterpretation of the law.

Refiners are planning to fight EPA on that very point. Their response is likely to come within two months, because Clean Air Act provisions give anyone who wants to challenge the decision 60 days to do so, according to trade groups.

"We're disappointed that EPA ignored our comments and the plain language of the Clean Air Act, which makes clear that EPA lacks authority," Chet Thompson, leader of refiners' trade group American Fuel & Petrochemical Manufacturers, said in an emailed statement. "EPA has left us no choice but to pursue legal action to get this unlawful rule overturned."

Some oil companies expect they may lose market share to ethanol, and refiners have asked for more cost protections. That is setting up the most direct face-off yet between the administration and a typically staunch Republican ally that has already been rankled by White House positions on trade and shipping fuels.

Searching for a compromise, Mr. Trump hosted several Oval Office meetings on ethanol during his first two years in office. But, in exchange for ethanol expansions, refiners have asked for price caps or to throw speculators out of credit-trading markets that are part of the program. Both sides have publicly complained about and then rejected any deals.

The EPA decision is likely to expand ethanol sales by about 2% in the next five years, according to Growth Energy, an advocacy group for ethanol producers for which Mr. Wheeler formerly worked as a strategic consultant.

Former Trump administration trade negotiator Clete Willems talks about why it is in China's interest to sign a trade deal with the U.S.

ClearView Energy Partners LLC has forecast far less growth, but said sales may grow more in later years as year-round sales give more certainty to investors.

"We kind of look at it as a key that finally unlocks the door to greater demand opportunities in the long term," said Geoff Cooper, chief executive of the Renewable Fuels Association, another ethanol advocacy group. "I'd characterize this as a shot in the arm, but the farm economy and the ethanol industry are still very sick."

That sickness is largely from U.S. trade friction with China, Mr. Cooper said. China had been the third largest export market for U.S. ethanol, but it buys nothing now in response to U.S. tariffs on Chinese goods, he added.

Prices for commodities such as soybeans, corn and sorghum—already mired in a yearslong slump—fell this month to their lowest level in more than 10 years. Major U.S. agricultural exports to China have fallen by half in the past year, according to the Commerce Department. The administration has already offered $28 billion of aid in direct payments to farmers since last year.

Mr. Cooper sees the ethanol initiative as another White House effort to offset trade troubles.

Environmental groups opposed the change, pointing to studies in the past decade that suggest burning more ethanol can worsen air pollution. Subsidizing more corn production also causes environmental damage by encouraging farmers to plow over prairie and other wild areas, degrading water quality, shrinking wildlife habitat and raising the greenhouse-gas emissions that cause global warming, said David DeGennaro, policy specialist at the National Wildlife Federation.

"There's a couple of reasons this is good for [Mr. Trump] politically," Mr. DeGennaro said. "But the fact that this administration is continuing to ignore environmental consequences is extremely frustrating."

Mr. Wheeler said he doesn't expect an increase in smog from lifting the summer ban, and that fuels with higher ethanol content typically burn with the same effects as the lower-ethanol-content fuel already sold.

U.S. Senate Committee on Environment and Public Works
Hearing entitled, "Hearing on the Nomination of Andrew Wheeler to be Administrator of the Environmental Protection Agency"
January 16, 2019
Questions for the Record for Mr. Andrew Wheeler

Ranking Member Carper:

Your responses to questions for the record from the Committee's August 1, 2018 hearing left much to be desired. Many questions did not receive specific responses, which is troubling given that the Committee did not receive your answers for four months. Please ensure that your responses to these questions are not similarly deficient. Moreover, in light of the Agency's insistence on moving forward quickly with your confirmation hearing and the use of furloughed staff to prepare you for it, please do not attempt to justify a failure to provide any of the responses or requested materials on the shutdown, absent a concurrent request that further action on your nomination be postponed until after the EPA re-opens.

I appreciate your questions for the record following up on my January 16, 2019, confirmation hearing. The EPA has demonstrated that it takes inquiries from Congress very seriously. The Agency provided a thorough job of responding to the Questions for the Record from my prior confirmation hearing, and we are doing the same here while protecting our ability to complete reasoned and deliberative rulemaking on the actions that are in process. I am discouraged to learn from the Questions for the Record for this hearing that you found my answers deficient from a previous hearing although that concern has not been raised during our handful of meetings and discussions with you since that time. While maintaining those important executive branch equities, I will ensure that the longstanding practice of providing timely responses to Congressional inquiries continues, including producing documents as appropriate. If confirmed, I look forward to continuing to work with you and your staff to provide the information that Congress needs to perform its proper legislative function.

Questions on the Trump Administration's Proposed Fuel Economy and Greenhouse Gas Tailpipe Standards Rollback

I asked you a number of questions on this topic following your testimony at the August 1, 2018 hearing. You failed to provide specific responses. Please do so now promptly, and answer the additional questions, especially in light of your statement at the hearing that "We know that we need to finalize our [fuel economy and greenhouse gas tailpipe standards] proposal by March 30."

1. During the development of the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-26 Passenger Cars and Light Trucks", EPA officials met with OMB and NHTSA officials to convey their concerns about the proposal several times. They left numerous documents with OMB officials that are now part of the rulemaking docket[1].These

[1] https://www.regulations.gov/document?D=EPA-HQ-OAR-2018-0283-0453

ED_002687_00000418-00001

documents indicate that there are significant problems with the model that was used by NHTSA to develop the proposal to freeze fuel economy and greenhouse gas tailpipe standards from 2020-26. One such example is a document titled "Email_5_-_Email_from_William_Charmley_to_Chandana_Achanta_-_June_18,_2018%20(1).pdf". This 122 page long document includes a number of PowerPoint presentations EPA made to OMB and NHTSA staff along with additional documentation and analysis.

a. The document notes that "EPA analysis to date shows significant and fundamental flaws in CAFE model (both the CAFE version and the "GHG version")…. These flaws make the CAFE model unusable in current form for policy analysis and for assessing the appropriate level of the CAFE or GHG standards." Do you believe that each of these flaws were fully remedied before the rules were proposed? If so, please list the specific remedies that addressed each of EPA's concerns. If not, will you ensure that all necessary technical input from EPA's Office of Transportation and Air Quality is incorporated into the final rule in order to ensure that the rule cannot be successfully over-turned in court on grounds that the model on which it is based is significantly or fundamentally flawed?

As I explained in responding to a similar question arising out of my August 1, 2018 hearing before the Committee, the documents you reference were made available by EPA in the rulemaking docket, because they are part of the documentation of interagency review of the draft proposed rule. EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts.

In particular, with respect to the CAFE model, I would point out, that, as outlined in the Notice of Proposed Rulemaking, available at Docket No. EPA–HQ–OAR–2018–0283, having reviewed comments on the subject and having considered the matter fully, the agencies determined it is reasonable and appropriate to use DOE/Argonne's model for full-vehicle simulation, and to use DOT's CAFE model for analysis of regulatory alternatives. Using the CAFE model allows consideration of the following factors: the CAFE model explicitly evaluates the cost of compliance for each manufacturer, each fleet, and each model year; it accounts for lead time necessary for compliance by directly incorporating estimated manufacturer production cycles for every vehicle in the fleet, ensuring that the analysis does not assume vehicles can be redesigned to incorporate more technology without regard to lead time considerations; it provides information on safety effects associated with different levels of standards and information about many other impacts on consumers, and it calculates energy impacts (i.e., fuel saved or consumed) as a primary function, besides being capable of providing information about many other factors within EPA's broad Clean Air Act discretion to consider. *See* 83 Fed. Reg. 43,000-01.

As work on this rule is ongoing, it would not be appropriate for me to comment on whether, as you put it, "each of these flaws were fully remedied before the rules were proposed." We will be developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

b. One of the main contributors to the NHTSA conclusions that the augural standards would cause thousands of additional deaths is NHTSA's "consumer choice" module, which asserts that making the fleet more fuel efficient will cause people to keep their less safe, older vehicles for longer, and that this will mean there are more unsafe vehicles on the road (because newer vehicles have more safety technologies). The document states that EPA believed this NHTSA model was flawed, because it predicts an additional 26 million non-existent vehicles would be in the 2016 fleet and 46 million additional non-existent vehicles in the 2030 fleet. For context, this would represent a 15-20% increase in registered vehicles. The document also notes that this problem appeared to be un-remedied several months after EPA first raised it. Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

With respect to the consumer choice model as it predicts fleet turnover, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether, as you put it, "this problem [was] remedied in the proposed rule." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

c. The document also found that NHTSA's consumer choice model predicts an unexplained, and apparently fictitious 10-15% increase in vehicle miles traveled (VMT). Specifically, the model somehow predicts people will drive an extra 239 billion miles in 2016 and 302 billion more miles in 2030. The increased deaths associated with higher efficiency standards in the NHTSA model are highly correlated to VMT (more driving equals more accidents equals more deaths). It would thus seem that EPA believes that the NHTSA safety numbers are predicated on an entirely fictitious driving scenario. Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

With respect to the consumer choice model as it predicts VMT, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether, as you put it, "this problem [was] remedied in the proposed rule." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

d. The document also notes that NHTSA does not accurately model the manner in which automobile manufacturers trade credits as part of their compliance strategies, observing that NHTSA does not assume that compliance credits are traded between manufacturers' car and truck fleets (which is the manufacturers' current practice), and that this has the effect of over-estimating compliance costs. Was this modeling problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

   With respect to the modeling of credit trading, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether, as you put it, "this modeling problem [was] remedied in the proposed rule." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

e. The document observes that NHTSA's model overestimates the costs of particular technologies compared to their actual costs and use in the real world. The model also reportedly selects the most expensive technology packages to meet the standards, which overestimates the most cost-effective ways to do so by $1-2,000 per vehicle. Do you agree that manufacturers would be more likely to select the most cost-effective set of technologies with which to meet standards, rather than the least cost-effective set of technologies? If not, why not? Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

With respect to the modeling of technology cost and technology selection, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether, as you put it, "this problem [was] remedied in the proposed rule." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

f. The document stated that the NHTSA model omitted the benefits of some fuel-efficient technologies entirely, while others were erroneously inputted into the model. For example, 'start/stop' technology, a technology that causes engines to automatically shut off while vehicles are stopped in traffic (and thus use no fuel), is estimated to have a negative effect on fuel-efficiency, which is simply not plausible. Were these problems remedied in the proposed rule? If so, how? If not, will you ensure that they are remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

With respect to the modeling of fuel-efficient technologies, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether, as you put it, "these problems [were] remedied in the proposed rule." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

g. The document observed that NHTSA's model appears to add vehicle miles travelled in unexplained ways. For example, it observed that as many as 25 billion more miles of driving were predicted in a given year, even when the rebound effect (a measure of how much extra driving consumers are expected to do as a result of having more fuel-efficient vehicles) was set to 0 percent. The document observes that NHTSA's model actually predicts less driving when the rebound effect was set to 20 percent (meaning 20% more driving by consumers in more fuel-efficient vehicles would have been included in the model) than when it was kept to 0 percent. This suggests that NHTSA's model is incapable of predicting anything accurately, separate and apart from whether one agrees with its policy premise. Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

With respect to the modeling of VMT, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether, as you put it, "this problem [was] remedied in the proposed rule." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

h. The document states that NHTSA's "Proposed standards are detrimental to safety, rather than beneficial" once NHTSA's modeling errors were corrected. In fact, EPA found that the proposed standards result in "an average increase of 17 fatalities per year in VYs 2036-2045" relative to the current standards. Do you agree with this conclusion? If not, why not?

With respect to the modeling of safety effects, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to respond to your query whether I "agree with this conclusion." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

i. The document states that the NHTSA model projects that the current standards result in 8,000 fewer new automobiles sold annually in CYs 2021-2032, but that the used vehicle fleet would grow by 512,000 vehicles per year. That means that for every new fuel-efficient vehicle that consumers do not purchase (because NHTSA predicts their costs will be too high), somehow an additional 60 used vehicles will remain in the fleet. Do you agree that this scenario is simply implausible in the real world, as the EPA document points out? If not, why not? Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

With respect to the modeling of new sales and fleet size, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query whether I "agree that this scenario is simply implausible in the real world." We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

j. In draft comments submitted to OMB on June 29, EPA commented that more than 90% of the net benefits for which the proposed rule to freeze fuel economy and greenhouse gas tailpipe standards takes credit are in fact benefits associated with vehicles manufactured prior to 2021. EPA attributed this to NHTSA's flawed consumer choice model, and questioned whether these could technically be attributable to the actual post-2021 rule. What would the net benefits of the preferred alternative— and for each of the other seven alternatives included in the NPRM — be if the agencies were to compare the costs to the benefits of cars manufactured within the MY 2021-29 cohort timeframe?

With respect to the modeling of benefits, EPA and NHTSA are working collaboratively in developing this proposed rule and working through modeling methods and technical inputs and assumptions is a necessary and critical aspect of the agencies' joint rulemaking development efforts. As this work is ongoing, it would not be appropriate for me to comment on your query regarding the "net benefits of the preferred alternative" and the other alternatives. We are developing responses to the issue you raise here as part of our joint effort to finalize this important rule. We will not take definitive positions on any issues until the rule is final.

2. Please provide a list of all EPA employees or contractors who have been working on the fuel economy and greenhouse gas tailpipe standards rule since December 29, 2018, including a description of what precisely each individual has been doing and how much time they have spent on each task.

I and other Senate-confirmed senior managers have conferred on this rule. No career employees worked on the rulemaking during the shutdown.

3. I have been informed that on July 20, 2018, prior to the finalization and public release of the proposed roll-back, you received a briefing from EPA's career staff that consisted of about 20 slides (and a 3-page appendix) and lasted about an hour. The briefing described EPA career staff's significant concerns with the proposed rule, including their concern that the proposal "does not include EPA's technical assessment or input," that NHTSA failed to incorporate any of EPA's technical analysis or feedback, and that it was clear to EPA that "NHTSA doesn't want to engage EPA on technical aspects of NHTSA's analysis." That briefing also included the staff's request that EPA's logo be removed from the technical analysis document used to support the proposed rollback in light of the fact that no EPA input was included in it.

a. Please provide me with a copy of the briefing slides.

The requested briefing slides include information that relates to a pending or contemplated action by EPA and are therefore deliberative and pre-decisional. We will provide any decisional documents in the administrative record for future final actions and can supply the final version at that time.

b. You have repeatedly asserted in both public and private meetings that the proposed rollback will save lives. For example, in your January 16 nominations hearing you stated that "Under our proposal, we have submitted that there will be 1,000 lives saved a year under our CAFE proposal. I neglected to mention that earlier, but I think that is very important for everyone to understand." Please provide me with a detailed explanation for why you have seemingly discounted the views and technical input of EPA's career staff when making these statements.

I greatly value the views and technical input of EPA career staff. I have not in any way discounted them. As to the analysis of the vehicle safety issues you reference, EPA is working in conjunction with NHTSA on this joint rulemaking, and NHTSA is taking the lead with respect the safety implications at issue.

Further, I would point out, that, as outlined in the Notice of Proposed Rulemaking, available at Docket No. EPA–HQ–OAR–2018–0283, having reviewed comments on the subject and having considered the matter fully, the agencies determined it is reasonable and appropriate to use DOE/Argonne's model for full-vehicle simulation, and to use DOT's CAFE model for analysis of regulatory alternatives. Using the CAFE model allows consideration of the following factors: the CAFE model explicitly evaluates the cost of compliance for each manufacturer, each fleet, and each model year; it accounts for lead time necessary for compliance by directly incorporating estimated manufacturer production cycles for every vehicle in the fleet, ensuring that the analysis does not assume vehicles can be redesigned to incorporate more technology without regard to lead time considerations; it provides information on safety effects associated with different levels of standards and information about many other impacts on consumers, and it calculates energy impacts (i.e., fuel saved or consumed) as a primary function, besides being capable of providing information about many other factors within EPA's broad Clean Air Act discretion to consider. *See* 83 Fed. Reg. 43,000-01.

c. In your testimony, you also stated that the proposed rollback "would decrease the cost of a new car by $2,300." It is my understanding that the briefing you received on July 20, 2018 included a chart showing that NHTSA's per vehicle cost estimates associated with the current standards were more than double EPA's estimates. Please provide me with a detailed explanation for why you have seemingly discounted the views and technical input of EPA's career staff when making these statements.

Again, I have discounted neither the views nor the technical input provided by EPA career staff. As I previously noted, EPA and NHTSA are working collaboratively in this joint rulemaking effort. Further, with respect to the cost modeling, I would point out, that, as outlined in the Notice of Proposed Rulemaking, available at Docket No. EPA–HQ–OAR–2018–0283, having reviewed comments on the subject and having considered the matter fully, the agencies determined it is reasonable and appropriate to use DOE/Argonne's model for full-vehicle simulation, and to use DOT's CAFE model for analysis of regulatory alternatives. Using the CAFE model allows consideration of the following factors: the CAFE model explicitly evaluates the cost of compliance for each manufacturer, each fleet, and each model year; it accounts for lead time necessary for compliance by directly incorporating estimated manufacturer production cycles for every vehicle in the fleet, ensuring that the analysis does not assume vehicles can be redesigned to incorporate more technology without regard to lead time considerations; it provides information on safety effects associated with different levels of standards and information about many other impacts on consumers, and it calculates energy impacts (i.e., fuel saved or consumed) as a primary function, besides being capable of providing information about many other factors within EPA's broad Clean Air Act discretion to consider. *See* 83 Fed. Reg. 43,000-01.

Questions on EPA's Proposed Mercury and Air Toxics Standards Rollback

4. In EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards, it states that, "while there are unquantifiable HAP [hazardous air pollutant] benefits and significant monetized PM co-benefits associated with MATS, the Administrator has concluded that the identification of these benefits is not sufficient, in light of the gross imbalance of monetized costs and HAP benefits, to support a finding that is appropriate and necessary to regulate EGUs under CAA section 112."[2]

[2]EPA, "National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units -- Reconsideration of Supplemental Finding and Residual Risk and Technology Review" (Dec 2018), https://www.epa.gov/sites/production/files/2018-12/documents/fnmatsfindingandrtr_12_2018wdisc.pdf; Hereafter called EPA Revised Supplemental Finding Proposal, 2018.

a. The proposed revision state that, "with the MATS rule in place, the estimated inhalation cancer risk to the individual most exposed to actual emissions from the source category is 9-in-1 million." Such a risk is higher than the 1-in-1 million threshold provided in the Clean Air Act as the threshold to delist a source category. Do any documents in the proposal docket estimate what the inhalation cancer risk would be if the MATS rule was rescinded?

EPA has not proposed to revise the MATS standards that control mercury emissions. EPA is not proposing to remove, or delist, electric generating units from the list of source categories subject to regulation under Section 112, nor has it proposed to rescind or weaken the emission standards to which those units are currently subject. The proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review, were it to be finalized, would have no effect on mercury emissions reduction levels required under the existing MATS rule.

b. The Clean Air Act does not permit the delisting of any source category with emissions that pose a cancer risk greater than 1 in 1,000,000 to the most exposed individual, regardless of the cost. Why does the proposal fail to regulate EGUs under Section 112 which pose a far greater cancer risk?

The proposal does not "fail to regulate EGUs"; EPA has proposed to maintain the existing standards. EPA is not proposing to remove, or delist, electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind or weaken the emission standards to which those units are currently subject.

c. Given that we already know the inhalation cancer risk is greater than 1 in 1,000,000, and EPA's proposal asserts that this is "not sufficient" to determine it is "appropriate and necessary" to regulate EGUs under Section 112, what would in EPA's view be a "sufficient" cancer risk to deem that it is "appropriate and necessary" to regulate?

EPA's proposed analysis of the statutory term "appropriate and necessary" is contained in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, available at https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. The language that you quote appears in EPA's discussion of this statutory provision at pages 26-31 and refers to the relationship between the monetized and unmonetized direct and indirect costs and benefits of the 2011 MATS rule, as informed by the Supreme Court's opinion in *Michigan v. EPA*. It is important to note that the EPA is not proposing to remove, or delist,electric generating units from the list of source categories subject to regulation under Section 112, nor has it proposed to rescind or weaken the emission standards to which those units are currently subject. The analysis presented in the NPRM specifically addresses the EGU-specific provision in 112(n) and does

not relate to the references to 1 in 1,000,000 cancer risk found in the delisting provision at section 112(d)(9) and the residual risk review provision at section 112(f)(2).

d. How did the agency weigh "unquantifiable HAP benefits" in the proposal's formal cost-benefit analysis to ensure benefits that could not be monetized are not underrepresented?

With respect to the relationship between unquantifiable HAP benefits and monetized benefits, the bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. EPA expects to receive comments on a number of related issues upon publication of the NPRM in the Federal Register, and it will respond to these comments as part of any final action.

As you will see, the accompanying memorandum presents a summary of costs and the target pollutant benefits that EPA views as pertinent to the appropriate and necessary finding under section 112(n)(1)(A). Target pollutant benefits consist of the quantified and unquantified benefits from reductions in hazardous air pollutants. EPA also estimated that the MATS rule would result in ancillary benefits from the concomitant reduction of non-target pollutants. These include the quantified PM2.5 co-benefits and other unquantified co-benefits that occur as a result of reductions of non-HAP emissions. However, for reasons described in the preamble and based on the specific statutory direction in 112(n)(1)9A), EPA proposes that the HAP benefits, both quantified and unquantified, are the most relevant portion of the analysis for purposes of the appropriate and necessary finding. Therefore, in evaluating the pertinent impacts of this proposed action, EPA has focused on the target pollutant impacts. EPA has proposed to conclude that the quantifiable portion of the target HAP benefits are not even moderately commensurate with the compliance cost of the rule, as the difference between costs and HAP benefits is substantial using either discount rate.

e. Please provide detailed information on all the unquantifiable HAP benefits that were considered in this proposal and explain why EPA could not ascribe a dollar value to these benefits.

With respect to unquantifiable HAP benefits, the bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. EPA expects to receive comments on a number of related issues upon publication of the NPRM in the Federal Register, and it will respond to these comments as part of any final action.

As discussed in the NPRM, even with the substantial monetized particulate matter co-benefits and the significant unquantified HAP benefits associated with MATS, the gross disparity between monetized costs and HAP benefits, which we believe to be the primary focus of the Administrator's determination in Clean Air Act section 112(n)(1)(A), is too large to support an affirmative appropriate and necessary finding. As explained in the MATS Regulatory Impact Analysis, the only health benefit attributed to reducing mercury emissions that the EPA could quantify and monetize was IQ loss in children born to a subset of recreational fishers who consume fish during pregnancy. The EPA also identified benefits associated with regulation of HAP from EGUs that could not be quantified. These effects include impacts of mercury on human health (including neurologic, cardiovascular, genotoxic, and immunotoxic effects), a variety of adverse health effects associated with exposure to certain non-mercury HAP (including cancer, and chronic and acute health disorders that implicate multiple organ systems such as the lungs and kidneys), and effects on wildlife and ecosystems.

5. If a benefit cannot be monetized, do you consider it to be worth less than a benefit that can be monetized? If so, why? If not, why not?

As discussed in the answer to the previous question, EPA evaluated monetized and non-monetized costs and benefits in its NPRM. How EPA treats non-monetized benefits in the proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review is explained in the NPRM signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant

benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants.

6. When the 1990 Clean Air Act Amendments were written – which included the current version of Section 112(n)(1)(A) of the Clean Air Act - there were few, if any, quantifiable data available on cancer risks of air toxics and no quantifiable data whatsoever available for non-cancer risks, like birth and neurological defects.[3] Despite the inability to put a dollar amount on the benefits of reducing these air toxics, Congress still found it necessary to require EPA to pursue robust regulations to address major sources of air toxics emissions. At the same time, Congress indicated that it was well aware of the limitations of relying exclusively on cost-benefit analysis when assessing air toxics. In the Senate Committee report on S. 1630 in the 101st Congress, it states, "[T]he public health consequences of substances which express their toxic potential only after long periods of chronic exposure will not be given sufficient weight in the regulatory process when they must be balanced against the present day costs of pollution control and its other economic consequences.[4]" Yet, in EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards, the agency based the decision to reverse its "appropriate and necessary" finding solely on a formal cost-benefit analysis that does not incorporate this clear Congressional intent.

    a. Where in the 1990 CAA's legislative history does EPA believe that Congress required the agency to conduct a formal cost-benefit analysis to make an "appropriate and necessary" determination? Please provide a citation to the relevant portion of the legislative history.

    With respect to legislative history, the bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the NPRM signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. Information responsive to your questions, including EPA's understanding of congressional intent with respect to Section 112(n)(1) of the Clean Air Act, may be found in those documents. In particular, pages 24 – 26 of the .pdf version of the NPRM currently available at this link discusses the statutory text, context, and purpose of CAA section 112(n)(1)(A) and the legislative history of CAA section 112. Of particular note, the December 2017 NPRM, in discussing the 2016 supplemental "appropriate and necessary" analysis, states:

[3] Legislative History 1990 Clean Air Act Amendments, H.Rept 101-490 Part 1, 101st Congress (1989-1990).
[4] Legislative History 1990 Clean Air Act Amendments, S.Rept 101-228, 101st Congress (1989-1990).

"The EPA's justification for its equal reliance on the co-benefits of non-HAP emissions when setting the MATS standards in its CAA section 112(n)(1)(A) determination was flawed. The Agency erred in concluding that the statutory text of CAA section 112(n)(1)(A) and the legislative history of CAA section 112 more generally 'expressly support[ed]' the position that it was reasonable to consider co-benefits, and give equal weight to those co-benefits, in a CAA section 112(n)(1)(A) appropriate and necessary finding. 81 FR 24439. The 2016 Supplemental Finding pointed to CAA section 112(n)(1)(A)'s directive to 'perform a study of the hazards to public health reasonably anticipated to occur as a result of emissions by electric utility steam generating units of [HAP] after imposition of the requirements of [the CAA],' and noted that the requirement to consider co-benefit reduction of HAP resulting from other CAA programs highlighted Congress' understanding that programs targeted at reducing non-HAP pollutants can and do result in the reduction of HAP emissions. *Id.* The finding also noted that the Senate Report on CAA section 112(d)(2) recognized that maximum achievable control technology (MACT) standards would have the collateral benefit of controlling criteria pollutants. *Id.* However, these statements acknowledging that reductions in HAP can have the collateral benefit of reducing non-HAP emissions and vice versa, provides no support for the proposition that any such co-benefits should be the Agency's primary consideration when making a finding under CAA section 112(n)(1)(A). Indeed, it would be highly illogical for the Agency to make a determination that regulation under CAA section 112, which is expressly designed to deal with HAP, is justified principally on the basis of the criteria pollutant impacts of these regulations. That is, if the HAP-related benefits are not at least moderately commensurate with the cost of HAP controls, then no amount of co-benefits can offset this imbalance for purposes of a determination that it is appropriate to regulate under CAA section 112(n)(1)(A). *Cf. Michigan*, 135 S. Ct. at 2707 ('One would not say that it is even rational, never mind "appropriate," to impose billions of dollars in economic costs in return for a few dollars in health or environmental benefits.')."

*** * * ***

"In sum, the Agency did not provide any meaningful support for its conclusion that the statutory text and legislative history support placing consideration of co-benefits in a CAA section 112(n)(1)(A) determination on equal footing with the consideration of HAP-specific benefits and, as explained below, the statutory text strongly supports the use of a different approach."

b. Do you agree with Congress' assessment that the benefits of reducing air toxics are not given significant weight in a formal cost-benefit analysis because it is difficult, and sometimes impossible, to put a dollar value on the benefits of reducing air toxic emissions? If not, why not? If so, why?

Regarding this question, with respect to cost-benefit analysis of air toxic emissions reductions, I would direct your attention in particular, to pages 29-31 of the .pdf version of the NPRM (footnotes omitted):

"The total cost of compliance with MATS ($7.4 to $9.6 billion annually) vastly outweighs the monetized HAP benefits of the rule ($4 to $6 million annually). Even with the substantial monetized PM co-benefits and the significant unquantified HAP benefits associated with MATS, the gross disparity between monetized costs and HAP benefits, which we believe to be the primary focus of the Administrator's determination in CAA section 112(n)(1)(A), is too large to support an affirmative appropriate and necessary finding. As explained in the MATS RIA, the only health benefit attributed to reducing Hg emissions that the EPA could quantify and monetize was IQ loss in children born to a subset of recreational fishers who consume fish during pregnancy. The EPA also identified benefits associated with regulation of HAP from EGUs that could not be quantified. These effects include impacts of Hg on human health (including neurologic, cardiovascular, genotoxic, and immunotoxic effects), a variety of adverse health effects associated with exposure to certain non-Hg HAP (including cancer, and chronic and acute health disorders that implicate multiple organ systems such as the lungs and kidneys), and effects on wildlife and ecosystems. The EPA acknowledges the importance of these benefits and the limitations on the Agency's ability to monetize HAP-specific benefits. The EPA agrees that such benefits are relevant to any comparison of the benefits and costs of a regulation. Because unquantified benefits are, by definition, not considered in monetary terms, the Administrator must evaluate the evidence of unquantified benefits and determine the extent to which they alter any conclusions based on the comparison of monetized costs and benefits. The MATS RIA accounts for all the monetized and unquantified benefits of the rule, and the EPA's proposed approach to the cost-benefit analysis in the RIA does not discount the existence or importance of the unquantified benefits of reducing HAP emissions. Instead, after fully acknowledging the existence and importance of such benefits, the EPA proposes to conclude that substantial and important unquantified benefits of MATS are not sufficient to overcome the significant difference between the monetized benefits and costs of this rule. As noted, the unquantified HAP-related benefits of MATS involve only a limited set of mercury and other HAP-related morbidity effects in humans and ecosystems."

7. As mentioned in the previous question, EPA appears to be ignoring Congressional intent when it comes to making "appropriate and necessary" determinations by ignoring the real benefits of reducing exposure to hazardous air pollution, especially those benefits that cannot be monetized. Since EPA is failing to follow the Clean Air Act's requirements, please state what you consider to be a safe level of exposure to a carcinogenic hazardous air pollutant.

   I disagree that EPA is "ignoring [c]ongressional intent" or "failing to follow the Clean Air Act's requirements" in the proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review. For an explanation of EPA's position regarding these matters, I would direct your attention to the explanation provided in the NPRM signed on December 27, 2018, and which will be available in the supporting documents in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. Information responsive to your questions, including EPA's understanding of congressional intent with respect to Section 112(n)(1) of the Clean Air Act, may be found in those documents. In particular, pages 24 – 26 of the .pdf version of the NPRM currently available at the link discusses the statutory text, context, and purpose of CAA section 112(n)(1)(A) and the legislative history of CAA section 112. Particularly relevant passages are set forth in response to Question 6 above.

8. As mentioned in question #6, EPA appears to be ignoring congressional intent when it comes to making "appropriate and necessary" determinations by ignoring the real benefits of reducing exposure to hazardous air pollution, especially those benefits that cannot be monetized. Since EPA is failing to follow the Clean Air Act, please state what you consider to be a safe level of exposure to an acid gas hazardous air pollutant.

   I disagree that EPA is "ignoring congressional intent when it comes to making 'appropriate and necessary' determinations" or "failing to follow the Clean Air Act" in the proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review. For an explanation of EPA's position regarding these matters, I would direct your attention to the explanation provided in the NPRM signed on December 27, 2018, and which will be available in the supporting documents in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. Information responsive to your questions, including EPA's understanding of congressional intent with respect to Section 112(n)(1) of the Clean Air Act, may be found in those documents. In particular, pages 24 – 26 of the .pdf version of the NPRM discusses the statutory text, context, and purpose of CAA section 112(n)(1)(A) and the legislative history of CAA section 112. Particularly relevant passages are set forth in response to Question 6 above.

9. As mentioned in question #6, EPA appears to be ignoring congressional intent when it comes to making "appropriate and necessary" determinations" by ignoring the real benefits of reducing exposure to hazardous air pollution, especially those benefits that cannot be monetized. Since EPA is failing to follow the Clean Air Act, please state what you consider to be a safe level of exposure to a heavy metal hazardous air pollutant?

   I disagree that EPA is "ignoring congressional intent when it comes to making 'appropriate and necessary' determinations" or "failing to follow the Clean Air Act" in the proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review. For an explanation of EPA's position regarding these matters, I would direct your attention to the explanation provided in the NPRM signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. Information responsive to your questions, including EPA's understanding of congressional intent with respect to Section 112(n)(1) of the Clean Air Act, may be found in those documents. In particular, pages 24 – 26 of the .pdf version of the NPRM discusses the statutory text, context, and purpose of CAA section 112(n)(1)(A) and the legislative history of CAA section 112. Particularly relevant passages are set forth in response to Question 6 above.

10. EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards claims the proposal does not, "present a disproportionate risk to children.[5]"

    a. What analysis in the docket shows that rescinding or weakening MATS is not a threat to children's health?

       EPA is not rescinding or weakening the MATS standards that control mercury emissions. EPA is not proposing to remove, or delist, electric generating units from the list of source categories subject to regulation under Section 112, nor proposing to rescind or weaken the emission standards to which those units are currently subject. Accordingly, the proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review, were it to be finalized, would present no "threat to children's health."

[5] EPA Revised Supplemental Finding Proposal, 2018.

b. What analysis in the docket shows that the benefits of reducing mercury exposure to children from our nation's largest source of mercury is "insufficient" to trigger a determination that it is "appropriate and necessary" to regulate EGUs under Section 112 of the Clean Air Act?

I direct your attention to the document entitled "Residual Risk Assessment for the Coal- and Oil-Fired EGU Source Category in Support of the 2019 Risk and Technology Review Proposed Rule" which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants.

11. Are there currently any EGUs that are not compliant with the Mercury and Air Toxics Standards rule? If so please provide me with a list.

I understand that numerous coal-fired units shut down in whole or in part because of the costs of MATS compliance. Of those that remain operational, certain units firing eastern bituminous coal refuse may have received extensions of state requirements until early 2019. The MATS proposed rule requested comment on several important issues related to these units.

12. Is EPA aware of any blackouts, brownouts or extreme retail consumer price spikes that occurred as a direct result of the Mercury and Air Toxics Standards rule? If so, please share the analysis that demonstrates the connection of these events with the MATS rule.

The direct and indirect compliance cost of MATS measures are in the billions of dollars. It is my understanding that electricity consumers ultimately bear this cost.

13. Prior to implementation of the MATS rule, there were more mercury fish consumption advisories in this country than any other chemical or pollutant combined.

a. Are there still fish consumption advisories for mercury in this country? If so, please provide copies.

Yes. While EPA does not comprehensively track all advisories, States, territories, and tribes provide advice on fish caught in waters in their jurisdiction. EPA has compiled contact information and website for all of these entities and their advisories at: https://fishadvisoryonline.epa.gov/Contacts.aspx. More information on Fish and Shellfish Advisories and Safe Eating Guidelines is available at:

https://www.epa.gov/choose-fish-and-shellfish-wisely/fish-and-shellfish-advisories-and-safe-eating-guidelines.

b. How many states currently have one or more fish consumption advisories for mercury?

States, territories, and tribes provide advice on fish caught in waters in their jurisdiction. EPA has compiled contact information and website for all of these entities and their advisories at: https://fishadvisoryonline.epa.gov/Contacts.aspx.

c. Do you believe consuming mercury-laden fish poses any risk to pregnant women or their unborn babies in this country? If so, why? If so, what is the risk?

I believe that consuming mercury-laden fish poses risk to pregnant women or their unborn babies. More information on these risks is available at: https://www.epa.gov/mercury/health-effects-exposures-mercury.

d. In the docket for the 2018 proposed revision to the Supplemental Cost Finding for MATS, what data does EPA provide that led you to believe there was not a "sufficient" mercury risk from power plants to deem it "appropriate and necessary" to regulate EGUs under Section 112 of the Clean Air Act?

I direct your attention to the document entitled "Residual Risk Assessment for the Coal- and Oil-Fired EGU Source Category in Support of the 2019 Risk and Technology Review Proposed Rule" which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants.

14. In 2011, were coal-fired EGUs the largest source of unregulated mercury pollution in this country? If yes, please include by what order of magnitude coal plants were the largest source over other sources.

In the final MATS rule in 2012, EPA stated: "In 2005, U.S. EGUs emitted 50 percent of total domestic anthropogenic Hg emissions . . . ." (77 FR 9310). This figure did not include non-anthropogenic sources, including volcanic eruptions and emissions from the ocean, or substantial international sources. Estimates of annual global mercury emissions from both natural and anthropogenic sources are in the range of 5,000 to 8,000 metric tons per year, while 2011 U.S. anthropogenic mercury emissions were 52 tons.

Information responsive to your questions may be found in the NPRM signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. More information on mercury emissions can also be found in EPA's National Emissions Inventory at: https://www.epa.gov/air-emissions-inventories.

15. In EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards, the agency is, "soliciting comment, however, on whether the EPA has the authority or obligation to delist EGUs from CAA section 112(c) and rescind (or to rescind without delisting)" the Mercury and Air Toxics Standards (MATS) Rule.[6]

    a. If the agency decides to delist "EGUs from CAA section 112(c)," which I do not believe it has the authority to do, would EPA have the authority to issue mercury and air toxics standards for the utility sector under Section 112 of the Clean Air Act, and would utilities legally be required to run control technologies to meet MATS?

    EPA is not proposing to rescind or weaken the MATS standards that control mercury emissions. EPA is not proposing to remove, or delist, EGUs from Section 112. As noted on pages 32 – 33 of the .pdf version of the NPRM currently available at https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants, EPA is proposing to conclude that reversing the Clean Air Act section 112(n)(1)(A) determination, if finalized, would not have the effect of removing EGUs from the CAA section 112(c)(1) source category list.

    b. If the agency rescinds the MATS rule, which I do not believe EPA has the authority to do, would that not only weaken the standards, but remove them altogether? If MATS is removed, would utilities have any legal responsibility to run currently-implemented control technology used to comply with MATS?

    EPA is not proposing to rescind or weaken the MATS standards that control mercury emissions. EPA is not proposing to remove, or delist, EGUs from Section 112. As noted on pages 32 – 33 of the .pdf version of the NPRM currently available at https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants, EPA is proposing to conclude that the reversal of the Clean Air Act section 112(n)(1)(A) determination, if finalized, would not have the effect of removing EGUs from the CAA section 112(c)(1) source category list.

[6] EPA Revised Supplemental Finding Proposal, 2018.

16. During your confirmation hearing, several members expressed concerns about EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards. During an exchange on this issue with Senator Cardin, you stated that, "on MATS, I don't think you can roll back a regulation that has been fully implemented. And the MATS requirements for the pollution control equipment has been fully implemented. And I don't believe, I honestly do not believe that that equipment will be turned off or removed under our proposal."

    a. If you "don't think you can roll back a regulation that has been fully implemented" as you stated to Senator Cardin during your confirmation hearing, then why is your agency requesting comment on EPA's authority and potential obligation to delist EGUs from Section 112 of the Clean Air Act and/or rescind the MATS rule?

    EPA is not proposing to rescind or weaken the MATS standards that control mercury emissions. EPA is not proposing to remove, or delist, EGUs from Section 112. The bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. EPA expects to receive comments on a number of related issues upon publication of the NPRM in the Federal Register, and it will respond to these comments as part of any final action. As noted on pages 32 – 33 of the .pdf version of the NPRM currently available at the link, EPA is proposing to conclude that the reversal of the Clean Air Act section 112(n)(1)(A) determination, if finalized, would not have the effect of removing EGUs from the CAA section 112(c)(1) source category list. It is appropriate for EPA to take account of, and seek comment on, issues of relevance to the proposed action, in the interests of increasing the legal defensibility and policy soundness of any final determination in this matter.

    b. Have the courts ever vacated an EPA rule that has been implemented? If yes, which rules, and did it ever result in control technology being uninstalled or turned off?

    Over the years, courts have found various EPA rules to be contrary to law or otherwise unreasonable, with the rule sometimes being vacated and sometimes not being vacated. In turn, those court actions have had different effects on sources' compliance obligations.

c. Within the revised Supplemental Cost Finding for the Mercury and Air Toxics Standards 2018 proposal, EPA cites that, "[A]gencies have inherent authority to reconsider past decisions and to revise, replace, or repeal a decision to the extent permitted by law and supported by a reasoned explanation." 7 When you stated to Senator Cardin that you, "don't think you can roll back a regulation that has been fully implemented," did that mean you didn't think the agency could do so legally and if so, how does that sync with the argument made in the proposal that the agency has inherent authority to reconsider past decisions?

EPA is not proposing to rescind or weaken the MATS standards that control mercury emissions. EPA is not proposing to remove, or delist, electric generating units from the list of source categories subject to regulation under Section 112, nor proposing to rescind the emission standards to which those units are currently subject. As noted on pages 32 – 33 of the .pdf version of the NPRM currently available at https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants, EPA is proposing to conclude that the reversal of the Clean Air Act section 112(n)(1)(A) determination, if finalized, would not have the effect of removing EGUs from the CAA section 112(c)(1) source category list. As stated in the NPRM, "Consistent with [the D.C. Circuit opinion] *New Jersey*, the EPA is proposing to find that this reversal of the CAA section 112(n)(1)(A) determination, if finalized, would not have the effect of removing EGUs from the CAA section 112(c)(1) source category list. Because EGUs would remain on the CAA section 112(c)(1) source category list, the CAA section 112(d) standards for that category, as promulgated in the MATS rule, would be unaffected by final action on this proposal."

d. If the courts end up vacating the MATS rule because of EPA's decision to finalize its proposal finding that it is no longer "appropriate and necessary" to regulate under Section 112, would you still stand by your comments to Senator Cardin that you "honestly do not believe that that equipment will be turned off or removed?" If so, legally speaking, what would require utilities to run control technologies currently being used to meet MATS if the MATS rule were to be vacated or rescinded?

I stand by my testimony. EPA's proposal would not rescind or weaken the MATS standards. Otherwise, EPA has not established a position on the speculative issue your question raises.

[7] EPA Revised Supplemental Finding Proposal, 2018.

e. Please list all the section 126 petitions your agency has during this Administration in which petitioners have expressed concerns that a utility upstream is turning off or not optimizing installed air control technologies and as a result is creating ozone transport concerns for downwind states. Please identify which of these petitions were rejected since you became Acting Administrator.

Section 126 of the Clean Air Act gives a state the authority to ask EPA to set emissions limits for sources of air pollution in other states whose emissions contribute significantly to nonattainment or interfere with maintenance of one or more National Ambient Air Quality Standard (NAAQS) in the petitioning state. Information on Clean Air Act Section 126 petitions related to ozone NAAQS are available at: https://www.epa.gov/ground-level-ozone-pollution/ozone-national-ambient-air-quality-standards-naaqs-section-126. Below are links to Section 126 petitions related to the 2008 or 2015 ozone NAAQS submitted since 2016 and their current status:

- **New York Petition - May 2018: https://www.epa.gov/ground-level-ozone-pollution/new-york-section-126-petition-may-2018.**
- **Delaware Petition - November 28, 2016: https://www.epa.gov/ground-level-ozone-pollution/delaware-section-126-petition-november-28-2016.**
- **Delaware and Maryland Petitions - November 2016: https://www.epa.gov/ground-level-ozone-pollution/delaware-and-maryland-126-petitions-november-2016.**
- **Delaware Petition - August 8, 2016: https://www.epa.gov/ground-level-ozone-pollution/delaware-126-petition-august-8-2016.**
- **Delaware Petition - July 7, 2016**
- **Connecticut Petition - July 2016**

In most cases, we have denied such petitions because: (1) they were inadequately justified by the applicant; and/or (2) other programs have adequately addressed upwind emission sources.

f. Are you aware of any situation since you have served at EPA under this Administration, when a utility has turned off or not fully optimized their installed controls? If so, please list and explain all situations.

I am not aware of any situation in that time frame in which a utility has violated its obligations under the Clean Air Act and regulations and permits issued thereunder by turning off or not fully optimizing their installed controls.

17. OMB has also long recognized the limitations of a formal cost-benefit analysis, especially when benefits cannot be fully monetized. OMB's 2003 Circular A-4 requires EPA and other agencies to conduct a complete regulatory analysis that "includes a discussion of non-quantified as well as quantified benefits and costs. When there are important nonmonetary values at stake, you should also identify them in your analysis so policymakers can compare them with the monetary benefits and costs."[8] In addition, OMB clarifies in Circular A-4 that all ancillary benefits should be counted in any rule analysis, directing agencies to "look beyond the direct benefits and direct costs of your rulemaking and consider any important ancillary benefits and countervailing risks. An ancillary benefit is a favorable impact of the rule that is typically unrelated or secondary to the statutory purpose of the rulemaking." OMB also states when an agency, "can estimate the monetary value of some but not all of the ancillary benefits of a regulation, but cannot assign a monetary value to the primary measure of effectiveness, you should subtract the monetary estimate of the ancillary benefits from the gross cost estimate to yield an estimated net cost."[9] Why does EPA believe it not necessary to review all the benefits – including ancillary co-benefits – in EPA's analysis (which is based only in part on the regulatory impact analysis prepared for OMB and responsive to its guidance), that is being used to make its "appropriate and necessary" determination under Section 112(n)(1)(A)? Why are those benefits required to be counted in any other benefit assessment analysis for any other regulatory action, but not proposed to be included here?

The bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. Information responsive to your questions may be found in those documents. EPA expects to receive comments on a number of related issues upon publication of the NPRM in the Federal Register, and it will respond to these comments as part of any final action.

For example, the accompanying memorandum presents a summary of costs and the target pollutant benefits that EPA views as pertinent to the appropriate and necessary finding under section 112(n)(1)(A). Target pollutant benefits consist of the quantified and unquantified benefits from reductions in hazardous air pollutants. EPA also estimated that the MATS rule would result in ancillary benefits from the concomitant reduction of non-target pollutants. These include the quantified PM2.5 co-benefits and other unquantified co-benefits that occur as a result of reductions of non-HAP emissions. However, for reasons described in the preamble and based on the specific statutory direction in 112(n)(1)(A), EPA proposes that the HAP benefits, both quantified and unquantified, are the most relevant portion of the analysis for purposes of the appropriate and necessary finding. Therefore, in evaluating the pertinent impacts of this proposed action, EPA has focused on the target pollutant impacts. EPA has

[8] 68 FR 58366
[9] 68 FR 58366

proposed to conclude that the quantifiable portion of the target HAP benefits are not even moderately commensurate with the compliance cost of the rule, as the difference between costs and HAP benefits is substantial using either discount rate.

18. In determining it was no longer "appropriate and necessary" to regulate utilities under Section 112 in EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards –

    a. Did EPA use any data beyond what was included in the 2011 MATS Regulatory Impact Analysis? If so, please describe it. If not, why not?

    EPA's proposed action utilizes information from the 2011 Regulatory Impact Analysis (RIA) as well as an updated comparison of costs and target pollutant benefits in a memorandum to the rulemaking docket. The bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. EPA expects to receive comments on a number of related issues upon publication of the NPRM in the Federal Register, and it will respond to these comments as part of any final action.

    The NPRM notes that the MATS RIA accounts for all the monetized *and* unquantified benefits of the rule, and the EPA's proposed approach to the cost-benefit analysis in the RIA does not discount the existence or importance of the unquantified benefits of reducing HAP emissions. After fully acknowledging the quantified benefits of reducing HAP emissions, the EPA proposes to conclude that substantial and important unquantified benefits of MATS are not sufficient to overcome the significant difference between the monetized benefits and costs of this rule. The EPA has provided an updated comparison of costs and target pollutant benefits in a memorandum to the rulemaking docket. The actual costs and benefits of the MATS rule may differ from the EPA's analysis. However, as explained in the accompanying memorandum, given that the CAA section 112(n)(1)(A) finding is a threshold analysis that Congress intended the Agency would complete prior to regulation, the EPA believes it is reasonable for purposes of this reconsideration to rely on the estimates projected prior to the rule's taking effect, *i.e.*, the estimates of costs and benefits calculated in the 2011 RIA. In addition, even assuming that actual costs and benefits differed from projections made in 2011, given the large difference between target HAP

benefits and estimated costs, the outcome of the Agency's proposed finding here would likely stay the same.

b. Did EPA consider updating the costs estimate to reflect the actual installation and operating costs required to meet MATS or consider accounting for costs already incurred by the utility industry? If so, why was this information not included in the proposal? If not, why not?

As noted above, EPA's proposed action utilizes information from the 2011 Regulatory Impact Analysis (RIA) as well as an updated comparison of costs and target pollutant benefits in a memorandum to the rulemaking docket. The actual costs and benefits of the MATS rule may differ from the EPA's analysis. However, as explained in the accompanying memorandum, given that the CAA section 112(n)(1)(A) finding is a threshold analysis that Congress intended the Agency would complete prior to regulation, the EPA believes it is reasonable for purposes of this reconsideration to rely on the estimates projected prior to the rule's taking effect, *i.e.*, the estimates of costs and benefits calculated in the 2011 RIA. In addition, even assuming that actual costs and benefits differed from projections made in 2011, given the large difference between target HAP benefits and estimated costs, the outcome of the Agency's proposed finding here would likely stay the same.

c. Did EPA consider updating the benefits data to include the best available science? If not, why not? If so, why was this information not included in the proposal?

As noted above, EPA's proposed action utilizes information from the 2011 Regulatory Impact Analysis (RIA) as well as an updated comparison of costs and target pollutant benefits in a memorandum to the rulemaking docket. The actual costs and benefits of the MATS rule may differ from the EPA's analysis. However, as explained in the accompanying memorandum, given that the CAA section 112(n)(1)(A) finding is a threshold analysis that Congress intended the Agency would complete prior to regulation, the EPA believes it is reasonable for purposes of this reconsideration to rely on the estimates projected prior to the rule's taking effect, *i.e.*, the estimates of costs and benefits calculated in the 2011 RIA. In addition, even assuming that actual costs and benefits differed from projections made in 2011, given the large difference between target HAP benefits and estimated costs, the outcome of the Agency's proposed finding here would likely stay the same.

19. Under the George W. Bush Administration, EPA stated that "benefits calculations relying solely on IQ decrements are likely to underestimate the benefits to cognitive functioning of reduced mercury exposures."[10] Do you agree with this statement? If so, why? If not, why not?

    As explained in detail in the signed NPRM, it is well known that certain benefits of HAP reductions are not quantifiable. We nevertheless give appropriate consideration to unquantifiable benefits in the NPRM.

20. In a recent residual risk proposal, EPA has stated "any reduction in HAP emissions would be expected to provide health benefits in the form of improved air quality and less exposure to potentially harmful chemicals."[11] Does this statement apply to reductions in HAPs for all Section 112 listed source categories, including EGUs? If not, why not? If so, why? Please list all the acid gases, heavy metals, and other hazardous air pollutants (by name) that are emitted by electric generating units that contribute to particulate matter pollution. If reducing these HAPs also reduces particulate matter, wouldn't reducing particulate matter be a direct benefit of the regulation, not a co-benefit?

    Information responsive to your questions may be found in the notice of proposed rulemaking and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits are available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. The MATS rule requirements to limit emissions of mercury and other HAP are discussed on pages 41 – 51 of the .pdf version of the NPRM currently available at the link.

[10] EPA, Regulatory Impact Analysis of the Clean Air Mercury Rule, (March 2005) https://www3.epa.gov/airtoxics/utility/ria_final.pdf.

[11] 83 FR 46262

21. In 2003, then-EPA Assistant Administrator for Air and Radiation Jeff Holmstead testified before the House Energy and Commerce Committee on the difficulty of quantifying the benefits of reducing air toxic emissions from power plants, saying: "These estimates [for Clear Skies] do not include the many additional benefits that cannot currently be monetized but are likely to be significant, such as human health benefits from reduced risk of mercury emissions, and ecological benefits from improvements in the health of our forests, lakes, and coastal waters."[12] Is this also true for MATS?

    As explained in detail in the signed NPRM, it is well known that certain benefits of HAP reductions are not quantifiable. We nevertheless give appropriate consideration to unquantifiable benefits in the NPRM.

22. EPA has tried to bridge the air toxic data gaps to better monetize benefits through various stakeholder workshops over the years. The latest workshop in 2009 concluded that monetizing all air toxic benefits is still not possible, making a cost benefit analysis "difficult" to do for any action involving hazardous air pollutants. Finding that, "[F]or many chemicals on the [Clean Air Act hazardous air pollutant] list, the information on potential health effects is so limited that quantitative benefits analysis is not feasible…This lack of information is in contrast to the criteria air pollutants for which there is extensive human exposure or epidemiological data on the health effects at ambient-exposure levels…characterizing the health effects of air toxics at ambient levels can be subject to a very high level of uncertainty; thus, using these health effects in economic benefits assessment is difficult."[13] Do you agree that monetizing all air toxic benefits is still not possible and "using these health effects in economic benefits assessment is difficult" if not impossible? If not, why not? If so, why?

    EPA continues to work to quantify and monetize key costs and benefits for its regulations. Information on economic and cost analysis for air pollution regulations, including monetization of costs and benefits, is available at: https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations. Additional information responsive to your questions may be found in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits is available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants.

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[12] Statement of EPA Assistant Administrator Jeff Holmstead, Hearing Before the U.S. House of Representatives Energy and Air Quality Subcommittee of the House Energy and Commerce Committee entitled "The Clear Skies Initiative: A Multipollutant Approach to the Clean Air Act," (July 8, 2003), https://archive.epa.gov/ocir/hearings/testimony/108_2003_2004/web/pdf/2003_0708_jh.pdf.

[13] Gwinn et al, "Meeting Report: Estimating the Benefits of Reducing Hazardous Air Pollutants—Summary of 2009 Workshop and Future Considerations," Environ Health Perspectives. 2011 Jan; 119(1): 125–130, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018491/.

23. Do you agree with the American Academy of Pediatrics, which has stated there is no safe level of mercury exposure for children in the womb? If not, why not?

It should be recognized, as a fundamental threshold matter, that under Clean Air Act section 112, EPA's general obligation when analyzing existing MACT standards with regard to the regulation of hazardous air pollutant emissions, including mercury emissions from EGUs, is, under the residual risk provision in 112(f)(2), to provide an ample margin of safety to protect public health. The D.C. Circuit Court of Appeals has held that EPA is not obligated to establish "zero-risk" standards under section 112, *NRDC v. EPA*, 824 F.2d 1146, 1152 (D.C. Cir. 1987). EPA's proposal explains why EPA believes that the existing MATS standards do provide an ample margin of safety to protect public health, *see especially* page 103 of the .pdf version available at https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants.

For information on the health effects of mercury exposures, please see EPA's website: https://www.epa.gov/mercury/health-effects-exposures-mercury.

Further information responsive to your question as to EPA's assessment of the pediatric health impacts of mercury exposure may be found in the NPRM signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. In the meantime, the signed NPRM and an accompanying factsheet and memorandum on compliance costs, hazardous air pollutant (HAP) benefits, and ancillary co-pollutant benefits is available at: https://www.epa.gov/mats/regulatory-actions-final-mercury-and-air-toxics-standards-mats-power-plants. Additional information on economic and cost analysis for air pollution regulations, including monetization of costs and benefits, is available at: https://www.epa.gov/economic-and-cost-analysis-air-pollution-regulations.

24. According to EPA's 2018 Supplemental Cost Finding proposal, EGUs emitted 29 tons of mercury annually prior to the implementation of the rule. What populations were most susceptible to mercury exposure and is mercury easily removed from the environment once it gets into the environment?

How someone's health may be affected by an exposure to mercury depends on a number of factors: the form of mercury (for example, methylmercury or elemental (metallic) mercury); the amount of mercury in the exposure; the age of the person exposed (the fetus is the most vulnerable); how long the exposure lasts; how the person is exposed – breathing, eating, skin contact, etc.; and the health of the person exposed. For more information on the health effects of mercury exposures, please see EPA's website: https://www.epa.gov/mercury/health-effects-exposures-mercury. More current information on mercury emissions can also be found in EPA's National Emissions Inventory at: https://www.epa.gov/air-emissions-inventories.

25. Are there states in which utilities may no longer seek rate recovery from public utility commissions for the capital costs and/or operating costs of air pollution control equipment for which there is not a legal requirement to operate that equipment? If so, please identify the states.

Because EPA is not the national energy regulator, it does not compile such information. I suggest seeking information from the Department of Energy, the Federal Energy Regulatory Commission, or state public utility commissions themselves. However, if this question is directed at our MATS proposal, we do not believe it will remove the legal requirement for the equipment.

26. Are there states in which public utility commission rules or practices allow ratepayers or any third parties to mount challenges to power plant company rate recovery from public utility commissions for the capital costs and/or operating costs of air pollution control equipment for which there is not a legal requirement to operate that equipment? If so, please identify the states.

Because EPA is not the national energy regulator, it does not compile such information. I suggest seeking information from the Department of Energy, the Federal Energy Regulatory Commission, or state public utility commissions themselves. However, if this question is directed at our MATS proposal, we do not believe it will remove the legal requirement for the equipment.

27. Can you identify all third parties who urged the agency, or OMB, not to propose to rescind the "appropriate and necessary" finding or the MATS rule? In particular, please identify the positions urged by the Edison Electric Institute; Utility Air Regulatory Group; the American Public Power Association; the National Rural Electric Cooperative Association; the Clean Energy Group; any electric utility company; any state or local air pollution control agency or their associations; any public health or environmental non-governmental organization. Which groups supported the proposed changes?

EPA expects that interested third parties will submit comments setting forth their position on this issue. All comments submitted to Docket No. EPA-HQ-OAR-2018-0794 will be available for public inspection and will be carefully considered by EPA in taking final action. Materials provided to OMB in the context of Executive Order 12866 meetings can be found at: https://www.reginfo.gov/public/do/eom12866SearchResults. I do not recall any of the aforementioned groups reaching out to me prior to this proposal.

Questions on the Kigali Treaty

28. I have learned that counter to your implication in our private meeting, there have in fact been interagency meetings in which Bill Wehrum and other EPA officials participated to discuss the Kigali Amendment to the Montreal Protocol. Moreover, I have also been informed that EPA officials have stated at these meetings that EPA does not wish the treaty to be submitted for ratification.

    a. Please list the dates of and attendees at each such meeting.
    b. Do you share Mr. Wehrum's opinion that the Treaty should not be submitted to the United States Senate for ratification, or authorize him to convey this view at the meetings that have occurred?

    Principal meetings on this issue occurred prior to my becoming Acting Administrator. I have not been briefed on this issue by my career staff and I am reserving judgement until that time.

    The White House is leading an interagency process to consider the implications if the U.S. decides to ratify the Kigali Amendment. If a decision were made to seek ratification, the President would send the Amendment to the Senate for advice and consent.

29. U.S. businesses across the entire HFC supply chain are transitioning away from HFCs and taking advantage of new global markets. The US industries that use or produce fluorocarbons directly employ more than 593,000 Americans with an annual payroll in excess of $34 billion, and sales of $206 billion. The overall contribution of the fluorocarbon industries network to US economic activity is more than 2.5 million jobs and goods and services valued at more than $630 billion annually. As I mentioned at the hearing - American industry, both users and producers of HFCs, strongly support the ratification of the Kigali Amendment to the Montreal Protocol because it encourages domestic manufacturing of next generation alternatives and technologies and provides businesses a predictable transition away from HFCs. Various studies clearly show that ratification of Kigali will benefit American manufacturing jobs with little to no impact to consumers and an obvious benefit to the environment.

    a. Do you support the ratification of the Kigali Amendment to the Montreal Protocol? If not, why not?

    The White House is leading an interagency process to consider the implications if the U.S. decides to ratify the Kigali Amendment. If a decision were made to seek ratification, the President would send the Amendment to the Senate for advice and consent.

b. What will you commit to do to help facilitate the transition away from HFCs toward innovative next-generation technologies?

EPA's responsibility in this area is bound by its authority to regulate under Title VI of the Clean Air Act. In those situations where it is appropriate, matters related to the transition away from HFCs will be taken into account in the development of implementing regulations.

c. EPA conducted a cost-benefit analysis of the Montreal Protocol and the HFC phasedown that I believe shows that the ratification of Kigali will be a benefit to American businesses and American consumers. This study has not been released to the public yet. Will you immediately make the results of that study public? If not, why not and when will it be public?

Any analysis of costs and benefits by EPA is still undergoing review and includes information that relates to a pending or contemplated executive action and is therefore deliberative and pre-decisional.

d. What challenges does EPA face in achieving these benefits and what will EPA, under your leadership, do to successfully overcome these challenges?

As I noted previously, the White House is leading an interagency process to consider the implications if the U.S. decides to ratify the Kigali Amendment. If a decision were made to seek ratification, the President would send the Amendment to the Senate for advice and consent. Until such time as those actions may take place, it would be premature for me to speculate about the challenges the EPA may face and how those challenges may be addressed and resolved.

More information on EPA's efforts on ozone layer protection is available at: https://www.epa.gov/ozone-layer-protection.

30. It is my understanding that EPA has prepared analysis of the consumer cost benefits of the Montreal Protocol, including projected benefits to US consumers from the implementation of the HFC phasedown consistent with the Kigali amendment to the Protocol.

a. Will you immediately make the results of that study public? If not, why not and when will the agency release this report?

The White House is leading an interagency process to consider the implications if the U.S. decides to ratify the Kigali Amendment. Any analysis of costs and benefits by EPA is still undergoing review and includes information that relates to a pending or contemplated executive action and is therefore deliberative and pre-decisional.

b. Please share with the Committee this analysis and the key findings from EPA's work.

Any analysis of costs and benefits by EPA is still undergoing review and includes information that relates to a pending or contemplated executive action and is therefore deliberative and pre-decisional. Should the analysis be finalized in connection with any future final action we will provide any decisional documents in the administrative record for those actions and can supply the final version at that time.

Questions on the Methylene Chloride Ban

31. When I raised my concerns at the hearing about EPA's failure to finalize a methylene chloride ban that sufficiently protects both consumer and commercial users against its severe risks (as your chief of staff committed to my staff would occur at the time former Administrator Pruitt first announced his plans to finalize the ban), you stated that "It is at OMB, it is ready to go as soon as the Federal Register opens. That is something that I have taken seriously, and it is something that we have spent a lot of time, I have spent a lot of personal time on that issue. And I hope we can get that out as quickly as possible."

    a. Has EPA determined that methylene chloride poses an unreasonable risk to workers?
    b. Do you agree that the majority of reported deaths due to methylene chloride exposure have occurred in a work setting, even when workers have undergone hours of training and followed all recommended precautionary measures?
    c. Do you agree that the OSHA standard for methylene chloride exposure is more than 20 years old14, and that OSHA told EPA that it does not believe the OSHA standard is protective enough given the risks to workers that were identified by EPA?
    d. Do you agree that as part of its analysis, EPA assessed whether a training program for the proper use of respirators for methylene chloride paint strippers could be effective, and concluded it would be too costly and would likely result in companies voluntarily using alternatives to methylene chloride?
    e. How long does EPA expect it will take to finalize its proposal entitled "Methylene Chloride; Commercial Paint and Coating Removal Training, Certification and Limited Access Program" once it publishes this insufficiently protective approach to addressing occupational methylene chloride exposures?
    f. How long does EPA expect it will take to finalize its consumer ban on methylene chloride?

Yes, under certain circumstances, methylene chloride not only can pose danger, but has also caused worker deaths. EPA submitted a final rule for methylene chloride paint and coating removal to OMB for interagency review on December 21, 2018, prior to the lapse in appropriations. Questions regarding the scope, implementation, and timing of

[14] https://www.regulations.gov/document?D=EPA-HQ-OPPT-2016-0231-0153

the final rule, and associated EPA actions, will depend on the outcome of the interagency review process.

Questions on PFAS

32. The Agency for Toxic Substances and Disease Registry (ATSDR) announced its draft toxicological profile for PFAS on June 21, 2018, covering a total of 14 perfluoroalkyl substances. Due to inadequate data for 10 of the compounds, ATSDR could establish Minimum Risk Levels (MRLs) for only 4 of the PFAS chemicals. These MRLs are not the same as the current EPA Lifetime Health Advisories (LHAs) for PFOA and PFOS, but the new profiles indicate potential health impacts at lower concentrations that EPA's LHAs, which are set at 70 parts per trillion (ppt). Several states have established drinking water standards substantially lower than EPA's 70 ppt LHAs for PFOS and PFOA—some in the range of the equivalent levels reflected by the ATSDR profile, or about 7 ppt for PFOS and 11 ppt for PFOA. Is EPA evaluating these state actions and the ATSDR findings and incorporating the latest science in its regulatory process?

    The EPA supports and has been engaged in the efforts of our state and federal partners, including ATSDR, to develop information related to PFAS. The EPA continues to take concrete steps, in cooperation with our federal and state partners, to address PFAS and ensure all Americans have access to clean and safe drinking water.

    The EPA is evaluating PFOA and PFOS under the regulatory determination process, which builds on the work the agency completed in the health advisories for PFOA and PFOS and is an important step in the process for establishing a National Primary Drinking Water Regulation.

    As a part of the evaluation, the EPA will continue to carefully review the draft ATSDR Toxicological Profile and will consider all newly available scientific information, including the science used to develop state standards.

33. When EPA conducted its Unregulated Contaminant Monitoring Rule (UCMR) 3 monitoring, it identified 63 drinking water systems[15] with combined PFOA and PFOS levels that exceeded EPA's health advisory levels. However, according to former EPA officials, EPA also received data related to PFAS detected at levels below EPA's health advisory level. For each category below, please provide a list of drinking water systems (including their location) whose UCMR 3 occurrence data fell into the specified range.

    a. Systems whose levels exceeded the combined PFOA and PFOS health advisory levels.
    b. Systems whose combined PFOA and PFOS levels were between 60-70 ppt.
    c. Systems whose combined PFOA and PFOS levels were between 50-60 ppt.
    d. Systems whose combined PFOA and PFOS levels were between 40-50 ppt.

[15] https://pfas-1.itrcweb.org/wp-content/uploads/2018/01/pfas_fact_sheet_regulations_1_4_18.pdf

e. Systems whose combined PFOA and PFOS levels were between 30-40 ppt.
f. Systems whose combined PFOA and PFOS levels were between 20-30 ppt.

To provide Americans, including the most sensitive populations, with a margin of protection from a lifetime of exposure to PFOA and PFOS from drinking water, the EPA has established the health advisory levels at 70 parts per trillion. EPA fact sheets state that when both PFOA and PFOS are found in drinking water, the combined concentrations of PFOA and PFOS should be compared with the 70 parts per trillion health advisory level. This health advisory level offers a margin of protection for all Americans throughout their life from adverse health effects resulting from exposure to PFOA and PFOS in drinking water.

The EPA worked with states and public water systems (PWSs) to characterize the occurrence of six PFAS in the nation's drinking water served by PWSs by including six PFAS in the third Unregulated Contaminant Monitoring Rule (UCMR3) under the Safe Drinking Water Act (SDWA). From 2013-2015, at least one sample of drinking water was collected and analyzed for six PFAS in nearly 5,000 PWSs across the nation, accounting for approximately 80 percent of the U.S. population served by PWSs (approximately 250 million people).

Under the UCMR3, the EPA found that 1.3 percent of the participating PWSs (63 out of 4,920 PWSs reporting) had at least one sample that measured PFOA, PFOS, or a combined value for PFOA and PFOS at concentrations greater than 70 ppt. The EPA found 4.0 percent of PWSs (198 out of 4,920 systems) reported results for which one or more of the six PFAS (PFOA, PFOS, perfluorononanoic acid (PFNA), perfluorohexane sulfonic acid (PFHxS), (perfluoroheptanoic acid) PFHpA, or perfluorobutane sulfonate (PFBS)) was measured at or above the minimum reporting limit (MRL) during one or more sampling events at one or more sampling locations.

The final UCMR3 data set is publicly available on the UCMR occurrence data web page (https://www.epa.gov/dwucmr/occurrence-data-unregulated-contaminant-monitoring-rule) as are the instructions for importing the UCMR3 results (https://www.epa.gov/sites/production/files/2016-08/documents/instructions-importing-viewing-ucmr3-results.pdf) to filter, analyze, or view the analytical data under various scenarios, including the specified ranges in the question. However, please note the UCMR3 MRL for PFOA was 20 ppt and for PFOS was 40 ppt. The EPA has no numeric results below the MRLs.

Questions on Past Commitments

34. In Chad McIntosh's September 2, 2018 letter to me, he made several commitments. For each of the following commitments drawn from that letter, please indicate whether the commitment has been met. If it has not been met, why not, and by what date will it be met?

a. "If confirmed, I will commit to working directly with the National Tribal Caucus (NTC), a national body of tribal advisors who focus primarily on identifying and addressing national, cross-media and emerging tribal environmental issues. I will commit to meeting with the NTC on at least an annual basis. In practice, discussions will likely occur on a monthly basis. I will commit to meeting with the entire National Tribal Operations Committee on an annual basis."
b. "In addition, I commit to meeting with each of the Regional Tribal Operations Committee (RTOC) at least on an annual basis with my EPA regional counterparts, and commit to participating in key tribal meetings such as the National Congress of American Indians Annual Convention"
c. "Should I be confirmed, I will enhance the strength of Tribal representation within EPA by hiring a member of a federally recognized tribe to be the Director of the American Indian Environmental Office within the Office of International and Tribal Affairs."

Assistant Administrator McIntosh's nomination was confirmed by the United States Senate on January 3, 2019. He officially began as Assistant Administrator on January 18, 2019.

Prior to his confirmation by the US Senate, in his capacity as Senior Counsel to the Administrator, Chad McIntosh attended meetings with various tribal leaders in order to better understand EPA's federal responsibilities and the interests and concerns of the tribes. Last fall, Mr. McIntosh participated in meetings with the Governor of the Pueblo of Santa Clara and Tribal Council representatives of the Nez Perce Tribe, as well as tribal organizations and associations, including the Alaska Native Village Cooperation Association. He also attended the EPA Region 9 Regional Tribal Operations Committee (RTOC) meetings, with EPA Region 9 Regional Administrator, Mike Stoker, in late October.

In his capacity as the Assistant Administrator for International and Tribal Affairs here at EPA, Mr. McIntosh is the Agency-lead for the National Tribal Operations Committee (NTOC) meeting, consisting of National Tribal Caucus representatives and EPA Senior Leadership. The NTOC meeting is being scheduled in Washington, D.C. in February, depending on the current government shutdown. I plan to co-chair the NTOC meeting when it is scheduled; Chad McIntosh and other Assistant Administrators and Regional Administrators will also attend.

Every year, Mr. McIntosh will meet with the Regional Tribal Operations Committees in each of the 10 EPA regions. The Regional Administrators and Mr. McIntosh take these meetings very seriously as a way to carry out EPA's responsibilities with Tribes and to consult and communicate with the Tribes. In addition, he will attend key Tribal meetings and directly visit Tribes throughout the year.

The role of EPA's American Indian Environmental Office is very important. He is working with EPA's human resources office and with his colleagues here at the Agency

to identify and appoint a member of a federally recognized tribe to be Director of the American Indian Environmental Office as soon as possible.

Now that he is confirmed as his letter noted and which is key to fulfilling these commitments, I know that Mr. McIntosh will do everything in his power to meet his commitments throughout his appointment in an ongoing and transparent fashion.

35. In your January, 2019 letter to me, you made several commitments. For each of the following commitments drawn from that letter, please indicate whether the commitment has been met. If it has not been met, why not, and by what date will it be met?

    a. "EPA will withdraw its OMB submission to propose revisions to these [worker protection] rules and will not make any changes to the designated representative and minimum age provisions."

    The Agency has been developing proposals concerning the Agricultural Worker Protection Standard (WPS) rule, including changes to the designated representative and minimum age provisions, and application exclusion zone (AEZ) provisions. The Agency has also been developing changes to the Certification of Pesticide Applicators (CPA) rule. Although the subject matter associated with these potential changes has been subject to wide ranging public stakeholder meetings and public comments, EPA will withdraw its OMB submission to propose revisions to these rules and will not make any changes to the designated representative and minimum age provisions. It may consider proposing revisions to the AEZ provision in the WPS rule, but to no other substantive provision in the WPS rule. If such a proposal is issued, it would be subject to a public notice and comment period of no less than 90 days. I will follow through on the commitments in my January 2019 letter to you.

    b. The Agency will promptly submit the methodology for deciding how to collect and evaluate scientific research related to a chemical's safety that was recently developed by the Office of Chemical Safety and Pollution Prevention (OCSPP) to the National Academy of Sciences (NAS) for peer review and feedback.

    Because it is important that all of the Agency's chemical safety efforts comply with the requirements in the law as well as the regulations implementing the law regarding the Agency's use of the best available science, the EPA will, promptly submit the methodology for deciding how to collect and evaluate scientific research related to a chemical's safety that was recently developed by the Office of Chemical Safety and Pollution Prevention (OCSPP) to the National Academy of Sciences (NAS) for peer review and feedback and, at the same time EPA will use the Frank R. Lautenberg Chemical Safety for the 21st Century Act Section 26(o) mandated advisory committee, a FACA committee, whose purpose is to provide independent

advice and expert consultation with respect to the scientific and technical aspects of issues related to TSCA, to provide its independent advice on the methods used by OCSPP to collect and evaluate scientific research in the first ten risk evaluations. I also commit to make public the review, feedback and any recommendations received from both the NAS and the advisory committee within 30 days of their receipt. Finally, EPA will incorporate feedback and recommendations as appropriate. I will follow through on the commitments in my January 2019 letter to you.

Questions on the Shutdown

36. Please describe how the on-going government shutdown is affecting EPA's efforts to –

    a. Provide guidance to state drinking water programs; and
    b. Coordinate with states to keep toxic chemicals out of drinking water and respond to contamination events.

EPA used carryover funding to keep the Agency open through December 28—one week beyond the lapse in appropriations, which occurred on December 21—and of course the lapse has now ended. During the shutdown, EPA had staff available to work on excepted activities such as providing emergency guidance to states and water systems when significant risk to human health occurs, conducting emergency response activities for contaminated drinking water, and providing assistance as necessary for other situations posing a danger to the public. For example, the State of New Jersey recently requested EPA staff to conduct critical work related to lead exposure in Newark. However, the EPA was not able to provide routine, non-emergency guidance or technical support to state drinking water programs during the government shutdown. Further information on EPA's shutdown procedures and activities that occurred during the lapse in funding can be found in the *U.S. EPA Contingency Plan in the Event of a Government Shutdown* (https://www.epa.gov/2018lapse/us-epa-contingency-plan-event-government-shutdown).

37. Please provide an update on when you expect the following EPA regulatory actions to be completed assuming the government shut-down ends by a) February 15 2019 or b) April 1, 2019.

    - National Primary Drinking Water Regulations for Lead and Copper (revisions to the so-called Lead and Copper Rule) – proposed rule expected in February 2019 according to the Fall 2018 Unified Agenda.
    - National Primary Drinking Water Regulations: Regulation of Perchlorate (pursuant to a consent decree entered by the U.S. District Court for the Southern District of New York, EPA was supposed to propose a Maximum Contaminant Level Goal (MCLG) for perchlorate in drinking water no later than October 31, 2018 and finalize the MCLG no later than December 19, 2019).

- Use of Lead Free Pipes, Fittings, Fixtures, Solder and Flux for Drinking Water (EPA proposed regulations to implement section 1417 of the Safe Drinking Water Act on January 17, 2017 with a stated goal in the Unified Agenda of finalizing that rule by June 2019).

The EPA is working aggressively to develop proposed major revisions to the Lead and Copper Rule, which was last significantly updated in 1991. It is a complicated rulemaking, but EPA anticipates sending proposed revisions to OMB this spring. The same rulemaking team is working on the Lead Free Rule which the EPA plans to finalize in 2019. The EPA intends to maintain these rulemaking schedules; however, the agency will continue to evaluate the schedules in light of the government shutdown and make necessary adjustments. The consent decree deadline for the perchlorate rulemaking was extended to April 30, 2019, to reflect the additional time required to address extensive peer reviewer recommendations to improve the scientific tools the agency is using to inform the proposed rule which was not anticipated at the time the decree was entered. The consent decree includes a provision that automatically extends deadlines in the event of certain circumstances outside the reasonable control of the EPA, such as lapses in government funding.

38. EPW staff contacted your office via email on January 9, 2019 requesting the names of the 6 EPA staff deemed "*necessary to perform activities expressly authorized by law*" and the 12 EPA staff deemed "*necessary to the discharge of the President's constitutional duties and powers*" in EPA's December 31, 2018 shutdown contingency plan.
On January 10, 2019 a member of your staff replied via email, writing "*It has been difficult with limited resources to pinpoint. Still working on this.*" To date, no additional response failed to that email request has been received.

Also on January 10, 2019, members of the EPW committee sent you a letter requesting information about any EPA staff that had been or was currently engaged in work related to your nomination. To date, no response to that letter has been received.
On the evening of January 14, 2019, reports surfaced that you had updated EPA's contingency plan to increase the number of EPA staff deemed "*necessary to the discharge of the President's constitutional duties and powers*" from 12 to 28, and increased the number of EPA staff deemed "*necessary to perform activities necessarily implied by law*" from zero (0) to 12.

During your confirmation hearing you also admitted in an exchange with Senator Van Hollen that certain EPA staff were brought back to work from furlough during the government shutdown to prepare you for this hearing;

> *Senator Van Hollen. And that there are approximately 891 who are on the job, is that approximately right?*
>
> *Mr. Wheeler. That sounds pretty exact, 891. It varies from day to day. We bring back people to work on specific issues.*

Senator Van Hollen. Right. Including some that you brought on to prepare for this hearing, is that right?

Mr. Wheeler. Yes, Senator.

a. Please list the names and official titles of the 6 EPA staff deemed "necessary to perform activities expressly authorized by law" in EPA's December 31, 2018 shutdown contingency plan.
b. Please list the names and official titles of the 12 EPA staff deemed "necessary to the discharge of the President's constitutional duties and powers" in EPA's December 31, 2018 shutdown contingency plan.
c. Please list the names and official titles of 28 EPA staff deemed "necessary to the discharge of the President's constitutional duties and powers" in EPA's January 14, 2019 contingency shutdown plan.
d. Please list the names and official titles of the 12 EPA staff deemed "necessary to perform activities necessarily implied by law" in EPA's January 14, 2019 contingency shutdown plan.
e. For each EPA staff member described in questions (a) through (d), please provide their work schedules and an accounting of each hour worked by each of those staff, as applicable, on any work activity related to your nomination or the confirmation process, and a description of the task or work function performed during that time.
f. Please submit all letters, emails, memoranda, or other written or electronic correspondence prepared, transmitted, or received by each EPA staff member described in questions (a) through (d) that relates to your nomination or confirmation process.
g. At any time since December 29, 2018, has any EPA staff member not encapsulated by questions (a) through (d) engaged in work activities related to your nomination or the confirmation process?
h. If your answer question (g) is yes, please list the names and official titles of those individuals.
i. If your answer to question (g) is yes, please submit all letters, emails, memoranda, or other written or electronic correspondence prepared, transmitted, or received by those EPA staff member(s) that relates to your nomination or the confirmation process.
j. If your answer to question (g) is yes, please submit work schedules and an accounting for hours worked by each of those EPA staff, as applicable, on any work activity related to your nomination or the confirmation process, including a description of the task or work function performed during that time.
k. Please list the names and official titles of the 12 EPA staff deemed "necessary to perform activities implied by law" that were added to EPA's contingency plan for the first time on January 14, 2019? What change in law or circumstance occurred between December 31, 2018 and January 14, 2019 lead you to add those 12 EPA staff after you originally estimated that no EPA staff would be necessary to perform activities implied by law?

l. What work activities are the 12 EPA staff deemed "necessary to perform activities implied by law" by the January 14, 2019 EPA shutdown contingency plan engaged in? Are any of those 12 EPA staff engaged in work activities or functions related to your nomination or the confirmation process?
m. Were any of the additional EPA staff added to the December 29, 2018 EPA shutdown contingency plan by the January 14, 2019 EPA shutdown contingency plan engaged in work activities or functions related to your nomination or confirmation process prior to January 14, 2019?
n. If your answer to question (m) is yes, please list the names and official titles of any such EPA staff member or members.

OMB Circular A-11, Section 124.2 defines 5 categories of employees that must be accounted for in the Contingency Plan:

- **Their compensation is financed by a resource other than annual appropriation;**
- **They are necessary to perform activities expressly authorized by law;**
- **They are necessary to perform activities necessarily implied by law;**
- **They are necessary to the discharge of the President's constitutional duties and powers;**
- **They are necessary to protect life and property.**

Attached, please find a list of excepted employees. All excepted employees were instructed to only work the number of hours that were needed to complete their excepted duties. The number of excepted employees also fluctuated depending on the needs of the organization. While the majority of EPA's excepted employees were excepted as necessary to protect life and property, we had personnel numbers under 3 other categories:

- **The Agency's Presidentially appointed/senate confirmed individuals are necessary to perform activities expressly authorized by law.**
- **In the January 14th Contingency Plan, 12 individuals were deemed necessary to perform activities necessarily implied by law. These employees, from the Office of the Chief Financial Officer, were added to process payments for services rendered for excepted activities where there is an imminent threat to the safety of human life and property and funds are available.**
- **Individuals working on the Acting Administrator's hearing preparation were identified as necessary to the discharge of the President's Constitutional duties and powers. This number increased between the December 31st and January 14th Contingency Plans according to the work needed to directly support the Hearing preparation activities.**

39. Have any EPA contractors, sub-contractors, or independent contractors performed work activities or functions related to your nomination or the confirmation process since December 29, 2018? If so, please list the names and official titles of those individuals.

No.

40. How many total hours have been spent by you and EPA staff discussing, researching or otherwise preparing for your nomination and the confirmation process, including your confirmation hearing testimony and responding to questions for the record?

It is difficult to estimate hours by me or EPA staff discussing, researching, or otherwise preparing for the nomination hearing. However, I can advise you that I met with each program office once or twice to discuss a variety topics and programs they suggested to highlight and specific questions I had within the work of each program office. I followed those individual meetings with a meeting with all offices to ensure that I had a comprehensive review of our activities and programs to be able to fully answer Congressional questions. I do not believe we are able to assign a specific number of hours to the process for all individuals involved. However, I do hope this description of our general preparation will be helpful to you.

41. In 2017 EPA conducted roughly 12,000 inspections to make sure that air, water and toxic waste rules were being complied with. That's more than 230 each week. How many inspections has EPA conducted in the approximately three weeks since December 29, 2018?

EPA did not conduct any routine, planned civil enforcement inspections since December 29, 2018, until the agency reopened after January 25, 2019. Criminal investigations continued, including laboratory support for those investigations. Emergency response personnel continued to respond as appropriate to accidental releases. Superfund personnel continued to do work, including soil, air and water sampling, at sites that may present an imminent threat to the safety of human life or to the protection of property. In addition, this question assumes that inspections are conducted evenly throughout the year. In actuality, the majority of inspections occur during the summer and warmer months.

a. Has the ability of EPA's pollution inspectors to monitor air emissions been impacted or diminished in any way by the federal government shutdown, yes or no?

Entities regulated under the Clean Air Act remain subject to requirements to monitor, record, and report air emissions in accordance with federal and state regulations and permits.

b. Has EPA's ability to monitor and test for water contamination been impacted or diminished in any way by the federal government shutdown, yes or no? If yes, please describe the impact of halted inspections during the shutdown on human health and the environment.

Entities regulated under the Clean Water Act remain subject to requirements to test and monitor for water contamination in accordance with their permits. NPDES permit holders should be continuing to submit discharge monitoring reports to either state systems or EPA's data system (ICIS).

Reviewing those monitoring results was not considered an excepted activity under EPA's lapse plan, so staff did not review monitoring and test results during that time.

Now that the government has reopened, EPA plans to update ICIS with submissions that were made during the shutdown.

42. I recently learned that samples of GenX, an unregulated, PFOA-like contaminant used to make nonstick cookware and other products, are sitting in refrigerators near the Lower Cape Fear River in Fayetteville, North Carolina because EPA's lab in Athens, GA has been shut down.

a. Please confirm whether this is true.

It is our understanding, during the shutdown, that North Carolina Department of Environmental Quality (NCDEQ) held approximately seven samples/week in NCDEQ's Regional Office in Fayetteville. We also understand the NCDEQ is explored options for alternative analysis of the samples. Region 4 intends to promptly determine the number of remaining samples needing analysis and provide support to NCDEQ now that the Agency has returned to work.

b. If so, please provide a list of similar situations where EPA's ability to monitor and test for water contamination has been affected by the government shutdown.

As noted in response to question 41, where PFAS are subject to permit limitations, monitoring data should continue to be collected and reported by the permit holder. In addition, all Chemours facilities in North Carolina, West Virginia and New Jersey are subject to a TSCA section 5(e) order that requires monitoring of PFAS releases. Information on any activities undertaken in support of PFAS related enforcement investigations is confidential. However, except in cases involving imminent threats to the safety of human life or to the protection of property EPA enforcement investigations were suspended during the shutdown.

EPA/ORD is also providing technical support to several other states in addition to North Carolina relating to possible PFAS water contamination. These states include New Hampshire, New Jersey, West Virginia, New York, Michigan, and Minnesota. The government shutdown impacted EPA's ability to provide the requested technical support to these states as well, including delays in analyses and reporting of PFAS in environmental media and in the development of additional study plans for future analyses of PFAS.

43. I recently learned that EPA has had to stop sampling air emissions in Louisiana for chloroprene.

    a. Please confirm whether this is true.
    b. If so, please provide a list of similar situations where the ability of pollution inspectors to monitor air emissions been impacted or diminished due to the government shutdown.

The Denka community air monitoring for chloroprene at six locations in LaPlace, Louisiana is continuing as part of EPA's activities to protect public health. News outlets incorrectly reported that EPA air monitoring had ceased during the shutdown and EPA reached out to the reporter with correct information on January 2 and 3, 2019, respectively. EPA also notified the state of Louisiana, citizen's science advocate Wilma Subra, and Louisiana Environmental Action Network (LEAN) President Marylee Orr of the reporting error. EPA posted the latest set of quality assured data from November on its website (https://www.epa.gov/la/laplace-st-john-baptist-parish-louisiana) on December 26, 2018.

Denka is the only facility with chloroprene emissions so there are no other similar situations.

44. I have heard that EPA was forced to cancel a public hearing on cleanup proposals for the former West Calumet Housing Complex in East Chicago, Indiana.

    a. Please confirm whether this is true.

EPA proposed an Amendment to Record of Decision for the residential area (Zone 1) for the USS Lead facility in East Chicago, Indiana on November 7, 2018. EPA held a public hearing on November 29, 2018 in East Chicago, IN to provide opportunity for input on the proposed remedy for Zone 3 of the USS Lead Superfund site. Members of the East Chicago community requested a second opportunity to provide public comment prior to the January 14, 2019 public comment deadline. EPA granted this request and

scheduled a second public hearing for January 10, 2019. This hearing was postponed due to the partial federal government shutdown.

b. EPA's Office of Land and Emergency Management, which oversees cleanup of Toxic Superfund sites, is currently down from 468 staffers to 3. Has Superfund site monitoring or oversight been impacted or diminished in any way during the government shutdown as compared to the same time period last year? If so, please quantify all such impacts.

The number of employees that were excepted working nationwide on Superfund issues was dynamic and varies by region since the agency directs work to meet specific needs as allowed by law. EPA Headquarters and Regional excepted staff in the Superfund Program continue to respond at sites or incidents where there was an imminent threat to the safety of human life or to the protection of property. Ongoing work at Superfund sites also continued without EPA involvement up to the point that additional EPA direction or funding is needed. Now that the government has reopened, cleanup activities requiring new funding will restart and sites where cleanup activities had been stopped or shut down are able to commence.

45. Have you or any member of EPA staff directed EPA's Office of General Counsel (OGC) to engage in any work since December 29, 2018? Please provide this Committee with a comprehensive list of the types and scope of work performed by OGC staff since December 29, 2018, noting specifically any task that relates to (i) your nomination or confirmation hearing; (ii) pending or ongoing regulatory matters; and (iii) enforcement actions or consent decrees.

The Office of General Counsel (OGC) worked on excepted activities since December 29, 2018 providing significant legal advice on permissible activity during the shutdown. OGC appropriations law experts responded to questions from numerous EPA offices regarding whether certain agency activities could continue during the lapse in appropriations and have engaged regularly with OMB counsel to ensure excepted functions comport with legal requirements. In consultation with the Department of Justice (DOJ), OGC sought to extend court filing deadlines and court-ordered deadlines to take regulatory actions. In instances where an extension was not granted, the Agency worked with DOJ to draft required filings and continued work on pending regulatory actions to meet court-ordered deadlines. OGC also provided legal review and counsel connected to preparing for the confirmation hearing and responding to post-hearing Questions for the Record.

46. On December 28, 2019, EPA tweeted: "Due to a lapse in appropriations, EPA websites and social media will not be regularly updated. . . . In the event of an environmental emergency threatening the safety of human life or to protect certain property, epa.gov will be updated with appropriate information." Aside from a post on January 10, 2019 announcing an enforcement settlement with Fiat Chrysler, EPA's social media accounts have been silent since EPA closed on December 29, 2018. However, on the day of your confirmation hearing, January 16, 2019, EPA's Twitter feed began posting messages promoting your nomination, including encouraging the public to watch your hearing, quoting statistics from your testimony, and posting an op-ed from Chairman Barrasso praising your nomination. On that same day, EPA also issued press releases to reporters with Chairman Barrasso's op-ed and your written testimony.

    a. Have you or any member of EPA staff directed EPA's Office of Public Affairs (OPA) to engage in any work since December 29, 2018?

    A portion of the staff within the EPA's Office of Public Affairs engaged in work during the shutdown. This work included preparing the Acting Administrator for his confirmation hearing, participating in preparatory briefings, drafting briefing documents, coordinating a comprehensive list of Agency accomplishments, as well as preparing the Acting Administrator's opening statement for the confirmation hearing. In addition, OPA staff worked on the communications materials for the Fiat Chrysler enforcement settlement announcement with the Department of Justice, in order to comply with a court order. Other activities included responding incoming press inquiries about Superfund and Emergency Removal sites that fall under the environmental emergency threatening the safety of human life or property category. Finally, OPA assisted the Acting Administrator in tweeting condolences to the family of former EPA Administrator Doug Costle, on his passing.

    b. Do you consider your nomination or confirmation to constitute an "environmental emergency threatening the safety of human life" or property? If so, do you believe your nomination and confirmation warranted requiring furloughed OPA staff to draft and post on social media accounts?

    Work associated with my nomination and confirmation is pursuant to the President's constitutional appointment power, and necessary to allow the Senate to fulfill its constitutional role of advice and consent on the President's nominees. All EPA staff working on the nomination hearing were acting in response to those authorities. This work constitutes an excepted activity that occurred during the lapse in appropriations for the following reasons. First, it falls under the President's constitutional authority under the Appointments Clause and is necessary for the President's discharge of that authority. And, second, as the legislative branch has enacted appropriations for FY 2019 and is not subject to the lapse in the appropriations, my participation in the scheduled hearing was necessary for

the Congress's funded function to be effective (and my absence from my own confirmation hearing would significantly damage the Committee's confirmation hearing), and was therefore necessarily implied to continue during EPA's lapse in appropriations. This is consistent with the December 13, 1995 Office of Legal Counsel decision, *Effect of Appropriations for Other Agencies and Branches on the Authority to Continue Department of Justice Functions During the Lapse in the Department's Appropriations.* The OMB General Counsel concurred with EPA that I could prepare for and participate in his confirmation hearing and receive support from EPA staff as necessary to prepare for and participate in the hearing.

c. Please provide this Committee with a comprehensive list of the types and scope of work performed by OPA staff since December 29, 2018, noting specifically any task that relates to (i) your nomination or confirmation hearing; (ii) pending or ongoing regulatory matters; and (iii) enforcement actions or consent decrees.

A portion of the staff within the EPA's Office of Public Affairs engaged in work during the shutdown. This work has included OPA staff worked on preparing the Acting Administrator for his confirmation hearing, participating in preparatory briefings, drafting briefing documents, coordinating a comprehensive list of Agency accomplishments, as well as preparing the Acting Administrator's opening statement for the confirmation hearing. In addition, OPA staff worked on the communications materials for the Fiat Chrysler enforcement settlement announcement with the Department of Justice, in order to comply with a court order. Other activities included responding incoming press inquiries about Superfund and Emergency Removal sites that fall under the environmental emergency threatening the safety of human life or property category. Finally, OPA assisted the Acting Administrator in tweeting condolences to the family of former EPA Administrator Doug Costle, on his passing.

47. Tens of thousands of EPA staff and contractors were furloughed after the federal government was shut down and others have been asked to work for little or no pay.

I sympathize with those impacted by the shutdown. I remember experiencing a shutdown as a career EPA employee in the 1990s. As a general matter, the Privacy Act of 1974 limits the types of information about individuals that federal agencies can collect and how that information can be maintained. EPA has not collected the information referenced in this question, as that information has no connection with our specific statutory mission, and my understanding is that these types of records would not be excepted from the Privacy Act in any event.

a. How many EPA staff or contractors have missed or made late rent or mortgage payments, or are facing eviction or foreclosure?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

b. How many EPA staff or contractors have missed or made late student loan payments during the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

c. How many EPA staff or contractors have missed payments on auto loans or leases during the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

d. How many EPA staff or contractors have missed credit card payments, or incurred credit card interest as a result of their inability to make those payments?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

e. How many EPA staff or contractors have been unable to pay for child care during the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

f. How many EPA staff or contractors have been unable to pay medical expenses for themselves or their families during the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

g. How many EPA staff or contractors have filed for unemployment benefits?

The EPA has posted guidance generated from the Office of Personnel Management to assist its employees with any financial challenges they are facing during the shutdown. Currently, a total of 1,645 EPA employees have applied for unemployment benefits as of January 22, 2019. We do not have any information on the nonfederal workforce. The EPA does not have any way to track any other specific information regarding EPA employees or contractors' financial hardships during this time period.

h. How many EPA staff or contractors have attempted to get part-time or temporary jobs during the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

i. How many EPA staff or contractors have had their credit scores impacted by the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

j. How many EPA staff or contractors have applied for private loans to make ends meet during the shutdown? How many were rejected?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

k. How many EPA staff or contractors have been forced to spend money from their savings accounts, retirement accounts, 401ks, pension funds, or children's 529 college funds as a result of the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

l. How many EPA staff or contractors have been forced to secure, or attempt to secure private loans or additional lines of credit as a result of the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

m. How many EPA staff or contractors have been forced to pawn or sell personal effects or real property as a result of the shutdown?

It is inappropriate for the EPA to collect, maintain, or disseminate such personal information for any of its employees or contractors.

48. It is my understanding that the EPA-managed projects listed below have stopped due to the shutdown.

a. Please confirm whether that is true for each project.

No emergency responses were halted during the shutdown.

b. In addition, please supplement this list with additional similar projects around the country that are halted because of the shutdown.

   i. Camp Fire, Paradise, CA (household waste cleanup)

      The activities associated with the cleanup of household waste resulting from the Camp Fire continued during the shutdown.

   ii. Whiting Metals, Whiting, Indiana (cited for harmful levels of airborne lead)

      Air Monitoring via EPA's XACT monitor continued during the shutdown at the Whiting Metals site in Whiting, IN with IDEM, the state environmental agency, conducting some routine maintenance on the equipment. IDEM continues to conduct filter-based monitoring on site, collecting a sample every third day.

   iii. SH Bell, East Liverpool, Ohio (fence line monitoring, cited for airborne manganese)

      Although US EPA oversees the ambient air monitoring performed at SH Bell, East Liverpool, OH, the operation and maintenance is conducted by the company and is required to continue through an enforceable document. SH Bell East Liverpool is required by its consent decree with the US Department of Justice and US EPA to perform monitoring. The obligation for the facility to continue monitoring was not impacted by the temporary interruption of EPA's oversight during the partial government shutdown.

   iv. SH Bell, Chicago, Illinois (fence line monitoring, cited for airborne manganese)

      Although US EPA oversees the ambient air monitoring performed at SH Bell, Chicago, IL, the operation and maintenance is conducted by the company and is required to continue through an enforceable document. SH Bell Chicago is required to monitor by a Clean Air Act Section 114 Information Request that was issued by US EPA. The obligation for the facility to continue monitoring was not impacted by the temporary interruption of EPA's oversight during the partial government shutdown.

   v. Watco, Chicago, Illinois (fence line monitoring, cited for airborne manganese)

      Although US EPA oversees the ambient air monitoring performed at Watco, Chicago, IL, the operation and maintenance is conducted by the company and is required to continue through an enforceable

document. Watco is required to monitor by a Clean Air Act Section 114 Information Request that was issued by US EPA. The obligation for the facility to continue monitoring was not impacted by the temporary interruption of EPA's oversight during the partial government shutdown.

vi. Sterigenics, Willowbrook, Illinois (ethylene oxide)

EPA Air Monitoring sample collection continued during the partial government shutdown. The Office of Air Quality Planning and Standards has been analyzing the data.

vii. CII Rain Carbon, Robinson, Illinois (cited for airborne particulate matter)

Although US EPA reviews the ambient air monitoring performed at CII Carbon, Robinson, IL, the operation and maintenance is conducted by the company and is required to continue through an enforceable document. CII Carbon is required to monitor by a Clean Air Act Section 114 Information Request that was issued by US EPA. The obligation for the facility to continue monitoring not impacted by the temporary interruption of EPA's oversight during the partial government shutdown.

viii. NASCO, Chicago, Illinois (awaiting results of metal and particulate matter monitoring

Although US EPA reviews the ambient air monitoring performed at NASCO, Chicago, IL, the operation and maintenance is conducted by the company and is required to continue through an enforceable document. NASCO is required to monitor by a Clean Air Act Section 114 Information Request that was issued by US EPA. The obligation for the facility to continue monitoring was not impacted by the temporary interruption of EPA's oversight during the partial government shutdown.

ix. General Iron, Chicago, Illinois (cited for Volatile Organic Compounds)

There is no pending testing to be performed at General Iron.

x. USS Lead, East Chicago, Illinois (superfund emergency removal for lead, relocation of residents, soil removal)

The USS Lead cleanup did not stop work due to the shutdown. The residential yard cleanups were suspended prior to the shutdown due to the winter weather. It is anticipated that cleanup will start again in the spring as previously planned.

xi. St. Regis Paper Co., Cass Lake, Minnesota (clean-up of dioxin, pentachlorophenol, PAHs)

The remedial site does not have any active cleanup occurring at this time. The shutdown did suspend progress on finalizing a proposed cleanup plan for public comment.

xii. Lukenheimer Foundry, Cincinnati Ohio (clean-up of heavy metals, corrosives, ignitable wastes)

This removal action was suspended during the shutdown.

xiii. Graveyard Auto, Clarksville, Indiana (clean-up of leaking drums)

EPA has secured drummed waste onsite in a Conex box at the site. The remaining site activities, including waste disposal and soil excavation, are on hold pending action memo approval, which was suspended during to the shutdown.

xiv. C&H Mineral, Hubbel, MI (clean-up delayed of arsenic, lead)

This time-critical removal action did not stop due to the shutdown. The site is located in Upper Peninsula of Michigan, and construction was suspended due to the weather. It is scheduled to begin in the spring or as soon as weather condition permit construction.

49. EPA's Safe Drinking Water Information System (SDWIS) identifies which public water systems are in violation of drinking water standards and provides information on the severity of each violation. Unfortunately, a recent assessment of SDWIS drinking water reports indicates a major drop in enforcement actions. It appears that as a result of the government shutdown, EPA did not make its quarterly Dec 31, 2018 update to SDWIS. This means that communities will not have the most up-to-date information on the quality of their drinking water.

    a. Please confirm whether it is true that EPA is unable to update SDWIS because of the government shutdown.
    b. If you answered the first question in the affirmative, please explain the rationale behind your determination to allocate resources away from updating drinking water contamination data and to your confirmation hearing preparations.

The EPA did not complete its quarterly update of SDWIS before December 31, 2018 and will perform the update now that when Congress has provided appropriations for the agency. The data entered in SDWIS is provided by the communities that collected the data, meaning they already have access to their own drinking water quality

information. SDWIS contains information about public water systems and their violations of the EPA's drinking water regulations, as reported to the EPA by the states. The state agency with primary enforcement responsibility has access to the compliance data and is responsible for enforcing any public notification requirements to ensure that water systems provide safe water to their customers. Updating SDWIS, a federal database, does not satisfy the requirements of an excepted activity under the Anti-Deficiency Act, therefore EPA could not perform updates during the government shutdown.

Questions on Congressional Correspondence

50. For approximately the past year and a half, EPA has consistently provided documents I have requested in oversight letters at the same time or earlier than the same materials were being provided to Freedom of Information Act (FOIA) requestors or House Committee Chairs. Will you commit to continuing this practice of providing me with responsive materials at the same time they are provided to House Committee Chairs and FOIA requestors, or sooner? If not, please explain why not.

    Yes.

51. Since you took the helm at EPA as Acting Administrator on July 6, 2018, I and members of this Committee have sent you many letters containing document requests that remain unanswered. A number of letters that were sent to your predecessor also lack complete responses. By what specific date should we expect to receive EPA's complete response to each of the following letters?

    a. April 4, 2017 – letter on political appointees' obstruction of career staff's estimates related to the implementation of the HONEST Act

        EPA provided a response on August 23, 2017.

    b. April 6, 2017 and April 14, 2017 – letters on EPA's withdrawal of an Information Collection Request sent to the oil and gas industry

        EPA provided a response on May 31, 2017.

    c. April 7, 2017 – letter on EPA's plans to rescind the Clean Power Plan

        EPA provided a response on May 9, 2017.

    d. August 31, 2017 – letter on secrecy at EPA

        We look forward to continuing to work with your staff to provide a response.

e. October 25, 2017 – letter detailing concerns about the lead and copper rule

EPA provided a response on January 29, 2018.

f. October 26, 2017 – letter on EPA's decision to repeal the Clean Power Plan

EPA provided a response on November 28, 2017.

g. December 13, 2017 – letter on EPA's Sue and Settle Directive

EPA provided a response on January 30, 2018.

h. January 9, 2018 – letter on Mr. Pruitt's appointment of two scientists to serve on EPA's Federal Advisory Committees who have financial conflicts of interest

We look forward to continuing to work with your staff to provide a response.

i. January 18, 2018 – letter on a range of topics, including TSCA, climate change, and fuel efficiency standards

EPA provided a response on May 10, 2018.

j. January 19, 2018 – letter on Mr. Pruitt's meetings with industry

EPA provided a response on August 21, 2018.

k. January 19, 2018 – letter on transparency, enforcement, and various other concerns

EPA provided a response on August 2, 2018.

l. March 6, 2018 – letter on Mr. Pruitt's wasteful spending

EPA provided a response on August 21, 2018.

m. March 12, 2018 – letter on EPA's decision to repeal emissions standards for glider trucks

EPA provided a response on October 16, 2018.

n. March 14, 2018 – letter on EPA's reversal of the once-in-always-in policy

EPA provided responses on June 6, 2018, and July 9.

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o. April 3, 2018 – letter on Mr. Pruitt's decision to reverse EPA's prior determination on greenhouse gas tailpipe standards

EPA provided a response on June 6, 2018, and subsequent link to documents responsive to this letter on November 21.

p. April 3, 2018 – letter on Mr. Pruitt's December 2017 trip to Morocco

We look forward to continuing to work with your staff to provide a response.

q. April 9, 2018 – letter on Mr. Pruitt's use of Safe Drinking Water Act authority to award large pay raises to favored aides

A link to documents responsive to this request was sent on August 31, 2018. We look forward to continuing to work with your staff to provide a response.

r. April 12, 2018 – letter on Mr. Pruitt's multiple ethics and wasteful spending practices

A link to documents responsive to this request was sent on May 4, 2018, August 21, and November 20. We look forward to continuing to work with your staff to provide a response.

s. April 24, 2018 – letter on EPA's drafting of the secret science rule and its major flaws

We look forward to continuing to work with your staff to provide a response.

t. May 3, 2018 – letter on EPA's signing of a Cooperative Research and Development Agreement with Water-Gen

We look forward to continuing to work with your staff to provide a response.

u. May 15, 2018 – letter on reports that the White House prevented the release of a study concluding that PFAS poses a danger to human health at lower levels than set by EPA

EPA provided a response on May 21, 2018.

v. May 17, 2018 – letter on EPA's significant delay of the IRIS assessment on formaldehyde

EPA provided a response on July 5, 2018.

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w. May 21, 2018 – letter on Mr. Pruitt's compliance with rules governing his legal defense fund

EPA provided a response on July 31, 2018.

x. June 27, 2018 – letter on EPA's reduced enforcement of the Clean Water Act

We look forward to continuing to work with your staff to provide a response.

y. November 15, 2018 – letter on EPA's federal advisory committees

We look forward to continuing to work with your staff to provide a response.

z. December 3, 2018 – letter on the Trump Administration's preparation and release of the Fourth National Climate Assessment

We look forward to continuing to work with your staff to provide a response.

aa. December 6, 2018 – letter regarding EPA's compliance with GSA's travel regulations

We look forward to continuing to work with your staff to provide a response.

bb. December 19, 2018 – letter requesting communications between industry and EPA about fuel economy or greenhouse gas tailpipe standards

We look forward to continuing to work with your staff to provide a response.

cc. January 10, 2019 – letter requesting documents related to the government shutdown and use of furloughed staff to prepare you for your confirmation hearing

We look forward to continuing to work with your staff to provide a response.

dd. January 10, 2019 – letter on Diane Hendricks' $50,000 contribution to Scott Pruitt's legal defense fund

We look forward to continuing to work with your staff to provide a response.

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Questions on other Clean Air Act issues

52. The Ozone Transport Commission has documented electric generating units (EGUs) that appear to have turned off their nitrogen oxide (Nox) controls. What are the public health and environmental impacts of these actions? Are downwind states including Maryland, Delaware and Connecticut adversely impacted by transported NOx and/or ozone?

The Clean Air Act's "good neighbor" provision requires EPA and states to address interstate transport of air pollution that affects downwind states' ability to attain and maintain National Ambient Air Quality Standards (NAAQS). Specifically, Clean Air Act section 110(a)(2)(D)(i)(I) requires each state in its State Implementation Plan (SIP) to prohibit emissions that will contribute significantly to nonattainment of a NAAQS, or interfere with maintenance of a NAAQS, in a downwind state.

EPA has determined that the Cross-State Air Pollution Rule (CSAPR), the CSAPR Update, and the CSAPR Close-out (finalized 12/6/18) fully address states' good neighbor obligations for the 1997 and 2008 ozone NAAQS and the 1997 and 2006 PM2.5 NAAQS. For power plants covered by this program for cross-border ozone, nitrogen oxide emissions have dropped by over 20 percent - roughly 80,000 tons - just since the 2016 ozone season.

The recently finalized CSAPR Close-out rule determined that emission reductions under the CSAPR Update will sufficiently control transported ozone pollution with respect to the 2008 ozone NAAQS in states covered by the Update. EPA is actively working with states to provide the technical tools and information to facilitate "good neighbor" state plans addressing interstate transport under the 2015 ozone NAAQS. More information on EPA's efforts to address interstate ozone transport is available at: https://www.epa.gov/interstate-air-pollution-transport.

53. In your August 1, 2018 hearing before the EPW Committee, you said you could not "predict with certainty" the effects EPA's rollbacks would have on transport pollution and attainment status for states. In part, that is because at the time EPA had not modeled any of the effects these rules may or may not have on states. Since that time, has EPA modeled the effects of the proposed clean air regulations and changes in guidance on air pollution and transport pollution?

The U.S. is a global leader in clean air progress, and EPA expects these trends to continue in the future. For example, as part of its effort to provide data and analyses to support state planning efforts, EPA projects that nearly all areas of the country will meet the 2008 and 2015 ozone standards in the early 2020s. These projections are based on an air quality modeling platform which includes emissions, meteorology and other inputs for a base year as well as emissions for a future analytic year base case. EPA projections are based on a number of key inputs, including on-the-books rules. For the actions identified, EPA regularly conducts accompanying analyses to evaluate relevant regulatory impacts.

This progress builds upon recent trends which are not driven solely by Clean Air Act requirements. Between 2007 and 2017, emissions of nitrogen oxide (NOx), the key contributor to ground-level ozone, have dropped in the U.S. by more than 40 percent. For power plants that EPA and states regulate to address cross-border ozone contributions, NOx emissions dropped by 77,000 tons (21 percent) just between the 2016 and 2017 ozone seasons. From 1970 to 2017, the combined emissions of the six key pollutants regulated under the National Ambient Air Quality Standards dropped by 73 percent, while the U.S. economy grew more than 260 percent and the population continued to expand.

a. If the Affordable Clean Energy Act goes final, how will that affect downwind pollution and the states' ability to meet attainment status for all National Ambient Air Quality Standards (NAAQS), and State Implementation Plans (SIPs), since EPA estimates there will be an increase in sulfur dioxide and ozone pollution from this rule?

   The proposed Affordable Clean Energy (ACE) rule is projected to significantly reduce emissions, including sulfur dioxide (7,000 to 15,000 tons), and nitrogen oxides (8,000 to 15,000 tons). The Clean Power Plan (CPP) was stayed by the Supreme Court and thus never achieved any emission reductions.

b. If EPA rescinds MATS, how will that affect downwind pollution, the states' ability to meet attainment status for all NAAQS and SIPs?

   EPA has not proposed to remove or delist electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind the emission standards to which those units are currently subject.

c. What are the effects of the "once in, always in" change in guidance on downwind pollution, the states' ability to meet attainment status for all NAAQS and SIPs?

   In a 2007 proposed rule, EPA projected that rescinding the "once in, always in" policy would result in an overall reduction in emissions. Further, a rulemaking currently underway to implement the January 2018 interpretive rule, rescinding the "once in, always in" policy, will provide further information regarding the expected emission consequences of this action.

d. What are the effects of the New Source Review changes in guidance on downwind pollution, the states' ability to meet attainment status for all NAAQS and SIPs?

   EPA does not expect the improvements it has been making to the New Source Review program to have any adverse effects on states' ability to meet

attainment status. Where EPA is following up on its NSR guidance with rulemaking, appropriate analyses addressing this matter will be undertaken.

e. How will the changes in regulating methane emissions from oil and gas affect downwind pollution, the states' ability to meet attainment status for all NAAQS and SIPs?

EPA's proposed targeted improvements to the 2016 New Source Performance Standards for the oil and gas industry would streamline implementation, reduce duplicative EPA and state requirements, and significantly decrease unnecessary burdens on domestic energy producers. The accompanying regulatory impact analysis (RIA), which discusses the emissions impacts of this proposal, is available at: https://www.epa.gov/sites/production/files/2018-09/documents/oil_and_natural_gas_nsps_reconsideration_proposal_ria.pdf. The RIA notes that, due to the high degree of variability in ozone and particulate matter responsiveness to volatile organic compounds, EPA did not evaluate the effects on attainment status.

54. Can you name three policies you have formally proposed (not just announced that you will propose) or implemented that the scientific community believes will actually lead Americans to breathe LESS toxic air pollution than they would have had all the protective rules implemented by President Obama stayed in place?

Virtually all of EPA's recent Clean Air Act proposed and final actions would result in continued reductions of air pollution, including hazardous air pollutants, criteria pollutants like ozone and particulate matter, as well as greenhouse gases. For example, the proposed Affordable Clean Energy rule is projected to significantly reduce emissions, including 2030 reductions of carbon dioxide (12 to 27 million tons), sulfur dioxide (7,000 to 15,000 tons), and nitrogen oxides (8,000 to 15,000 tons). I would note that the Clean Power Plan was stayed by the Supreme Court and thus never achieved any emission reductions. In addition, on November 13, 2018, EPA announced the Cleaner Trucks Initiative, a future rulemaking to update standards for nitrogen oxide (NOx) emissions from highway heavy-duty trucks and engines. Over the last decade, NOx emissions in the U.S. have dropped by more than 40 percent. Nonetheless, EPA expects that heavy-duty trucks will be responsible for one-third of NOx emissions from transportation in 2025. Updating these standards will result in NOx reductions from mobile sources and could be one important way that allows areas across the U.S. to meet National Ambient Air Quality Standards for ozone and particulate matter. Updating the standards will also offer opportunities to reduce regulatory burden through smarter program design.

55. During the August 1, 2018 EPW hearing, I asked you several questions for the record regarding the Renewable Fuel Standard (RFS) and my continued concerns about the volatility in the RFS compliance trading system used by EPA, known as the Renewable Identification Number (RIN) market. Despite promises to act on this issue, I've seen no action to date from EPA on the issue of RIN market manipulation and still do not have a clear answer on how EPA is coordinating with other agencies to address this issue. I was extremely disappointed by your August 1st hearing answers and ask that you please provide greater clarity.

    a. Please provide the dates, times and details of any communication, including any emails and phone calls, between the Commodity Futures Trading Commission (CFTC) and EPA since the CFTC-EPA memorandum of understanding on RIN market manipulation was signed.

    EPA regularly works with other agencies, including the CFTC, on implementation and continued improvement of the Renewable Fuel Standard program. CFTC has a wealth of expertise in terms of rooting out market manipulation and improving the overall function of our nation's commodities markets. EPA has been working with CFTC technical staff to assess what tools or structural approaches could be employed in the RIN market to reduce any manipulation, provide greater transparency and establish stability. Most recently, EPA's transportation team had an extensive conversation with the CFTC regarding these ongoing efforts. Pursuant to President Trump's direction, the agency plans to propose a RIN market reform rule in 2019 that will be followed by a public notice and comment period. We appreciate your interest in these issues and will keep you updated as they progress.

    b. CFTC has stated publicly that it provided EPA with recommendations on what data EPA should be collecting to mitigate RIN market manipulation. Please provide CFTC's recommendations and explain why EPA has refused to make this information public.

    EPA has ongoing dialogue with the CFTC and continues to work consistent with the existing MOU. CFTC has provided recommendations on a number of options aimed at improving the RIN market including the collection of necessary data. Many of CFTC's recommendations will be reflected in our forthcoming proposed RIN market reform rule. Once complete, the proposed rule will be made public and will be subject to a notice and comment period.

c. In your answers to my August 1st hearing questions you indicated your staff had only met with Federal Trade Commission (FTC) staff one time. Was that an accurate assessment? Has the number changed since August 1, 2018? And if true, why isn't EPA having ongoing conversations with FTC on this issue?

My understanding is that, from January 2017 to August 2018, EPA had one conversation with the FTC dedicated to this topic. Recent conversations regarding market stability and associated improvements have primarily been with the CFTC. Through the exchange of information among our agency experts, the CFTC expertise has proven to be the most helpful and applicable in terms of developing out the forthcoming proposed RIN market reform rule. Once a draft of the forthcoming proposed rule is complete, subject to appropriations, it will be submitted to the Office of Management and Budget for interagency review, which will provide the FTC an opportunity to review and provide comment.

d. Your answers to my August 1st hearing questions suggest that your staff only shared RIN data with CFTC from 2010 to August 2016. Why hasn't EPA shared any RIN data with CFTC since August 2016?

EPA shared the above-referenced data because both agencies were working to respond to a specific request from the Renewable Fuels Association, which alleged manipulation during a specific timeframe - 2010 to 2016. After review of that information, the CFTC did not find any misbehavior in the market. Outside of that specific request, EPA and CFTC continue to have regular contact to assess options for improving the RIN market. As previously mentioned, many of CFTC's recommendations will be reflected in our forthcoming proposed RIN market reform rule, which will be subject to a public notice and comment period.

e. The State of California has created a dashboard to provide weekly, monthly, quarterly and annually trading data for its own renewable fuel program. After talking to many stakeholders involved in that process, it seems that California's renewable fuel trading dashboard has been able to provide valuable insight into trading and helped reduced market volatility. EPA can easily create a similar dashboard today and not wait for rulemaking. You have already created a dashboard for small refinery waivers, why hasn't EPA created a RIN dashboard that provides the public weekly, quarterly and annual RIN trading data?

EPA posts RIN transactional and compliance information on our RFS Data website. We are open to comments and suggestions for improving and expanding program and market insight. Currently, information is updated the third Thursday of each month to reflect all transactions submitted through the end of the prior month. Last year, we implemented revisions to the website to incorporate additional data through a more interactive dashboard. Please visit the following link for additional

information: https://www.epa.gov/fuels-registration-reporting-and-compliance-help/public-data-renewable-fuel-standard.

f. The CFTC has successfully used position limits to protect against excessive speculation and market manipulation, which helped stabilize markets. In addition, Canada and California have also used position limits as effective market controls to help reduce market credit hoarding. Canada, specifically, has done so regarding their own RFS program with success. Are position limits being considered in any efforts to improve RIN market transparency and has EPA had any discussions with the CFTC about establishing position limits for the RFS RIN market? If not, why not?

Yes, as part of the ongoing conversations EPA has discussed position limits as a means to improve the RIN market. As previously mentioned, many of CFTC's recommendations will be reflected in our forthcoming proposed RIN market reform rule, which will be subject to a public notice and comment period.

g. Has EPA had any discussions with Canada about their biofuel market credit controls? If so, can you elaborate on those discussions? If not, why not?

I am not aware of interactions with Canada on these issues.

56. With a significant non-compliance rate, why isn't EPA's Office of Enforcement and Compliance Assurance enforcing the manufacturer emission reporting requirements under the residential wood heater New Source Performance Standards rules?

OECA has been successfully working with wood heater manufacturers and retailers, who are mostly small business owners, in providing compliance assistance to help them comply with the regulations. In general, the Agency worked with them on any outstanding certification issues, and, when necessary, addressed observed deficiencies/potential violations during the certification process without collecting any penalties or taking other formal enforcement.

57. In your testimony, you highlighted EPA's announcement that it will officially begin the process to set a new national nitrogen oxide (NOx) emissions standard for heavy-duty vehicles.

a. States have been asking EPA to take this action for over two years. Why is EPA waiting until early 2020 to propose regulations?

On November 13, 2018, EPA announced the Cleaner Trucks Initiative (CTI), a future rulemaking to update standards for nitrogen oxide (NOx) emissions from highway heavy-duty trucks and engines. Over the last decade, NOx

emissions in the U.S. have dropped by more than 40 percent. Nonetheless, EPA expects that heavy-duty trucks will be responsible for one-third of NOx emissions from transportation in 2025. Updating these standards will result in NOx reductions from mobile sources and could be one important way that allows areas across the U.S. to meet several National Ambient Air Quality Standards. Updating the standards will also offer opportunities to reduce regulatory burden through smarter program design. As I am sure you recognize, the development of a technically and legally sound rulemaking proposal for an action of this significance and complexity takes time.

b. Will you finalize a rule in time to help states that have ozone nonattainment concerns meet their SIP requirements for the ozone NAAQS?

EPA intends to finalize the rule as expeditiously as possible, consistent with its responsibility to ensure that any final rule is well supported. We expect this action to reduce NOx emissions and obtain NAAQS.

c. What ozone reduction metric will you use to determine whether the proposal is adequately protective of public health?

We expect the rulemaking to evaluate the appropriate metric to evaluate emission reduction.

d. Emissions control technologies are able to reduce NOx emissions by 90%, down to .02 g/bhp-hr, at approximately $500-1000 per diesel truck by 2024 or earlier. Alternative fuel vehicles such as those with natural gas engines already achieve those reductions. How does this estimated cost compare to the current or projected range of cost-effectiveness of stationary control technologies that might otherwise have to be implemented to achieve the same NOx reductions in ozone nonattainment areas?

These are issues that we expect to be addressed during the rulemaking.

The timeline announced in November will allow full engagement with stakeholders and the opportunity to assess policy considerations identified in your question. More information on the CTI is available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/cleaner-truck-initiative.

Questions on EPA's Use of Science

58. The EPA recently disbanded its 20-member Particulate Matter Review Panel (PMRP) and decided not to convene the Ozone Review Panel. In addition, EPA announced that the responsibility of those two panels to advise on EPA's 5-year review of the National Ambient Air Quality Standards (NAAQS) will be transferred to the significantly smaller seven-member Clean Air Science Advisory Committee (CASAC), and such review will occur on an accelerated schedule. Notably, CASAC's draft comments to you dated December 10, 2018 recommend that you reconvene the PMRP and warns that the accelerated schedule is too short.

    a. Given that your decision to eliminate the first two larger expert panels, transfer the workload to the much smaller CASAC, and speed up the review will have a direct impact on the quality of review conducted, did you consult with CASAC on the accelerated schedule in the memo or the consequences of doing away with panels before you took those actions? If not, please explain why not.
    b. Several members of CASAC have expressed doubt that they have the needed expertise to review the science on particulate matter. Do you still believe that members of this CASAC are qualified to do the work you have asked of them? If so, please explain why.
    c. One of the areas of expertise that is lacking on CASAC is epidemiology, which would information CASAC's understanding of the impacts of particulate matter on early death and heart attacks. Do you believe that CASAC can conduct an informed review of the NAAQS given the absence of this crucial subject matter expertise? If so, please explain why.

CASAC is a seven-member committee, required under Section 109 of the Clean Air Act, which provides critical advice related to National Ambient Air Quality Standards (NAAQS). The membership includes at least one member of the National Academy of Sciences, one physician, and one person who represents a state air pollution control agency. In October 2018, EPA announced the appointment of five new members to the chartered CASAC. More information on CASAC and its members is available at: https://yosemite.epa.gov/sab/sabpeople.nsf/WebCommittees/CASAC.

I believe the current CASAC has the experience and expertise needed to serve in this capacity as well as to complete the reviews for the particulate matter and ozone NAAQS. The chartered CASAC is filled with qualified, independent experts who have decades of experience working on ozone and particulate matter issues and a diverse set of backgrounds in fields like toxicology, engineering, medicine, ecology, and atmospheric science. EPA also has the ability to seek advice from other experts to assist CASAC as needed for these reviews.

Tasking the chartered CASAC with overseeing these reviews ensures the early engagement of the advisors who ultimately provide advice to EPA, and this action is consistent with the Clean Air Act, regulations implementing the Federal Advisory Committee Act, and CASAC's charter. In May 2018, EPA issued a memorandum

outlining a "Back-to-Basics" process for NAAQS under the Clean Air Act. This memo ensures that EPA and its independent science advisors follow a transparent, timely, and efficient process in reviewing and revising public health- and welfare-based NAAQS. Consistent with the memo, EPA intends to finalize any necessary revisions to the ozone and particulate matter NAAQS by the end of 2020.

EPA welcomes feedback during all stages of these reviews from members of the scientific community and public. The Committee has received feedback from a number of outside experts during recent public meetings and teleconferences.

59. Please provide a copy of the IRIS Handbook that has been completed but is not yet published.

The IRIS Handbook is being revised in response to additional comments received from the Agency, and has not concluded the interagency review process. We intend to provide the Handbook when the revision is completed.

Questions on other Clean Water Issues

60. It has been a very long time since Washington, DC struggled with its lead in drinking water discovery, and it has been four years since the drinking water crisis erupted in Flint, MI.
    a. How many lead service lines in Flint have been replaced as of December 31st, 2018?
    b. Administrator Pruitt made lead—especially in drinking water—an agency priority, declaring a "War on Lead" in February 2018. Approximately 5000 municipalities across the country exceeded the 15 parts per billion standard in place at the time of his declaration. How many of those municipalities now comply with that legal limit?
    c. What has EPA done to facilitate that compliance?
    d. Having admitted a failure of oversight in the Flint situation, could you describe how EPA has since strengthened its oversight of state drinking water programs?

The EPA recently received a status report from the City of Flint regarding its ongoing efforts to identify and replace lead service lines, an effort funded in part through the Water Infrastructure Improvements for the Nations Act (WIIN Act). According to the City of Flint: "As of January 14, 2019 there have been 20,131 service lines replaced or identified as copper. The City of Flint has approximately 28,400 active residential water accounts. We have approximately 8269 lines left to identify or replace. If we assume 20% of the remaining 8269 lines to be lead and need replacement we have approximately 1,654 lead service lines remaining in the system. At this time weather is allowing the project to continue and these numbers are subject to change." The City has evaluated connections to more than 15,000 homes and has identified and replaced lead or galvanized steel service lines to over 7,000 homes.

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The EPA supports the Michigan Department of Environmental Quality (MDEQ) in its continued efforts to work with the City of Flint and all other public water systems to improve drinking water quality throughout the State of Michigan. This includes working with the City and MDEQ to ensure that the requirements of the EPA's Emergency Order and amendment are being addressed. The drinking water system in Flint has returned to compliance with the Lead and Copper Rule (LCR) and the EPA is committed to supporting the City and State in their efforts to ensure the delivery of a safe and sustainable water supply to the residents of Flint.

The EPA has also reached full agreement with the Inspector General (IG) on the actions the agency will implement in response to the Flint, Michigan IG Report. The EPA's actions to address the IG's recommendations are well underway. For example, the EPA is working aggressively to update the LCR and is working with states to ensure full implementation of existing LCR requirements. That engagement includes working with state, local, tribal and other stakeholders to identify LCR implementation challenges and provide technical assistance and communication tools to address those challenges. To improve technical knowledge and implementation of the LCR and its corrosion control requirements, for example, the EPA conducted approximately 30 in-person technical trainings across the country in all ten EPA regions over the last two years. This full-day training focused on optimal corrosion control treatment to improve compliance and reduce lead exposure at the tap through successful implementation of corrosion control treatment. The training also provided participants, including states, technical assistance providers and water utility operators, an opportunity to work through case studies, analyze actual water system data and participate in interactive activities. Over the last two years, the EPA also hosted its LCR 3-Part Webinar series and monthly webinars for small systems; conducted national training on sample site selection; provided individual trainings to the National Rural Water Association and the State of California; and hosted a three-day online training with Guam and Hawaii. In 2018, the EPA's Office of Research and Development and the Office of Water hosted the National Drinking Water Workshop with 400 participants in attendance. This workshop included multiple sessions on lead testing, lead service line replacement, and other LCR topics. It also included a two-hour discussion between states, the EPA, academia experts and workshop participants on key issues and implementation challenges related to the LCR.

The EPA also collaborates with states and public water systems to update our nation's drinking water infrastructure, including important projects to reduce lead in drinking water. The FY 2019 President's Budget request included $863.2 million for the Drinking Water State Revolving Fund, allowing states to finance high priority infrastructure investments, including the replacement of lead service lines to protect human health. The FY 2018 Omnibus appropriation provided $50 million for three new grant programs under the WIIN Act. These funds will help public water systems meet Safe Drinking Water Act requirements, provide funding for infrastructure projects that reduce the presence of lead in drinking water, and assist schools and childcare facilities with voluntary lead testing programs. In addition, the Water Infrastructure Finance and Innovation Act (WIFIA) program is inviting 39 projects in 16 states and

Washington, D.C. to apply for loans totaling over $5 billion to help finance over $10 billion in water infrastructure investments, in FY 2019, but not all of those projects are associated with lead. Multiple projects selected in FY18 involve reducing lead or other contaminants and address aging infrastructure.

As indicated in the EPA's response to the IG Report, the agency has also worked to strengthen its oversight of state drinking water programs nationwide. For example, in response to the EPA's, New England states', and water utility proactive measures, as of August 2018, more than 99% of the public water supply systems in New England that are obligated to meet requirements of the LCR are meeting the drinking water lead action levels. Recognizing that there is no safe level of lead in drinking water, the 1991 LCR set a health-based maximum contaminant level goal of zero. The LCR also established an action level of 0.015 mg/L (15 ppb) for lead. Exceedance of the lead action level is not a violation but rather results in the public water system having to take actions to reduce lead exposure, which could include optimizing corrosion control, removing lead service lines, and conducting public education. Failure to take such actions results in a violation of the LCR that is called a treatment technique violation.

A 2016 analysis prepared by an environmental nongovernmental organization indicated that 5,363 community water systems had violated the LCR based on 2015 SDWIS data. According to the report, the analysis included counts of violations for failure to take actions to reduce lead exposure, to test, or to report test results. The majority of these community water systems receiving violations had a treatment technique violation. Based on the most recent data in SDWIS, approximately 97% of these treatment technique violations have returned to compliance. Since 2016, the EPA and the states have enhanced oversight and collaboratively provided targeted technical assistance to address compliance with the complex and challenging LCR requirements. This assistance has improved the states' technical capabilities to address LCR violations and aid systems in achieving compliance with the LCR.

61. Please explain EPA's intentions regarding the discharge of partially treated or "blended" sewage from wastewater treatment plants.

    a. Does EPA intend to propose regulations permitting discharge of partially treated or blended sewage from wastewater treatment plants? If so, when?
    b. If so, under what circumstances (i.e., what thresholds of rainfall, etc.)?
    c. Does EPA have evidence that such discharges are safe for public health and the environment? If so, please provide it.
    d. In EPA's assessment, how effective are so-called "side-stream" technologies, proposed by treatment plant operators, as an alternative to their historic treatment methods?

The EPA is currently engaged in rulemaking to address longstanding questions regarding permit compliance in wet weather events. The agency is working with stakeholders as we prepare options for the proposed rulemaking. No final decisions

regarding the content of the proposed rule have been made at this time. The EPA will consider all appropriate information regarding the relationship between wet weather discharges and compliance with water quality standards during the rulemaking process, including, for example, resources like a 2014 public forum the EPA facilitated on potential public health impacts associated with wet weather discharge events. Documents from that forum are available at: https://www.epa.gov/npdes/npdes-experts-forum-public-health-impacts-wet-weather-blending-documents. The EPA will also consider available treatment, cost and related data on potential side-stream technologies as it continues its stakeholder outreach and proposed rulemaking.

62. As you know, the proposed WOTUS Rule you and the Army Corps of Engineers propose is notably lacking in specifics related to some of the necessary details the public needs to fully consider the implications of your proposal, much less address the numerous and potentially rule-obliterating questions posed in the preamble.

    a. With that concern in mind, please provide estimates of the miles and acres affected for the following categories of waters covered by the proposed rule (please provide this information on a state-by-state basis):
        i. The number of miles of ephemeral streams;
        ii. The number of miles of intermittent streams;
        iii. The acres of wetlands without a surface water connection to any "waters of the United States" as the December 2018 proposal would define that term;
        iv. The acres of wetlands without a surface water connection to any "waters of the United States" as the December 2018 proposal would define that term plus those wetlands with a surface water connection only to intermittent streams; and
        v. The acres of ponds that will not qualify as "waters of the United States" as the December 2018 proposal would define that term.

    b. To further assist our consideration of the proposed rule, please provide the following information (also on a state-by-state basis) for each of the categories of waters identified in response to question 16(a) above:
        i. The population served by drinking water systems with source water protection areas containing any of the waters identified above.
        ii. Any dischargers permitted under the National Pollutant Discharge Elimination System to discharge to any of the waters identified above.
        iii. Any facilities subject to the oil spill prevention, control, and countermeasure program because of their potential to affect any of the waters identified above.
        iv. Any of the waters identified included on a state list submitted to EPA pursuant to section 303(d)(1) of the Clean Water Act.
        v. Any enforcement action under the authority of section 309 of the Clean Water Act, in which the water body about which the violation was alleged

was any of the waters identified above. This includes any compliance order, civil or criminal action, or assessed administrative penalty.

vi. Any jurisdictional determination (either preliminary or approved) by the U.S. Army Corps of Engineers which assessed whether a water body was a "water of the United States" and for which the subject water was any of the waters identified above.

vii. Any activity for which an applicant has sought a federal license or permit and which may result in a discharge into any of the waters identified above, for which the state has granted, denied, waived, or provided conditional certification pursuant to section 401 of the Clean Water Act.

The EPA and the Department of the Army provided significant, substantive supporting documentation for the proposed "waters of the United States" rule that was posted to our website in December along with the pre-publication text of the proposed rule and its preamble. See https://www.epa.gov/wotus-rule/step-two-revise. The documents entitled "Resource and Programmatic Assessment for the Proposed Revised Definition of 'Waters of the United States'" and "Economic Analysis for the Proposed Revised Definition of 'Waters of the United States'" identify, where possible, how the proposed definition might affect categories of water resources across the country and potential effects on Clean Water Act programs. The agencies have also identified data limitations that prevent quantitative national estimates for many Clean Water Act programs, due in large part to the fact there is no nationwide map depicting "waters of the United States" under previous regulations nor that could identify waters that would be jurisdictional under the proposal.

With regard to water resources, state-based information on ephemeral, intermittent, and perennial stream miles and wetland acreage as mapped in the National Hydrography Dataset and National Wetlands Inventory, respectively, is presented in Table A-1 of the Economic Analysis. The numbers and percentages of streams and wetlands by category presented in Table A-1, however, do not equate to a quantification of waters that will or will not be jurisdictional under the proposed rule or existing regulation. The agencies discuss potential impacts of the proposal on Clean Water Act section 303, 311, 401, 402, and 404 programs and other relevant federal regulations in the Economic Analysis and Resource and Programmatic Assessment. Regarding data limitations, see for example the discussion in Section II.C. of the Economic Analysis and Section 4 of the Resource and Programmatic Assessment Appendix A. With respect to section 404 permitting, see for example Table 3 of the Resource and Programmatic Assessment Appendix A summarizing the total number of waters by category in the Army's fiscal year 2013-2017 approved jurisdictional determination data under pre-2015 practice. Note that in addition to the analyses discussed in the documents supporting the proposal, the agencies maintain websites that contain specific information on the jurisdictional determinations completed under section 404. See http://corpsmapu.usace.army.mil/cm_apex/f?p=340:11:0::NO and https://watersgeo.epa.gov/cwa/CWA-JDs/.

In Clean Water Act enforcement cases, the EPA would have gathered evidence to support a claim that there is a discharge to a navigable water or a tributary of a navigable water or a wetland adjacent to a water of the United States applying the EPA's 1988 regulations, the 2003 *SWANCC* legal memorandum, and the 2008 *Rapanos* guidance. However, those documents all lack the clarity of the December 2018 proposed rule. For example, none of them use the 2018 proposal's definitions of "intermittent," "ephemeral," and "adjacent wetlands," and do not define "tributary." Accordingly, the factual records the agency would have developed to support a claim of jurisdiction do not lend themselves to categorizing enforcement actions as you have requested.

Senator Booker:

63. Following the passage of the newly strengthened Toxic Substances Control Act (TSCA), EPA proposed two rules banning certain uses of trichloroethylene (TCE). EPA has since delayed finalizing these bans for more than 2 years and has stated its intent to ignore exposure to TCE from releases into air, water, and land in a review of the chemical.

    a. Are you aware that TCE is a known carcinogen linked to neurological damage and birth defects that is polluting the air, land, and water in my state and in states across the country?
    b. Will you commit to finalizing the proposed bans on TCE within 90 days in order to protect the health of children and workers while you continue the broader risk evaluation of TCE under TSCA?
    c. Will you commit to ensuring that EPA incorporates all known releases of and exposure to TCE, including through air, soil, and water, in its ongoing risk evaluation of TCE?

EPA has determined that the most-appropriate approach for addressing TCE exposures identified in the proposed rule is to evaluate those exposures in the risk evaluation currently being conducted using the scientific standards required by the Lautenberg Act amendments to TSCA. The risk evaluation will include all releases and exposure pathways that are appropriate under the conditions of use described in the TCE problem formulation document. As required, EPA will evaluate the risks to sensitive subpopulations identified as relevant to the evaluation, including children and workers as appropriate. The draft risk evaluation will be subject to public comment and scientific peer review, and the final risk evaluation is expected to be published by the end of 2019. This does not preclude EPA from finalizing the proposed TCE rule.

64. One positive action taken under Administrator Pruitt was EPA's commitment to finalizing a ban proposed for all consumer and most commercial uses of methylene chloride in paint strippers. The record EPA assembled two years ago to support the need for a ban on most commercial as well as consumer uses is clear: Allowing such products to stay on the market based on reliance on increased labeling, protective equipment, or training requirements will not protect the public's or workers' health. It now appears that you are rolling back that

commitment and planning to limit the ban of this highly toxic and acutely lethal chemical to consumer uses only.

a. Are you aware that workers constitute the vast majority of the more than 50 deaths from these uses, and that any failure to or delay in protecting workers will lead to more deaths?
b. Will you commit to finalizing a ban for all consumer and most commercial uses of methylene chloride, as originally proposed by the EPA?

Yes, under certain circumstances, methylene chloride not only can pose danger, but has also caused worker deaths. The EPA submitted a final rule for methylene chloride paint and coating removal to OMB for interagency review on December 21, 2018, prior to the lapse in appropriations. Questions regarding the scope, implementation, and timing of the final rule and associated EPA actions will depend on the outcome of the interagency review process.

65. As you know, your predecessor declared a "War on Lead" in February 2018 due to the harmful effects this toxic metal can have on human health. As you also know, the legal limit on lead in drinking water is 15 ppb. When the "War on Lead" was announced, approximately 5000 municipalities across the country exceeded that number.

a. To date, how many of those municipalities have come within the legal limit?

Recognizing that any level of lead in drinking water poses some risk, the 1991 Lead and Copper Rule (LCR) set a health-based maximum contaminant level goal of zero. The LCR also established an action level of 0.015 mg/L (15 ppb) for lead. Exceedance of the lead action level is not a violation but rather results in the public water system having to take actions to reduce lead exposure, which could include optimizing corrosion control, removing lead service lines, and conducting public education. Failure to take such actions results in a violation of the LCR that is called a treatment technique violation.

A 2016 analysis prepared by an environmental nongovernmental organization indicated that 5,363 community water systems had violated the LCR based on 2015 SDWIS data. According to the report, the analysis included counts of violations for failure to take actions to reduce lead exposure, to test, or to report test results. The majority of these community water systems receiving violations had a treatment technique violation. Based on the most recent data in SDWIS, approximately 97% of these treatment technique violations have returned to compliance. Since 2016, the EPA and the states have enhanced oversight and collaboratively provided targeted technical assistance to address compliance with the complex and challenging LCR requirements. This assistance has improved the states' technical capabilities to address LCR violations and aid systems in achieving compliance with the LCR.

66. Environmental Justice is something that I am very concerned about. As you know, low income communities, communities of color and indigenous communities are disproportionately located near and harmed by sources of pollution. So I appreciated that in your opening statement that under your leadership EPA was focused on helping the communities that are on the front lines of pollution. But unfortunately it seems to me that the actions you have already taken at EPA will cause great harm in these communities.

As I testified at my hearing, I take very seriously the matter of environmental justice. In the course of developing all of the proposed actions you have cited, the EPA has given careful consideration to whether the action, if finalized, would have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations or indigenous peoples as, the EPA is required to do by Executive Order 12898 and its environmental justice policies. Provided below are specific citations to the EPA's findings in this regard with respect to each of the actions with which you have expressed concerns.

a. Can you please explain how your proposal to repeal and replace the Clean Power Plan will increase protections for human health and the environment in low income communities, communities of color and indigenous communities?

   I direct your attention to the discussion found at 83 Fed. Reg. 44,797 (Aug. 31, 2018). This includes EPA's evaluation of the requirements of Executive Order 12898, https://www.govinfo.gov/content/pkg/FR-2018-08-31/pdf/2018-18755.pdf.

b. Can you please explain how your proposal to weaken oil and gas methane standards will increase protections for human health and the environment in low income communities, communities of color and indigenous communities?

   I direct your attention to the discussion found at 83 Fed. Reg. 52,090 (Oct. 15, 2018). This includes EPA's evaluation of the requirements of Executive Order 12898, https://www.govinfo.gov/content/pkg/FR-2018-10-15/pdf/2018-20961.pdf.

c. Can you please explain how your proposal to delay deadlines for landfill emission guidelines will increase protections for human health and the environment in low income communities, communities of color and indigenous communities?

   I direct your attention to the discussion found at 83 Fed. Reg. 54,532 (Oct. 30, 2018), https://www.govinfo.gov/content/pkg/FR-2018-10-30/pdf/2018-23700.pdf.

d. Can you please explain how your proposal to delay deadlines for wood smoke standards will increase protections for human health and the environment in low income communities, communities of color and indigenous communities?

Finally, I direct your attention to the discussion found at 83 Fed. Reg. 61,585 (Nov. 30, 2018). This includes EPA's evaluation of the requirements of Executive Order 12898, https://www.govinfo.gov/content/pkg/FR-2018-11-30/pdf/2018-26083.pdf.

67. According to the most recent Regulatory Agenda, EPA is still considering a proposal to rollback key updates from the 2017 Chemical Disaster Rule. Last July, I asked that you withdraw the proposed modifications to the existing safeguards that protect communities, especially low-income communities, indigenous communities, and communities of color, from toxic chemicals stored in industrial facilities across the country. What is particularly troubling is that it appears that you are continuing to move forward with the rollbacks even though EPA's own findings show that there is evidence that risks from Risk Management Programs (RMP) facilities disproportionately fall on minority and low-income neighborhoods.

a. What is the status of this work?

We are carefully reviewing comments on the May 2018 proposal. We will work to make sure the Risk Management Program continues to reduce risk while taking into account homeland security concerns with a focus on what actually works in the field.

b. Given your testimony that you intend to focus on protecting communities suffering most from pollution, will you commit to not move forward with this proposal that will place undue burden on those who are most at risk?

As I testified, I take very seriously our responsibility to protect environmental justice communities. EPA gives careful consideration to whether a proposed action, if finalized, would have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations or indigenous people as the EPA is required to do by Executive Order 12898.

A successful Risk Management Program is a high priority for me. For example, in 2018, EPA entered into its largest-ever settlement in the history of enforcing the RMP, valued at approximately $150 million worth process safety improvements. Enforcement and compliance assurance of the RMP program is a National Compliance Initiative.

EPA is committed to promoting improved coordination between local emergency response planners and the regulated industry to ensure that local plans are effective, and responders are adequately informed.

68. Will you provide a date certain by when you will withdraw from OMB review EPA's proposal to revisit the minimum age requirement under the Worker Protection Standard (WPS) and Certification of Pesticide Applicators (CPA) rules, and the designated representative provision of the WPS, in accordance with your commitment to Senator Carper as set forth in your January 2019 letter?

    As of January 28th, the Office of Management and Budget withdrew the Worker Protection Standard and Certification of Pesticide Applicators rules.

69. Will you provide a date certain by when you will remove the above-referenced actions from EPA's regulatory agenda?

    As of January 28th, the Office of Management and Budget withdrew the Worker Protection Standard and Certification of Pesticide Applicators rules.

70. Will you commit to withdraw EPA's proposal to revisit the application exclusion zone (AEZ) established in the revised Worker Protection Standard?

    a. If not, if and when EPA does revisit the AEZ, will you commit to uphold the law and ensure that any revision to the AEZ will protect workers and other persons from pesticide exposure – including exposure from pesticide drift – as required by FIFRA?

    I will follow through on those specific commitments in my January 2019 letter to Senator Carper. I also commit to ensuring that any future proposed revisions to the AEZ will be consistent with FIFRA and protective of workers and other persons.

71. Will EPA commit to seeking input from the FIFRA Scientific Advisory Panel regarding risks to workers and others associated with pesticide drift, as well as how to ensure that there is no unreasonable adverse effects to workers and bystanders from pesticide drift resulting from pesticide application?

    EPA utilizes the best available science in estimating potential risks to workers and bystanders from pesticide applications. To the extent that new science becomes available that necessitates that the agency reconsider its long-standing assessment methodologies for estimating worker and bystander risks, the agency would likely seek review of these proposed methodologies by the FIFRA Scientific Advisory Panel.

72. Will EPA confirm that it will not propose any rule revising the WPS or CPA without first consulting with the FIFRA Scientific Advisory Panel?

Section 25 of FIFRA requires EPA to submit proposed regulations to the FIFRA Scientific Advisory Panel for comment before issuing these proposals for public comment. In developing any regulations, EPA will follow these statutorily required procedures.

73. Will EPA commit to considering the dangers and realities associated with requiring additional personal protective equipment (including the risk of heat stress) when conducting pesticide registration reviews?

When considering whether to require additional personal protective equipment, EPA considers the potential for other risks, including heat stress, during the decision-making process.

Senator Boozman:

74. Acting Administrator Wheeler: There is research taking place in my state and across the United States that would benefit from innovations in plant breeding, such as gene editing. The United States Department of Agriculture (USDA) and Food and Drug Administration (FDA) have been working to quickly develop proposals that will allow these innovations to occur, and grant clarity to my constituents as well as other stakeholders on how gene edited products will be treated. EPA has regulatory oversight over gene edited plants that would produce pesticide-like substances, and yet has not offered any thoughts on the issue thus far. Would you commit EPA to working with FDA and USDA to develop a consistent, interagency approach, in order to grant clarity to affected stakeholders?

If confirmed, yes, I commit to continue working with FDA and USDA to develop a consistent, interagency approach, in order to grant clarity to affected stakeholders.

75. Acting Administrator Wheeler: As you know, the Vessel Incidental Discharge Act (VIDA) was signed into late last year. This was an important measure that will have a long-lasting impact on commercial vessel operators in my state. It's important to start the implementation process for VIDA as soon as possible. Notwithstanding the shutdown's effect on Agency personnel, can you give the Committee some insight on whether the Agency has begun to address VIDA implementation?

Prior to the government shutdown, the EPA had begun implementation of the VIDA legislation. Initial discussions with the U.S. Coast Guard were also held, and the agencies is prepared to move forward with implementing the legislation now that the shutdown has ended.

76. Acting Administrator Wheeler: There is scientific evidence showing ethanol blends above 10 percent can harm older vehicles, small engines (such as lawn mowers), boat engines and motorcycles and is incompatible with the existing retail gasoline infrastructure. What will you do to ensure that the annual RFS-mandated volumes protect the current U.S. vehicle fleet and existing infrastructure?

The Agency has two measures in place to protect against mis-fueling. First, the Clean Air Act section 211(f)(4) "substantially similar" waiver that allows E15 to be put into commerce, includes conditions applicable to fuel manufacturers designed to minimize the possibility of mis-fueling. Second, in conjunction with this section 211(f)(4) waiver, EPA issued the so-called "Mis-fueling Mitigation Rule" under its section 211(c) regulatory authority. This rule extends the 211(f)(4) protections to all entities in the fuel production and delivery chain.

More information is available at: https://www.epa.gov/gasoline-standards/final-rule-regulation-mitigate-misfueling-vehicles-and-engines-gasoline. In addition, the RFS program also evaluates the broader effects of biofuels. In 20218, EPA released Biofuels and the Environment: The Second Triennial Report to Congress, a report required under the 2007 Energy Independence and Security Act. The report can be found at: https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=IO&dirEntryId=341491.

Senator Braun:

77. During your testimony, you stated that you consider yourself an avid conservationist. I was glad to hear you say that you are working to reduce the timetables of superfund cleanup, particularly in situations where the health of young children may be at risk. I remain interested in working closely with you on your conservation efforts.

One area in particular where I would like to cooperate regards the agencies work facilitating private conservation projects. Can you provide a few examples of where EPA has been able to step in and aid private citizens in conservation efforts?

EPA has been actively working with and in support of private and public conservation projects. In August 2018, EPA, the Fourmile Watershed Coalition, and the Four Mile Protection District entered into a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Good Samaritan settlement agreement at the Black Swan Restoration Reach Site in Boulder County, Colorado. The agreement allows these non-liable parties to protect water quality by removing mine tailings from a stream, without fear of incurring Superfund liability. EPA has been pursuing similar agreements with other private parties at other sites.

Also, EPA has a robust Superfund Redevelopment Initiative that actively supports ongoing or potential activities by private and public parties with a focus on future use opportunities, such as by issuing Ready for Reuse site analyses, coordinating remedial actions with reuse plans, promoting long-term stewardship by local private and public partners, and identifying and promoting innovative approaches to conservation and cleanup activities such as through reusable energy sources and coordination with health-based activities. EPA would be happy to work with Congressional staff on any other efforts to aid private citizens in conservation efforts.

78. In November 2016, the EPA published a proposed rule known as the Renewables Enhancement and Growth Support (REGS) Rule. The draft rule proposed a wide range of technical fixes and commented on a number of regulatory issues that biofuel stakeholders have long hoped to address. While the EPA completed the notice and comment process on the REGS rule almost two years ago, the Agency never implemented a final rule.

    a. Can you provide update on the status of the proposed REGS rule and, in particular whether the EPA currently has a timetable for completing this rulemaking?
    b. Is EPA contemplating including various proposals from the REGS rule as a part of other related priority rulemakings such as the RFS reset?

In November 2016, EPA proposed the Renewables Enhancement and Growth Support (REGS) rule and sought public comment on a variety of topics, including on designing an electric RIN-generation program. EPA has not finalized the proposal and continues to evaluate feedback regarding issues like feedstock eligibility, double counting, and verification. At this time, we do not have a timeline to share regarding when further decisions will be made. EPA takes very seriously the interest in this rule and the concerns of the biomass power industry, and I believe we need to resolve these key policy considerations before finalizing the proposal or pursuing alternative regulatory actions as appropriate. More information on the proposal is available at: https://www.epa.gov/renewable-fuel-standard-program/proposed-renewables-enhancement-and-growth-support-regs-rule.

Senator Cardin:

79. In your view, what is the EPA's role in holding the Chesapeake Bay jurisdictions accountable for reducing pollution and meeting target dates, and the role of the Chesapeake Bay Total Maximum Daily Load (TMDL) in that accountability process?

In coordination with the Bay states, the EPA took the lead in the development of the Chesapeake Bay TMDL and the agency's expectation is that Bay states will implement the TMDL in accordance with all applicable legal requirements. We remain committed to working with our state partners to ensure such a result, including reviewing the next phase of watershed implementation planning and evaluating actual reductions in pollutant loading versus targeted reductions. Where the EPA determines that sufficient

progress is not being made, the agency will consider using its federal oversight authorities under the Clean Water Act.

80. As EPA Administrator, will you commit to submitting the Kigali Amendment to the Montreal Protocol to the U.S. Senate for ratification? Please explain why or why not.

    The White House is leading an interagency process to consider the implications if the U.S. decides to ratify the Kigali Amendment. If a decision were made to move towards ratification, the President would send the Amendment to the Senate for advice and consent.

81. Under the EPA's Safer Affordable Fuel Efficient (SAFE) Vehicles Rule for Model Years 2021-2026, the EPA's preferred option of "freezing" existing Corporate Average Fuel Economy (CAFE) and tailpipe carbon dioxide standards for passenger cars and light trucks at model year (MY) 2020 levels for both programs through 2026 will increase U.S. fuel consumption and will result in significant increases in emissions of nitrogen oxide (NOx). The Chesapeake Bay TMDL incorporates air deposition load allocations that account for the emission reductions anticipated by the Chesapeake Bay watershed jurisdictions and other states in the larger Chesapeake Bay airshed. Can the EPA account for the impact of the increase in emissions on the expected decreases in nitrogen deposition in the Chesapeake Bay that are reflected in the Chesapeake Bay TMDL?

    The proposed Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule and its accompanying documents evaluate the potential impacts, including on non-greenhouse gas pollutants like nitrogen oxides, under a range of alternatives. The preliminary regulatory impact analysis, for example, evaluated potential effects for model years through 2029 for greenhouse gases, criteria pollutants (including carbon monoxide, volatile organic compounds, nitrogen oxides, sulfur dioxide, and particulate matter), fuel consumption, vehicle miles traveled, and fatalities. More information is available at Docket No. EPA-HQ-OAR-2018-0283. To my knowledge, an analysis of the proposal's specific impacts on Chesapeake Bay nitrogen deposition has not been conducted.

82. Emissions will also increase under the EPA's proposed Affordable Clean Energy (ACE) Rule that proposes to alter how facilities calculate emissions increases that trigger New Source Review. Please provide an estimate for the Chesapeake Bay airshed of the difference in NOx reductions that were expected to be achieved by implementing the existing New Source Review Program under the ACE Rule versus the Clean Power Plan.

    We would note that the Clean Power Plan (CPP) was stayed by the Supreme Court and thus never achieved any emission reductions. Taking this into account, relative to not taking any regulatory action the proposed Affordable Clean Energy (ACE) rule is projected to significantly reduce emissions, including 2030 reductions of carbon dioxide (12 to 27 million tons), sulfur dioxide (7,000 to 15,000 tons), and nitrogen oxides (8,000

to 15,000 tons). To my knowledge, an analysis of the proposal's specific improvements to Chesapeake Bay nitrogen deposition has not been conducted. To my knowledge, an analysis of the specific impacts on Chesapeake Bay NOx reductions has not been conducted.

83. According to the Environmental Integrity Project's report, "Undermining Protections for Wetlands and Streams: What the Trump Administration's Proposed Rollback of Wetlands Regulations Means for the Chesapeake Bay Region" (December 12, 2018), which uses laser mapping data collected by federal researchers and the University of Maryland, there are 34,560 acres of scattered wetlands called "Delmarva potholes" on the Delmarva Peninsula that would be no longer be subject to federal protections under the proposed revised definition of "waters of the United States." These wetlands help reduce agricultural runoff pollution into the Chesapeake Bay. Do you agree that removing federal protections could mean less flood protection for infrastructure on Maryland's Eastern Shore and more pollution flowing into the Chesapeake Bay and its tributaries?

    The EPA remains committed to the protection of navigable waters consistent with applicable legal authorities while recognizing the important role that states like Maryland play in the protection and management of their resources. For example, I understand that Maryland will be addressing pollutant reduction strategies for the Chesapeake Bay in its upcoming Phase III watershed implementation plan, which could include appropriate management strategies for Delmarva potholes and other important aquatic features in Maryland.

84. During the hearing, there was disagreement about whether California should be able to set its own standards for fuel economy and tailpipe carbon dioxide emissions from new passenger cars and light trucks. Please state how you will protect the ability of states that have adopted California's new vehicle emissions standards under section 177 of the Clean Air Act, including Maryland, to maintain their commitments to air quality?

    EPA and the National Highway Traffic Safety Administration (NHTSA) have jointly proposed a rulemaking for greenhouse gas (GHG) emission and fuel economy standards, respectively, affecting light-duty vehicles for the 2021 through 2026 model years. EPA also proposed to revoke the waiver of preemption currently in place which allowed California (and a number of other states that have adopted the California standards) to adopt their own GHG standards and the zero-emission vehicle program. The proposed legal basis for withdrawing the California Waiver is described in the notice of proposed rulemaking and accompanying documents, available at: Docket No. EPA-HQ-OAR-2018-0283. EPA received a wide range of public comments on the proposal and is carefully reviewing those comments. I am committed to working with California and Section 177 states as EPA and NHTSA determine a path forward consistent with the Clean Air Act and the goal of one national program.

85. Maryland state officials asked the EPA to reconsider its decision not to impose tougher pollution standards on certain Midwestern power plants, despite documentation that their emissions contribute significantly to Maryland's ground-level ozone pollution problem, about two-thirds of which is estimated to come from out-of-state sources, and that emission controls are already installed. Will you work with the State of Maryland in order to ensure that federal health-based air quality standards protect downwind states?

I will work with the State of Maryland to ensure that EPA standards protect downwind states.

86. Will you work with Congress to finalize a ban on the organophosphate insecticide chlorpyrifos? Please explain your position.

EPA is always willing to provide our scientific expertise to Congress. As required by FIFRA, chlorpyrifos is undergoing registration review. EPA is committed to fully evaluating this pesticide using the best available science.

Senator Duckworth:

87. I am extremely concerned that U.S. Environmental Protection Agency (EPA) is failing to meet its statutory duties when issuing and reviewing permits. I am also concerned that EPA political staff are failing to adequately address concerns raised by career staff regarding impacts of industrial pollution on the Great Lakes.

EPA Region 5 reportedly provided a Foxconn facility, to be located in South-east Wisconsin, latitude to draw millions of gallons of water from Lake Michigan and to negatively impact adjacent wetlands. Similarly, EPA career staff have raised concerns regarding the Polymet Mine's water permit application in Minnesota, which remain unaddressed. Public reports indicate that EPA Region 5 staff prepared comments raising concerns with Polymet's water pollution permit application, but were discouraged by political appointees from sharing their concerns with the Minnesota Pollution Control Agency (MPCA).

Will you commit to immediately releasing comments or concerns raised by EPA staff regarding the Foxconn project and the Polymet Mine application?

The EPA followed standard processes for reviewing the Foxconn and Polymet projects, including internal deliberations regarding the facts associated with and the application of legal requirements to those projects. The EPA will initiate a search for responsive documents and update the Senator's office on the status of that search as soon as feasible.

Regarding the Polymet project and associated permit, the EPA staff worked closely with their counterparts at MPCA to address the EPA comments and questions related to the pre-proposed NPDES permit. Prior to MPCAs final permit decision, several

meetings and conversations occurred between career EPA and MPCA staff. All concerns, observations or questions from the EPA Region 5 staff, regarding the Polymet NPDES permit, were communicated to MPCA and helped inform the state's final decision. Ultimately, MPCA made the decision to issue the permit and the EPA staff and regional leadership decided not to issue formal comments on the final permit.

88. The Renewable Fuel Standard (RFS) directs EPA to set annual Renewable Volume Obligation (RVO) levels. These blending mandates increase each year until 2022. However, under the Trump Administration, EPA has provided dozens of "hardship" waivers, reducing the mandate by billions of gallons of renewable fuels. EPA's abuse of these hardship waivers have financially harmed farmers in Illinois while lining the pockets of our Nation's most profitable oil companies. Last year, EPA proposed a "reset" regulation for the RFS triggered by its abuse of these waivers.

    What is your timeline for the release, public comment period and final rule of the reset regulation? How will EPA determine future RVO target levels? Do you expect EPA to reduce RVO target levels for conventional, advanced or cellulosic biofuels? Please identify which categories of biofuel will be impacted by the reset regulation.

    The statutory predicate for EPA to conduct a "reset" rulemaking has now been triggered pursuant to the agency's use of its volume waiver authority under Clean Air Act section 211(o)(7). It is important to note that this waiver authority is separate and distinct from the small refinery waiver authority under section 211(o)(9), and EPA's exercise of the latter authority did not factor in the statutory triggering of "reset" pursuant to section 211(o)(7)(F).

    The agency plans to propose a "reset" rule in 2019. Because of the nested nature of the biofuel categories, each category will be impacted by the reset regulation. EPA will still be required to do a separate Renewable Volume Obligation (RVO) each year.

    We will keep you informed of the progression of the reset proposal and provide further details once the proposal is complete. In addition, after the proposal is complete and published in the Federal Register, all interested parties will have the opportunity to submit comments or additional information to the agency regarding the proposal.

89. Part of EPA's obligation under existing law is to identify, assess and register new forms of renewable fuel for the Renewable Identification Numbers (RIN) Market. However, EPA appears to have a multi-year backlog for congressionally-approved registration and pathway applications.

    In fiscal year 2017, EPA approved 14 new pathways. In 2018, EPA approved 11. EPA works hard to continue to improve the pathways applications process and make decisions on a timely basis. The agency has a range of proposals under development that will provide additional clarity and streamline the pathways process for those

feedstocks, including some that will be proposed in the "reset" rule. EPA expects to propose those rules in early 2019. We will keep you updated on the progression of these pathways improvements.

90. How many registrations and pathway applications are currently pending under the RFS? How many registrations and pathway applications did EPA approve in fiscal years 2017 and 2018? What is delaying the approval of applications and how will you address this backlog?

In fiscal year 2017, EPA approved 14 new pathways. In 2018, EPA approved 11. Currently, there are 21 pending pathway applications. EPA works hard to continue to improve the pathways applications process and make decisions on a timely basis. The agency has a range of proposals under development that will provide additional clarity and streamline the pathways process for those feedstocks, including some that will be proposed in the "reset" rule. EPA expects to propose those rules in 2019. We will keep you updated on the progression of these pathways improvements.

Senator Ernst:

91. Under the Coordinated Framework for the Regulation of Biotechnology, the Department of Agriculture, the Food and Drug Administration, and the Environmental Protection Agency have regulatory authority over the products of plant biotechnology. EPA's regulatory authority falls under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and is specific to "plant incorporated protectants," or "PIPs." New breeding methods such as gene editing allow plant breeders to work within a plant's gene pool to make changes that could have occurred naturally or through conventional breeding, albeit more precisely and efficiently.

    USDA recognized this in Secretary Perdue's March 2018 policy statement on plant breeding innovation. This includes methods such as gene editing that will be increasingly used by plant breeders to produce new plant varieties that are indistinguishable from those that could be developed through traditional breeding methods. Under FIFRA, EPA has the statutory authority to clarify the existing exemption for PIPs derived through conventional breeding includes those applications of plant breeding innovation, such as gene editing that could be achieved through conventional breeding.

    a. Will EPA commit to coordinating with USDA and FDA to ensure a clear and consistent regulatory pathway for products of plant breeding innovation, such as gene editing, in a way that does not stifle innovation in U.S. agriculture?

If confirmed, yes, I commit that EPA will continue to coordinate with USDA and FDA to ensure a clear and consistent regulatory pathway for products of plant breeding innovation, such as gene editing, in a way that does not stifle innovation in U.S. agriculture.

92. In several recent meetings with me, you committed to proposing a rule that would provide relief to the glider truck industry. When do you expect this rule to be proposed? Please provide an approximate date.

We continue our work to formulate an effective solution. We are focusing on establishing an emission standard that is not predicated on the industry going out of business or substantially reducing economic growth potential while also using the appropriate source of authority, such as authority for remanufactured engines under the Clean Air Act. We are also assessing the most appropriate means for analyzing costs and benefits associated with a future rulemaking, including comparing remanufactured glider trucks to used trucks as gliders tend to be bought in lieu of used and not new tucks. While we do not yet have a firm schedule for completing a rule, we plan to move ahead as expeditiously as practicable.

93. At your confirmation hearing, you indicated that lower RIN prices did not necessarily mean that there is less "economic hardship" for small refineries, and that RIN prices were just "one factor" in determining whether or not a refinery faces a "disproportionate economic hardship" so as to justify receiving an SRE.

    a. Besides purchasing RINs, what "other factors" contribute to obligated parties' costs in complying with the RFS?
    b. Is there a scenario where lower RIN prices do not alleviate obligated parties' "economic hardship" under the RFS?

When we consider the economic viability of a small refinery that has applied for a small refinery exemption, we look at a wide range of factors that are laid out two Department of Energy (DOE) studies. As the 2011 report states, "Disproportionate impacts consist of Disproportionate Structural and Disproportionate Economic measures." The factors considered under Disproportionate structural impact include:

- **Access to capital/credit.**
- **Existence of other business lines besides refining and marketing.**
- **Local market acceptance of renewables.**
- **Percentage of diesel Production.**
- **Application of state regulations.**

The factors considered under disproportionate economic impact include:

- **Relative refining margin measure.**
- **Renewable fuel blending (% of production).**
- **Presence in a niche market.**
- **Whether RINs are a net revenue or cost.**

For additional information and the full report, please refer to https://www.epa.gov/sites/production/files/2016-12/documents/small-refinery-exempt-study.pdf.

94. At your confirmation hearing, you stated that it is not viable to "reallocate" biofuel volumes that are waived as part of the RFS's SRE provision to other obligated parties. Beyond resorting to reallocation, are there any other options at EPA's disposal to mitigate the negative effect that SREs have on biofuel demand? For example, in setting Renewable Volume Obligations (RVOs), does EPA have authority to:

    a. Reduce the use of the cellulosic waiver authority to intentionally draw down the carryover RIN bank?
    b. Allow for the partial backfilling of missing cellulosic volumes with non-cellulosic advanced biofuels to reflect the fact that hardship waivers will be more frequently granted?

Your question ultimately goes to the factors that we consider in setting annual RVOs. The factors you cite – *i.e.*, the number of carry-over RINs and the availability of advanced biofuels – are among the many factors we consider each year when we propose and promulgate the RVOs.

95. In responding to a question on small refinery waivers, you noted that geography played a role in awarding these waivers. Where in the small refinery waiver section of the Renewable Fuel Standard does it state that geographic location is a factor that can be considered, or determinative, in the decision to issue a small refinery exemption?

The statute is not specific as to the full range of factors we can or should consider in assessing small refinery exemption applications. We have long held the view that the effect of geographic locations is a relevant consideration.

96. Well into 2017 both the Obama and Trump Administration's readily reviewed and approved facility registrations to produce cellulosic ethanol from corn kernel fiber through a peer-reviewed process. However, since November of 2017 several new registrations for cellulosic production utilizing corn kernel fiber technology have been delayed indefinitely for approval, since EPA has decided to not accept peer-reviewed methods as provided in statute by the Renewable Fuel Standard for approving registrations, even when the registrations use the same methods as the Trump Administration had already accepted.

    The delays caused by EPA has created unnecessary uncertainty for the ethanol industry, technology providers, and their investors. As a result, tens-of-millions of gallons of cellulosic biofuels have not been produced, diminishing the demand for corn at a time when our producers are facing low commodity prices. This hits Iowa particularly hard where more than 15 ethanol plants are already making cellulosic ethanol derived from

corn kernel fiber in their facilities, but because of the delays in registration they are unable to receive the D3 cellulosic RIN they are entitled to under the law. As a result of losing out on the D3 RIN, plants in my state have lost out on up to $65 million in economic value that would greatly benefit our rural communities and farmers during this time of uncertainty for the agricultural industry.

a. Will the EPA begin reviewing and approving new registration applications for cellulosic ethanol derived from corn kernel fiber under the existing peer-reviewed processes used prior to November 2017?
b. What steps will the agency take to restart the review process of these registrations after a 15-month delay?

We continue to actively consider applications to generate cellulosic RINs through the conversion of corn kernel fiber. The analytical issues are particularly difficult to resolve. We believe we are making progress and hope to soon resolve the outstanding issues.

Senator Gillibrand

97. PFAS pollution has been linked to very serious health problems. Drinking water contamination from these chemicals in the village of Hoosick Falls, New York, and at least 172 other communities across the county, has been linked to a number of cases of cancer and thyroid disease. The Department of Health and Human Service's PFAS study released in June of last year revealed that the minimal risk level for human exposure to two types of PFAS chemicals, PFOA and PFOS, should be seven to ten times lower than the level previously recommended as safe by the EPA. In the EPA's new PFAS management plan submitted to the Office of Management and Budget, what level of human exposure to PFAS does the EPA recommend as safe?

The EPA will continue to work with our federal, state, tribal, and local partners on response actions and research into the health impacts of PFAS substances. The EPA will consider any information, including the HHS PFAS study, that may inform our approach to PFOA, PFOS, and other PFAS. The EPA's PFAS action plan will outline the agency's approach to identifying and understanding PFAS exposures and addressing the PFAS challenge. The action plan is currently undergoing interagency review. The EPA will be prepared to discuss the contents of the plan as soon as interagency review is complete, and the plan is public. The Agency continues to provide technical assistance to the state of New York, which has taken the lead role in addressing the PFAS issues in Hoosick Falls.

98. In the EPA's PFAS Management plan, what cleanup standard has been put in place to ensure the effective and timely remediation of PFAS chemicals in communities in New York and across the country?

The EPA's PFAS action plan will outline the agency's approach to identifying and understanding PFAS exposures and addressing the PFAS challenge. The action plan is currently undergoing interagency review. The EPA will be prepared to discuss the contents of the plan as soon as interagency review is complete, and the plan is public.

99. If confirmed, will you commit to increase transparency about PFAS chemicals by adding those chemicals to the Toxic Release Inventory?

EPA is evaluating all of its statutory authorities to increase transparency about PFAS chemicals.

100. When will the EPA begin the process of establishing an enforceable standard for PFAS under the Safe Drinking Water Act?

The EPA is currently evaluating PFOA and PFOS under the Safe Drinking Water Act (SDWA) regulatory determination process, which is a critical next step in determining whether to establish a National Primary Drinking Water Regulation. This process builds on previous efforts the EPA has performed to evaluate and address PFOA and PFOS, including for example publishing health advisories for these chemicals, adding PFOA and PFOS as priority contaminants to the SDWA Contaminant Candidate List for regulatory consideration, and collecting monitoring data for six PFAS compounds, including PFOA and PFOS, from drinking water systems across the country as part of the third Unregulated Contaminant Monitoring Rule.

Under the SDWA, the EPA must consider three criteria when making a determination to regulate a contaminant:

- **The contaminant may have an adverse effect on the health of persons.**
- **The contaminant is known to occur or there is a high chance that the contaminant will occur in public water systems often enough and at levels of public health concern.**
- **In the sole judgment of the Administrator, regulation of the contaminant presents a meaningful opportunity for health risk reductions for persons served by public water systems.**

If the EPA makes a determination to regulate PFOA and PFOS, the SDWA requires that, prior to issuing a drinking water standard, the agency must undertake a number of actions, including developing a health risk reduction and cost analysis, consulting with the National Drinking Water Advisory Council, seeking recommendations from the Science Advisory Board, and publishing a proposed regulation for review and comment. The EPA is committed to performing all mandatory actions under the SDWA as it continues its regulatory evaluation.

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101. It is my understanding that the EPA is close to making a decision on whether to issue a certificate of completion for the remedial actions carried out by General Electric under its consent decree for the Hudson River Superfund site. I am very concerned that the EPA may issue the certificate of completion despite the EPA's own acknowledgement in its draft 5-year review report that the remedy is not yet protective of human health and the environment. In December, the New York State Department of Environmental Conservation (NYSDEC) released a report based on extensive sampling, and found that in many instances, there has not been a significant decline in PCB concentrations in the Hudson River and its ecosystems.

The National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, and New York State—the three Natural Resource Trustees for the Hudson River—all have stated publicly that the cleanup is incomplete and that it will take decades longer than projected by the EPA for the river to meet the numeric goals of the 2002 Record of Decision. Will you hold off on issuing the Certificate of Completion until the numeric goals of the Record of Decision have been met and the remedy is protective of human health and the environment?

Region 2 was glad to provide a detailed briefing on the status of the Hudson River PCBs Superfund site provided to your staff on December 21, 2018. That briefing focused, in particular, on General Electric's request for a "Certification of Completion of the Remedial Action," and EPA's second Five-Year Review (FYR) report for the site.

Prior to the shutdown, EPA had projected that it would be in a position to make a decision regarding General Electric's request for the certification early in 2019. EPA also projected that early in 2019 it would be in a position to finalize the second FYR report.

It is important to note that these decisions were technically to have been made a year ago but were set aside so that EPA could join the New York State Department of Environmental Conservation (NYSDEC) in a joint, rigorous review of all sediment and fish data collected by both agencies.

It is also important to note that the Five-Year Review and any issuance of the Certificate of Completion of Remedial Action exist as separate constructs, each responding to a distinct set of conditions/considerations. Effectively;

1. **The purpose of the Five-Year Review is to determine whether the remedy selected for the site is protective of human health and the environment.**

2. **The purpose of the issuance of the Certification of Completion of the Remedial Action is to confirm the completion of EPA-defined tasks related to the execution of the dredging remedy called for in the 2006 Consent Decree. This action is not dependent upon a determination of protectiveness in the Five-Year Review.**

A more detailed treatment of both the Five-Year Review and the "Certification of Completion of the Remedial Action" is provided below.

A. <u>Five-Year Review</u>

In May 2017, EPA took the unusual additional step of releasing for public comment a draft of the second FYR Report. EPA conducted three public meetings during the 90-day comment period. The 1000-page draft report found that the remedy is not *yet* protective of human health and the environment; but that it is expected to be so after the natural attenuation element of the remedy occurs over a period of more than five decades, as projected in the Record of Decision (ROD) issued in 2002. The draft FYR indicated that PCB concentrations in fish in the Upper Hudson were declining but had not reached protective levels. Because dredging ended in late 2015, less than two years earlier, only limited post-dredging data was available for the draft FYR, though the fish, sediment and water data available at that time were consistent with the 2002 ROD projections.

EPA received over two thousand comments on the draft second FYR Report and has been carefully reviewing these before finalizing the report. The National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, and New York State recommended that EPA conclude the remedy is *not* protective, arguing the remedy did not go far enough to remove PCBs from the river, and that the time for fish recovery will be longer than anticipated by the 2002 ROD.

In advance of finalizing the second FYR Report, EPA has undertaken an in-depth and intensive evaluation of post-dredging sediment and fish tissue data that had become available since the draft report. In collaboration with the NYSDEC, EPA in 2018 conducted an extensive technical review of the results from some 1,200 sediment samples taken by NYSDEC in 2017, along with the results from hundreds of sediment samples taken by GE under EPA's direction in 2016. The review also considered post-dredging fish tissue data. EPA and NYSDEC senior leadership and technical staff met several times during 2018 to discuss these data and their interpretation. A detailed Technical Memorandum setting out the results of this collaborative, in-depth review will be included with the issuance of the final FYR Report.

B. <u>Certification of Completion of the Remedial Action.</u>

This matter is separate from the FYR, with a different purpose and subject to different legal criteria. Under the terms of the 2006 judicial Consent Decree (CD) between EPA and General Electric, GE has requested that EPA issue a "Certification of Completion of the Remedial Action" (COC) which would confirm that GE performed all "Remedial Action" activities – i.e., the dredging,

capping, habitat restoration, and deconstruction/decontamination of the sediment processing facility – required of the company under the CD.

The "Certification of Completion of the Remedial Action" is one of three certifications that GE may request under the CD. These are: (1) the "Certification of Completion of Phase 1 Field Activities," which was provided to GE in 2012; (2) the "Certification of Completion of the Remedial Action" or COC, which GE requested in early 2017 and which is now under consideration by EPA; and (3) the "Certification of Completion of the Work," which certifies that all work required under the CD has been completed, and which will not be available to GE for many decades.

The term "Remedial Action" is explicitly defined in the CD as *not* including the operation, maintenance and monitoring (OM&M) phase that follows the dredging. The remedy selected in the 2002 ROD for the Hudson River PCBs Superfund site was designed to address the most highly contaminated areas in the Upper Hudson River through active remediation – dredging and, where necessary, capping – followed by allowing the river to recover naturally through "monitored natural attenuation" (also called "monitored natural recovery") that is expected to continue to reduce PCB levels in surface sediment over time throughout the river. The 2002 ROD set a remediation goal of 0.05 mg/kg of PCBs in the fish (a level that would allow people to eat fish from the river once a week) and projected that meeting that goal will require more than five decades of natural recovery after the completion of the dredging. The active dredging work, and the decades-long natural attenuation or recovery process, are both explicit and essential components of the selected remedy.

As previously noted, the term "Remedial Action" as used in the CD specifically excludes the OM&M period, when much of the natural attenuation is expected to occur. The "Remedial Action," as that term is used in the CD, consists only of the dredging itself and the other construction work done by GE under the CD.

The CD states: "If EPA concludes … that the Remedial Action has been performed in accordance with this Consent Decree, EPA will so certify in writing to [GE]." Pursuant to this provision of the CD, in early Calendar Year 2017 GE requested that EPA issue the COC. Under the CD, EPA was to have responded to that request within one year. EPA has delayed its response to GE's request for the COC until EPA finalizes its second FYR Report, which includes the above-referenced assessment of sediment and fish data carried out in collaboration with NYSDEC.

It is important to note that the CD includes "reopener" provisions under which EPA can require GE to perform additional remedial work, if specified conditions are met. The reopener can be triggered at any time (whether or not the Certification of Completion of the Remedial Action has been issued) if EPA receives new information which, along with other information (including

previous data and analyses), causes EPA to determine that the remedy will not be protective of human health and the environment, and that specific additional work will achieve such protectiveness. EPA receives new information on a regular, recurring basis as new fish tissue, water quality and sediment data are gathered. EPA has long stated that it will take up to eight or more years of post-dredging fish tissue data to reach a scientifically reliable conclusion about the rate of recovery of the fish.

In conclusion, work on both EPA's response to GE's request for the certification, and the second FYR report, was suspended during the government shutdown. EPA will now resume work on these matters and make determinations on each.

102. Will you meet with relevant local stakeholders before you decide whether to issue the Certificate of Completion to have a more complete discussion of this issue?

EPA headquarters and Region 2 officials have had multiple meetings with concerned local stakeholders over the past several years. Region 2 Administrator Lopez and staff have also met and spoken frequently about this issue with NYSDEC Commissioner Basil Seggos (and his staff) as well as with representatives of the New York State Attorney General's office. Additionally, meetings and/or telephone conferences have been held with NOAA, the US Fish & Wildlife Service, and interested members of Congress. EPA representatives have met regularly with the Community Advisory Group for the Hudson River PCBs Superfund site, which includes members from a number of local stakeholder organizations. EPA does not currently anticipate holding additional meetings with local stakeholders prior to reaching a decision on GE's request for the "Certification of Completion of the Remedial Action" as required by the 2006 judicial Consent Decree.

103. Have you personally read the Fourth National Climate Assessment?

Yes, I have read the Fourth National Climate Assessment.

104. To date, how many briefings or discussions have you had with EPA employees on the topic of the Fourth National Climate Assessment since it was released in November?

I have had one formal briefing by the career EPA staff on the Fourth Assessment and requested additional briefings which have not taken place yet due to the shutdown. I had a couple of informal discussions regarding the assessment around the time of my Washington Post interview.

105. Have you been personally briefed by the EPA scientists and career staff who participated in the drafting and preparation of the Fourth National Climate Assessment?

Yes, I had one formal briefing by the career EPA employees who participated in the preparation of the Fourth Assessment.

106. Please list all individuals not currently employed by the EPA that you have discussed the Fourth National Climate Assessment with, including but not limited to, members of the White House staff and other Administration officials, lobbyists, and business executives.

As part of a regularly scheduled phone call with the National Economic Council, and in a couple White House meetings, I recall this issue being raised. I do not recall having discussed the Assessment with anyone and in particular, I do not recall having discussed it with any officials at the Office of Science and Technology Policy, or any White House component or working group which may been involved in the preparation of the report. Finally, I do not recall having discussed it with any lobbyists or business executives. I have been asked about the Assessment by reporters.

107. In your opinion, what are the key actionable findings for the EPA in the Fourth National Climate Assessment?

I still have additional briefings from my career staff planned which have not yet taken place, so I am reserving judgment on actionable findings. One of the key takeaways in my opinion is that the press did not fully understand the various scenarios and I believe more work needs to be done communicating the findings in assessments such as these in the future.

a. How do you intend to incorporate those findings into EPA you decision making should you be confirmed?

I have prioritized risk communication in all that we do at the Agency and I believe the government needs to be more proactive in explaining findings from such reports since the media did a poor job reporting on the assessment. I am sure that there will be other findings as we continue to examine the assessment.

108. As Acting Administrator, what specific actions have you taken to date in response to the Fourth National Climate Assessment?

I still have additional briefings from my career staff planned which have not yet taken place, so I am reserving judgment on actionable findings.

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109. Is protecting the lives of pregnant women and children from mercury poisoning is an "appropriate and necessary" role for the EPA?

Of course, I care about protecting the lives of pregnant women and children from the harmful effects of all forms of pollution. Clean Air Act Section 112(n)(1)(A) specifies the finding that must be made to authorize EPA to regulate power plants under Section 112. Please see the NPRM signed on December 27, 2018 for our proposed interpretation of Section 112(n)(1)(A), including the term "appropriate and necessary."

110. How is EPA calculating the benefits of protecting the health of pregnant women and children from mercury poisoning in its cost-benefit analysis for the proposed changes to Mercury and Air Toxics Standards?

EPA has not proposed to remove or delist electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind the emission standards to which those units are currently subject. The bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794.

111. Do avoided harms associated with a rulemaking, including reduced childhood development delays, need to be monetized to count as part of a cost-benefit analysis?

EPA regularly incorporates avoided harms, including non-monetized effects, in its regulatory actions in a manner consistent with statutory requirements.

112. In evaluating the costs of a rulemaking, do you believe that externality costs – for example costs to society and public health costs from impacts of a pollutant -- should be considered in addition to the financial costs of compliance?

EPA often evaluates externalities, including societal and public health impacts, in its regulatory actions in a manner consistent with statutory requirements.

113. Will you support continued funding for the EPA's geographic programs, including the Long Island Sound Study and Great Lakes Restoration Initiative?

I recognize the importance of these large regional water bodies to the neighboring communities and the nation. EPA's FY 2019 budget request focuses and prioritizes funding on core programs with a national scope and unique federal role and EPA has a number of core programs that address environmental issues in these watersheds. I also understand and support the role the EPA can play as a convener in certain regional

multi-state programs such as the Great Lakes, at the same time recognizing the importance of the local communities and states in leveraging resources and ensuring progress. The Long Island Sound Study also addresses an important natural resource. We will work closely with the states to make continued progress within the levels appropriated by Congress.

114. The interstate transport of ozone and particulate matter is a serious environmental and public health problem in New York. Cross-state air pollution contributes to death and illness in our state and damages our natural resources. Such pollution generated in upwind states also interferes with New York's ability to meet its legal obligation to attain the national standards set by EPA.

    a. What impacts will the Clean Air Act regulatory actions taken by the EPA during the Trump Administration have on ozone and cross-state air pollution on downwind states like New York?
    b. What is the scientific basis for your response to (a)?

The Clean Air Act's "good neighbor" provision requires EPA and states to address interstate transport of air pollution that affects downwind states' ability to attain and maintain National Ambient Air Quality Standards (NAAQS). Specifically, Clean Air Act section 110(a)(2)(D)(i)(I) requires each state in its State Implementation Plan (SIP) to prohibit emissions that will contribute significantly to nonattainment of a NAAQS, or interfere with maintenance of a NAAQS, in a downwind state.

EPA's Cross-State Air Pollution Rule (CSAPR), the CSAPR Update, and the CSAPR Close-out (finalized 12/6/18) fully address states' good neighbor obligations for the 1997 and 2008 ozone NAAQS and the 1997 and 2006 PM2.5 NAAQS. For power plants covered by this program for cross-border ozone, nitrogen oxide emissions dropped by over 20 percent - roughly 80,000 tons - just since the 2016 ozone season.

The recently finalized CSAPR Close-out rule determined that emission reductions under the CSAPR Update will sufficiently control transported ozone pollution with respect to the 2008 ozone NAAQS in states covered by the Update. EPA is actively working with states to provide the technical tools and information to facilitate "good neighbor" state plans addressing interstate transport under the 2015 ozone NAAQS. More information on EPA's efforts to address interstate ozone transport is available at: https://www.epa.gov/interstate-air-pollution-transport.

In March 2018, EPA received a petition submitted by the state of New York under section 126 of the Clean Air Act. The petition requests that the EPA make a finding that emissions from certain sources in nine states (Illinois, Indiana, Kentucky, Maryland, Michigan, Ohio, Pennsylvania, Virginia and West Virginia) contribute significantly to nonattainment of, or interfere with maintenance of the 2008 and 2015 ozone national ambient air quality standards in New York. EPA will work to respond to the petition

and more information is available at: https://www.epa.gov/ground-level-ozone-pollution/new-york-section-126-petition-may-2018.

Senator Markey:

115. As part of the recent revamp of the Toxic Substances Control Act (TSCA), the EPA received the specific authority to address high-risk uses of three extremely dangerous chemicals: trichloroethylene (TCE), methylene chloride, and N-methyl pyrrolidone (NMP). The Obama Administration proposed to ban several uses of these chemicals outright in 2016, but neither you nor former Administrator Pruitt have put a single one of these bans into effect.

    a. Yes or no, does methylene chloride pose a danger to workers, like painters and builders, who handle that chemical?
    b. Can you commit to ensuring that everyone is protected from this deadly chemical by finalizing the exact ban proposed by the EPA two whole years ago—which has yet to be done, even after Scott Pruitt publicly promised to do so?

Yes, under certain circumstances, methylene chloride not only can pose danger, but has also caused worker deaths. The EPA submitted a final rule for methylene chloride paint and coating removal to OMB for interagency review on December 21, 2018, prior to the lapse in appropriations. Questions regarding the scope, implementation, and timing of the final rule and associated EPA actions will depend on the outcome of the interagency review process.

116. The EPA Integrated Risk Information System (IRIS) program completed revisions of its formaldehyde assessment in the fall of 2017. In reports accompanying the Consolidated Appropriations Act of 2017, both chambers of Congress directed that the agency contract with the National Academy of Sciences (NAS) to conduct an external peer review of the revised IRIS formaldehyde assessment. Accordingly, EPA has already provided $1 million to the NAS for this purpose. The January 2018 EPA IRIS report to Congress indicated that "IRIS plans to deliver an External Review of its Formaldehyde Assessment for public comment and peer review in FY18." I have repeatedly inquired about the status of the IRIS formaldehyde assessment and repeatedly requested that EPA advance the assessment to finalization—a process that involves intra- and inter-agency review, external peer review by the NAS, and public comment.

    a. Will the IRIS program continue to work on and finalize its formaldehyde assessment? If not, why not?

    Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent

Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

Additionally, EPA regulates formaldehyde emissions as a hazardous air pollutant under the Clean Air Act, specifically regulates emission from composite wood products, and remains part of the inventory emissions under regular EPA National-Scale Air Toxics Assessments which EPA uses to model nationwide air concentrations and exposures and provides estimates of the potential cancer risk from breathing an air toxicant.

b. Please provide the timeline and agenda items that will allow EPA to complete the remaining steps in the review process for the revised IRIS formaldehyde assessment.

   i. When will the agency initiate the intra-agency review process?

      Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

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   ii. When will the agency initiate the inter-agency review process?

      Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

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iii. When will the agency release the revised assessment for public comment and peer review?

Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

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iv. When will EPA finalize the IRIS formaldehyde assessment?

Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

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which EPA uses to model nationwide air concentrations and exposures and provides estimates of the potential cancer risk from breathing an air toxicant.

c. Will you commit to providing the revised IRIS formaldehyde assessment to NAS for peer review by no later than the end of calendar year 2019?

Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

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d. Please explain why formaldehyde is absent from the 2018 IRIS Program Outlook.

Because IRIS assessments are major investments in both time and resources, in an August 10, 2018 Memorandum to Agency program offices I requested an update of top priorities for IRIS assessments. Formaldehyde was not identified as a top priority. Program offices identified Hexavalent Chromium, Inorganic Arsenic, Mercury salts, Methylmercury, PCBs, varieties of PFAS, and Vanadium. Should the priority needs change, we will move forward with the draft IRIS formaldehyde assessment. Program offices are able to nominate new assessment needs at any time.

Additionally, EPA regulates formaldehyde emissions as a hazardous air pollutant under the Clean Air Act, specifically regulates emission from composite wood products, and remains part of the inventory emissions under regular EPA National-Scale Air Toxics Assessments which EPA uses to model nationwide air concentrations and exposures and provides estimates of the potential cancer risk from breathing an air toxicant.

e. Please explain the process used to develop the 2018 IRIS Program Outlook, from first inception to completion. In your response, please identify the program and regional offices, including the names of specific individuals, consulted or otherwise involved. Please also identify any other organizations and specific individuals consulted or otherwise involved.

In August 2018, I asked that the IRIS prioritization be reaffirmed across EPA. All agency programs responded to this request though OCSPP and OAR did not provide a list of priorities. Regional responses were coordinated through the programs.

An additional prioritization exercise concluded in late November 2018 and resulted in the current IRIS Outlook posted to the IRIS website in December 2018.

117. To what extent, when, and in what capacity was David Dunlap, Deputy Assistant Administrator for Research and Development in EPA's Office of Research and Development, involved in the development of the 2018 IRIS Program Outlook? Please be very specific.

On August 10, 2018, on my behalf, Jennifer Orme-Zavaleta, Principal Deputy Assistant Administrator for Science, ORD, delivered a memorandum to the Assistant Administrators and their deputies. As laid out in this memo, the programs were asked to identify priorities for future IRIS assessments as part of the Agency's continuing effort to ensure IRIS assessment activities are focused on the most important Agency needs. Additionally, these priorities needed to be verified by program leadership and be accompanied by the signature of each program's Assistant Administrator or acting Assistant Administrator. Each program was given complete latitude to select its own priorities.

Before his departure from the Agency, Dr. Richard Yamada had been responsible for driving the programs towards a final list of priority chemicals responsive to this request. Mr. Dunlap was appointed Deputy Assistant Administrator on September 30, 2018 replacing Dr. Yamada. Mr. Dunlap inherited Dr. Yamada's responsibility with respect to this memo. Shortly after his arrival, Mr. Dunlap urged the Assistant Administrators to complete the task and to follow the directions given in the original, August memo, including the need for the appropriate signatures.

After these priorities with proper signatures were received, a summary memo was sent on December 4, 2018, announcing the seven chemicals for priority IRIS assessment (PFAS counts as one but covers five substances). The list of seven chemicals was then announced to the public via the Agency's website.

118. Mr. Wheeler, you wrote in your testimony that "[t]here is no more important responsibility than protecting human health and the environment."

a. Would the proposed Mercury and Air Toxics Standards (MATS) rule you proposed result in less mercury being emitted from power plants, yes or no?

Because EPA has not proposed to remove or delist electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind or weaken the emission standards to which those units are currently subject, the proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review, were it to be finalized, whould have no effect on mercury emissions beyond the effect of the MATS standards themselves.

119. The Harvard "Six Cities" study, which linked air pollution and mortality risk, is a key study used in assessing many air quality regulations. In 2011, the EPA estimated that the control of particulate air pollution saved 160,000 lives in 2010, and that it will save 230,000 lives in 2020.

a. Under the EPA's proposed "Strengthening Transparency in Regulatory Science" rule, would the EPA be able to use the Six Cities study?

EPA is still in the process of reviewing approximately 9,000 unique, i.e. non-mass mailer public comments and conducting internal deliberations as part of the regulatory development process. No decisions have been made concerning implications for the use of specific studies.

b. As Administrator, do you see any danger in moving forward with the "Strengthening Transparency in Regulatory Science" rule and eliminating the use of studies like the Six Cities study?

As indicated above, the rule is still under development. No decisions have been made concerning implications for the use of specific studies.

120. Do you commit to allowing EPA scientists to continue to conduct research free from political interference and communicate with the public about their findings, including discussing it at conferences and with the media?

Yes. Consistent with EPA's Scientific Integrity Policy, EPA scientists conduct the highest quality research focused on the priorities of EPA's program offices, regions, and states. Adhering to scientific practices of quality assurance and peer review, EPA scientists are encouraged to publish their findings and present them at scientific conferences held throughout the world. EPA's Office of Public Affairs coordinates responses to media inquiries and EPA scientists have been available to address questions raised by the media.

121. At a recent meeting of the EPA Clean Air Scientific Advisory Committee (CASAC), multiple members of CASAC expressed doubt that they had the scientific experience to manage reviewing the science on particulate matter, which includes divergent scientific fields from epidemiology, to toxicology to data science to instrumentation.

   a. Do you still believe that this CASAC has the requisite expertise to provide you with advice on particulate matter?
   b. Epidemiology is a key subject for assessing the health impacts of particulate matter such as early death and cardiovascular illness, yet not a single epidemiologist is on CASAC. How can CASAC adequately assess the science on particulate and health, when its members do not have expertise in key fields like epidemiology and when there is no particulate matter review panel?
   c. Has CASAC consulted with outside experts on PM and ozone standards? If so, with whom?

CASAC is a seven-member committee, required under Section 109 of the Clean Air Act, which provides critical advice related to National Ambient Air Quality Standards (NAAQS). The membership includes at least one member of the National Academy of Sciences, one physician, and one person who represents a state air pollution control agency. In October 2018, EPA announced the appointment of five new members to the chartered CASAC. More information on CASAC and its members is available at: https://yosemite.epa.gov/sab/sabpeople.nsf/WebCommittees/CASAC.

I believe the current CASAC has the experience and expertise needed to serve in this capacity as well as to complete the reviews for the particulate matter and ozone NAAQS. The chartered CASAC is filled with qualified, independent experts who have decades of experience working on ozone and particulate matter issues and a diverse set of backgrounds in fields like toxicology, engineering, medicine, ecology, and atmospheric science. EPA also has the ability to seek advice from other experts to assist CASAC as needed for these reviews.

Tasking the chartered CASAC with overseeing these reviews ensures the early engagement of the advisors who ultimately provide advice to EPA, and this action is consistent with the Clean Air Act, regulations implementing the Federal Advisory Committee Act, and CASAC's charter. In May 2018, EPA issued a memorandum outlining a "Back-to-Basics" process for NAAQS under the Clean Air Act. This memo ensures that EPA and its independent science advisors follow a transparent, timely, and efficient process in reviewing and revising public health- and welfare-based NAAQS. Consistent with the memo, EPA intends to finalize any necessary revisions to the ozone and particulate matter NAAQS by the end of 2020.

EPA welcomes feedback during all stages of these reviews from members of the scientific community and public. The Committee has received feedback from a number of outside experts during recent public meetings and teleconferences.

122. Under the Whistleblower Protection Enhancement Act of 2012, any non-disclosure agreement, whether written or oral, must include statutory language notifying employees of their whistleblower rights.

a. How does the EPA consistently make its employees aware of this right? Please provide examples.

The U.S. Environmental Protection Agency is committed to ensuring that all employees are aware of their rights to be free from prohibited personnel practices including retaliation for whistleblowing. To that end, the Agency issues annual notifications to employees by email and the email includes a link to the U.S. Office of Special Counsel website which includes specific information about OSC's mission, authority and procedures. I have attached my October 25, 2018, notification to the Agency. Specifically, the OSC is an independent federal investigative and prosecutorial agency that protects federal employees from prohibited personnel practices, including whistleblower retaliation and unlawful hiring practices. OSC also provides an independent, secure channel for disclosing and resolving wrongdoing in federal agencies.

Additionally, employees can disclose allegations of wrongdoing to the Office of Inspector General via the OIG's anonymous hotline.

In addition, the Whistleblower Protection Enhancement Act of 2012 directs Inspectors General to designate a Whistleblower Protection Coordinator. The Coordinator's role is to educate agency employees about prohibitions on retaliation for protected disclosures and educate agency employees who have made or are contemplating making a protected disclosure about the rights and remedies against retaliation for protected disclosures.

b. If there was an official finding, internally or externally, that a whistleblower was retaliated against by a member of your staff for a lawful disclosure, how would you respond and what consequences would you recommend that the retaliator face?

If there were an official finding that a supervisor engaged in whistleblower retaliation, the Agency would follow the requirements of the Chris Kirkpatrick Whistleblower Protection Act, S. 585, of 2017. While fact patterns can differ greatly, the Agency would thoroughly review the case and respond as it best deemed appropriate in accordance with the law. As the Agency's annual email notifications highlight, the Agency firmly supports whistleblower rights and protections.

Senator Merkley:

123. In 2009 the EPA issued under its Clean Air Act authority a science-based finding that greenhouse gas emissions endanger public health and welfare. This finding was made after a long public comment period with thousands of comments received and considered.

In *Massachusetts v. EPA*, the Supreme Court held that "greenhouse gases fit well within the Clean Air Act's capacious definition of 'air pollutant,'" and noted that the Act defines "welfare" similarly broadly to include effects on weather and climate. EPA has issued a request for comment on developing a new endangerment finding under Section 111(b) of the Clean Air act for "an already listed category" of pollutant. Revisiting this process would be unprecedented.

Will you commit to respecting the previous scientific process and commit to not revisiting the EPA's 2009 greenhouse gas endangerment and contribution findings?

As I have stated multiple times, I do not intend to reconsider those findings. Having said that, as Administrator, I cannot commit to take any particular action or prejudge the outcome of any matter that might come before me, as I have a responsibility to ensure that whatever actions the EPA might take under the Clean Air Act are within the lawful scope of the EPA's authority under the Act, reflected reasoned decision making, and are taken after providing public notice and comment as appropriate.

124. The Mercury and Air Toxics Standards (MATS) have been tremendously successful and that utilities have already invested significant resources towards abating this type of pollution, and support keeping the standard in place.

But on December 28th, the EPA, under your leadership, said it was no longer "appropriate and necessary" to regulate mercury and toxic air pollution from coal- and oil-fired plants.

In the *Michigan vs. EPA* case in 2015, the Supreme Court ruled that the EPA should have considered the costs at the same time that it decided whether it is was "appropriate and necessary" to regulate hazardous air emissions from power plants. The EPA complied with the ruling by submitting a Supplemental Finding in 2016 to the MATS rule, which examined industry costs and public health benefits.

Under the Trump Administration, the EPA then chose to reopen this Supplemental Finding and focus on attempting to undermine this vital health protection. You claimed that this done under the Supreme Court's mandate.

Please state the exact legal mandate that directs the EPA to revise the MATS rule that was not fulfilled by the EPA's Supplementation Finding in 2016.

EPA has not proposed to remove or delist electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind or weaken the emission standards to which those units are currently subject. The bases for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. The EPA has reexamined the cost analyses presented in the 2016 Supplemental Finding and proposes to determine that neither of the Finding's approaches to considering cost satisfies the Agency's obligation under CAA section 112(n)(1)(A) as interpreted by the Supreme Court in *Michigan*.

125. You further stated that the Clean Power Plan was withdrawn in compliance with the courts. However, the Supreme Court has never issued a determination on the legality of the Clean Power Plan. Instead, the Supreme Court simply stopped implementation while litigation continued. It has three times upheld the EPA's authority to set limits on carbon pollution.

    Additionally, the Affordable Clean Energy plan proposed has been shown by the study "The Affordable Clean Energy Rule and the Impact of Emissions Rebound on Carbon Dioxide and Criteria Air Pollutant Emissions" published in *Environmental Research Letters*, to potentially increase pollution in certain states.

    Please provide the EPA's analysis showing the impacts on individual plants and state level emissions.

    If EPA career staff disagree with the findings of the *Environmental Research Letters* study, I ask that you provide the scientific and cost-benefit justification for the disagreement.

The Clean Power Plan (CPP) was stayed by the Supreme Court and thus was never implemented and never achieved any emission reductions. The proposed Affordable Clean Energy (ACE) rule is projected to significantly reduce emissions, including 2030 reductions of carbon dioxide of 12 to 27 million tons. As you can appreciate, we currently are in the midst of a rulemaking and are actively working to formulate a final rule. We will take your concerns into consideration as we complete the rule. Further information responsive to your questions may be found in the Notice of Proposed Rulemaking (NPRM) for the ACE rule, published at 83 Fed. Reg. 44,746 (Aug. 31, 2018) and in the supporting documents in the docket for this action, EPA-HQ-OAR-2017-0355.

126. In the New Source Performance Standards (NSPS), EPA reduced requirements on monitoring fugitive methane emissions. The EPA finds it would increase the leakage of methane by 380,000 short tons and additionally allow increases in the release of VOCs and other harmful air pollutants.

Why were the increases in VOC and other harmful air pollutants not included in the cost-benefit analysis?

On September 11, 2018, EPA proposed targeted improvements to the 2016 New Source Performance Standards for the oil and gas industry that streamline implementation, reduce duplicative EPA and state requirements, and significantly decrease unnecessary burdens on domestic energy producers. This oil and gas targeted improvements package is expected to save up to approximately $484 million in regulatory costs from 2019 – 2025 or $75 million annually. The accompanying regulatory impact analysis discusses the inclusion and exclusion of certain costs and benefits, and is available at: https://www.epa.gov/sites/production/files/2018-09/documents/oil_and_natural_gas_nsps_reconsideration_proposal_ria.pdf. This analysis included an evaluation of changes in methane, VOC, and HAP emissions.

127. Numerous studies including "Aerial Surveys of Elevated Hydrocarbon Emissions from Oil and Gas Production Sites" published in *Environmental Science and Technology*, and "Assessment of methane emissions from the U.S. oil and gas supply chain" published in *Science* have shown methane leak rates to be higher than EPA accounts for.

Given this fact, what is the justification for weakening these standards?

If the methane emissions leak rate of 2-3% were used, instead of the 1.4% EPA currently uses, what would be the impact on this rule and other methane emissions rules?

EPA proposed targeted improvements to the 2016 New Source Performance Standards for the oil and gas industry that streamline implementation, reduce duplicative EPA and state requirements, and significantly decrease unnecessary burdens on domestic energy producers. This oil and gas targeted improvements package is expected to save up to approximately $484 million in regulatory costs from 2019 – 2025 or $75 million annually.

EPA develops an annual report, titled the *Inventory of U.S. Greenhouse Gas Emissions and Sinks*, that tracks U.S. greenhouse gas emissions and sinks by source, economic sector, and greenhouse gas going back to 1990. EPA publishes the draft report in February to allow for public comment prior to publishing the final report by April 15 of every year. More information on the report, including EPA's assessment of methane emissions rates, is available at: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks.

128. In 2014, the EPA created the "electric pathway" under the RFS program to accelerate the adoption of electric vehicles, the development of charging infrastructure, and the production of biogas electricity by allowing for the creation of "electric-RINs" or "E-RINs".

Since the program's creation, no E-RIN applications for this pathway have been approved, and there are at least six applications pending. These applications have been submitted by vehicle manufacturers, charging stations, and third party clearinghouses, many of whom have been waiting years to receive a decision from your agency.

Does EPA plan to address an electric RIN-generation program in the near future?

EPA has received a number of comments that are under consideration as the agency continues to develop an e-RINs generation program. There are a range of important considerations including assessing the best methods for robust oversight that are key to successful implementation. While we do not have a date certain for completion of the program, we will continue to work through these important issues and will keep you regularly informed of the program's progress.

Will you commit to addressing this backlog and giving these applicants a response within 90 days?

Per the above answer, the agency does not have a date certain for completion of the e-RINs program, but we will keep you regularly informed of the program's progress.

129. The EPA has proposed a rulemaking that will modify applicable volume targets for cellulosic biofuel, advanced biofuel, and total renewable fuels for the years 2020-2022. As part of this rulemaking, the agency will also be proposing volume requirements for biomass-based diesel for 2021 and 2022. This proposed rulemaking includes several regulatory amendments designed to provide clarity and increase opportunities for renewable fuel production.

Can you explain the method by which the EPA intends to clarify or make changes to those existing regulations?

EPA has not yet proposed the above referenced action. The agency plans to propose a "Reset" rule pursuant to the requirements laid out in Clean Air Act section 211(o) in 2019. Part of that rule will include provisions that will streamline elements of the pathways program. We will keep you informed of the progression of the reset proposal and provide further details once the proposal is complete. In addition, after the proposal is complete and published in the Federal Register, all interested parties will have the opportunity to submit comments or additional information to the agency regarding the proposal.

In addition, can you confirm whether EPA intends to include clarifications to the regulations related to existing alternative pathways for advanced and cellulosic biogas?

Per the above answer, EPA has not yet issued the referenced proposed rule. The agency will keep you informed of the progression of the reset proposal and provide further details once it is complete.

130. The updated Toxic Substances Control Act (TSCA) is supposed to regulate thousands of chemicals used industrially, and in an array of consumer products like paint, cleaning products, mattresses, clothes, insulation, and more. But under both former Administrator Pruitt and under your leadership, the Environmental Protection Agency has taken every opportunity to undermine, not enhance, chemical safety.

In evaluating whether a new chemical might pose an unreasonable risk, the law requires EPA to rigorously review both the intended use of the new chemical and any future uses that are "reasonably foreseen," per the definitions of the conditions of use.

However, the EPA announced in 2017 that the TSCA new chemical review process would not include a consideration of the chemical safety risk across all uses of a new chemical, and instead would allow new chemicals to enter the marketplace after considering only the intended uses identified by the industry applicant

Isn't this in direct contravention of what the law requires?

EPA considers all conditions of use, including reasonably foreseen uses (regardless of whether they are identified by the submitter), when conducting a new chemical review. The Lautenberg Act amendments to TSCA required that conditions of use means the circumstances, as determined by the Administrator, under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of. The identification of reasonably foreseen conditions of use will necessarily be a case-by-case determination and will be highly fact specific.

131. Chemicals are often used for purposes that were never initially considered by the original manufacturer. Research has linked exposure to the chemicals in this now ubiquitous product to health effects ranging from reduced fertility to hormone disruption and DNA damage.

I'm concerned that, rather than evaluating the risk a new chemical may pose in the future, EPA is considering only the potential risk from the uses that the first manufacturer of the chemical initially identifies, even though if that chemical is allowed on the market on that basis without any conditions, other manufacturers are likely to use the chemical for other purposes.

Under this approach, EPA would never consider the combined risks from both intended and other reasonably foreseen uses of the chemical. This could result in a failure to address all of the potential risks of the new chemical, and inadequate protection of human health and the environment.

How do you plan on prioritizing EPA resources to ensure that chemical reviews are implemented as required by TSCA?

If confirmed, will you commit to including in both new and existing chemical risk evaluations ALL reasonably foreseeable future uses of chemicals under review?

New and existing chemical evaluations under TSCA are a top priority for the EPA, and I will ensure that resources are allocated appropriately. EPA considers all reasonably foreseen conditions of use (regardless of whether they are identified by the first manufacturer). The Lautenberg Act amendments to TSCA provided that conditions of use means the circumstances, as determined by the Administrator, under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of.

132. Recently, there have been a number of actions taken by the EPA that undermine resource allocation and implementation of the TSCA reform. The final fee rule establishes the "user fees" Congress authorized EPA to collect from chemical manufacturers and processors to help defray EPA's costs for implementing TSCA. This rule dramatically underestimates costs and lets the industry get away without paying its fair share.

In that fee rule, the agency grossly underestimated not only the costs of reviewing Confidential Business Information claims, but entirely excluded its costs to provide ready access to CBI required under the new TSCA to state governments and other qualified persons, or to provide public access to information that does not qualify for protection from disclosure.

If confirmed to lead the EPA, will you commit to prioritizing sound TSCA implementation by fighting for full funding for the agency, maintenance of and support for the Office of Research and Development's scientific work relevant to the TSCA program, and funding and staffing levels necessary to carry out the statute in a balanced way?

I am committed to working with the Administration and Congress to ensure that the TSCA program is adequately resourced to meet its responsibilities and requirements under the law. As you suggest, the new fees program is an important source of TSCA resources. We have put in place an appropriate fee structure based on reasonable resource estimates and assumptions. The statute gives us the opportunity to revisit those assumptions once we gain experience implementing the program.

133. Asbestos is a known carcinogen that has been banned in more than 60 countries, because there is no safe or controlled use of asbestos.

Would you agree that there is no safe or controlled use of asbestos?

To address serious adverse health impact concerns associated with exposure to asbestos, EPA has started two asbestos actions under its TSCA authorities. The first is to evaluate the uses of asbestos that are still being manufactured and imported into the United States. If EPA's risk evaluation shows that any of those uses presents an unreasonable risk to people or the environment, the law requires EPA to take action to eliminate the risk. The second action EPA has taken is to guard against former asbestos uses coming back, either through domestic manufacture or import into the United States. We are working to finalize a rule requiring that certain asbestos uses that are no longer in commerce in the United States, but existed before EPA's partial asbestos ban in 1989, cannot be restarted without EPA review and regulation. The new efforts we have initiated under our TSCA authorities, will give us a better understanding of where risks from asbestos exposure still exist, so that we can apply the most effective and protective approaches to address them.

134. EPA has proposed a significant new use rule (SNUR) for asbestos that opens the door to resuming several uses of asbestos that ended many years ago.

Instead, would you commit to opposing the asbestos SNUR and permanently banning all uses of asbestos under section 6 of TSCA?

All uses previously banned under EPA's prior Asbestos Ban and Phaseout Rule remain banned. EPA's proposed SNUR would prohibit certain unregulated uses of asbestos and require a review from EPA should anyone seek to initiate those uses, which may result in restrictions, including a decision to maintain the prohibition. Without finalizing this SNUR, these uses can currently commence in the United States at any time without review and regulation from EPA. The SNUR is the only way of assuring that these products do not enter the marketplace until the risk evaluations are completed.

135. Millions of people are still exposed to asbestos every single day, in schools, commercial buildings, construction sites, factories, and homes. Yet EPA's ongoing asbestos risk evaluation does not account for the existing presence and ongoing use of asbestos.

Do you support EPA's decision to ignore this risk by removing it from the scope of the risk evaluation?

Will you pledge to work with this Committee to include legacy use and exposure in EPA's ongoing risk evaluation?

EPA is focusing its risk evaluation on asbestos currently manufactured, imported, processed, or distributed in the United States, which falls within the agency's TSCA jurisdiction. Many existing Federal or State regulations protect against asbestos exposure from legacy uses. EPA would be happy to work with the Committee to elaborate on how legacy uses are currently addressed by EPA and other agencies.

136. The risk evaluation also excludes several types of cancer and lung disease, along with all exposure to asbestos resulting from its release into the environment. Think about the thousands of first responders exposed to asbestos dust after the tragedies of September 11th, 2001, and the resulting cases of lung cancer and mesothelioma. That type of exposure is being excluded from EPA's evaluation.

    Will you commit to removing these exclusions, and instead conducting a thorough and comprehensive evaluation?

I share your concern for first responders exposed to the asbestos dust after the tragedies of September 11, 2001. Because cancer is expected to be the risk driver, in conducting further analysis for the risk evaluation of asbestos, EPA intends to limit the scope of the risk evaluation to lung cancer and mesothelioma in humans. Evaluating these health endpoints will help to ensure that EPA's risk evaluation accounts for other health effects as well. We believe that the health effects identified in the problem formulation document are the appropriate ones to address under the risk evaluation's conditions of use.

137. The semiconductor industry in Oregon is a major employer and economic driver. Approximately 24,000 Oregonians are employed in the semiconductor industry, and it is the state's largest export.

    Several Oregon companies have expressed concern about the shutdown and the potential impact it could have on the review and approval of specialized chemicals needed for semiconductor manufacturing. The industry relies on EPA approval of chemicals with specific functional and performance attributes in its highly advanced and complex manufacturing operations.

    The primary family of chemicals that has triggered concern for companies in my state are known as onium compounds, which are primarily used as photoacid generators in the photolithography process used to manufacture semiconductors. Some of these chemicals are currently in use, some of them are under evaluation. In some cases, chemicals are approved for a temporary period of time (e.g., 6 months), and there is a risk that this period may expire without EPA having the ability to extend the approval.

    What is EPA doing to assure these companies and the public that new chemicals are being reviewed in a timely manner and that time-limited approvals will not lapse during this shutdown?

We have a productive ongoing relationship with the semiconductor industry on the onium compounds, which we appreciate are important to the industry's continued development and U.S. leadership. EPA will keep innovation in mind and ensure that chemicals important to the semiconductor industry, such as the onium compounds, move through new chemicals review as expeditiously as possible consistent with TSCA's requirements for evaluation and management under section 5.

138. The Office of Land and Management, which oversees cleanup of toxic Superfund sites, is currently down from 468 staffers to 3.

    Has Superfund site monitoring or oversight been impacted or diminished in any way during the government shutdown as compared to the same time period last year?

    The number of employees in excepted that worked nationwide on Superfund issues was dynamic and varied by region since the agency directed work to meet specific needs as allowed by law. EPA Headquarters and Regional excepted staff in the Superfund Program continued to respond at sites or incidents where there was an imminent threat to the safety of human life or to the protection of property. Work at Superfund sites continued without EPA involvement up to the point that additional EPA direction or funding was needed. Cleanup activities requiring new funding will start now that cleanup activities are able to commence.

139. In 2017, EPA adopted a cleanup plan for the Portland Harbor Superfund site in my home state of Oregon, one of the largest sites currently on the EPA's National Priorities List.

    In response to intense lobbying from two Potentially Responsible Parties of contamination at the site, EPA has proposed weakening the cleanup standards for the entire cleanup based on a new estimate of cancer risks from a single contaminant – benzo-a-pyrene, a polycyclic aromatic hydrocarbon or PAH – even though other contaminants still persist at the site.

    EPA is making this change with incomplete information, before any testing, monitoring, or design is completed for the project – which may reveal additional need for strong cleanup standards. Furthermore, the cleanup plan already provides for a five-year technical review process whereby this new risk assessment can be considered, alongside other public health concerns, to properly weigh whether reduced cleanup is necessary.

    Why is the EPA weakening Superfund cleanup standards at the Portland Harbor Superfund site, thereby exposing the public to greater health risks, without the bare minimum information including: baseline monitoring data, an analysis of how this change will increase health risks from fish and clam consumption, or any analysis of cumulative risks posed by the chemical cocktail in the Harbor?

Does the Portland Harbor Superfund site remain a priority for EPA and are you committed to ensure that adequate resources exist for the Agency to support remediation efforts undertaken by PRPs at the site?

The Portland Harbor Superfund site remains a priority for EPA and continues to be included on the Administrator's emphasis list of priority Superfund sites. This designation will help ensure the site has the highest level of attention to move the cleanup forward. The Agency remains committed to providing the resources needed to work with potentially responsible parties to ensure the remedial designs and remedial actions are implemented at this site.

EPA is proposing changes to the January 2017 Portland Harbor Record of Decision (ROD) based on a new toxicological review related to one contaminant, Benzo(a)pyrene (BaP) that was released approximately two weeks after the Record of Decision was signed. (BaP is a Polycyclic Aromatic Hydrocarbon (PAH) which is produced when coal, oil, and gas are burned, spilled, etc.) Based on national research, EPA updated the estimated health risk for BaP in the *Toxicological Review of Benzo(a)pyrene* for people who contact or ingest the chemical.[16] The review updated the oral cancer slope factor for human health risk for BaP from 7.3 to 1 milligram per kilogram per day. Given that humans have less cancer risk from exposure to BaP, EPA evaluated the potential implications on the cleanup remedial action levels (RALs) from exposure to carcinogenic PAHs (cPAHs) to determine whether any areas slated for active cleanup, primarily due to human exposures from direct contact with contaminated sediments or shellfish consumption, no longer presented an unacceptable risk or may no longer require active cleanup.

To address this new information, consistent with EPA guidance, on October 22, 2018, EPA issued a proposed Explanation of Significant Differences (ESD) that proposes changes to the ROD for the Portland Harbor Superfund site. Under the proposed ESD, the changes would be:

- **Updating the beach sediment cleanup levels (CULs) for cPAHs from 12 to 85 mg/kg.**
- **Including a direct sediment CUL for cPAHs of 774 mg/kg applicable to nearshore sediments**
- **Correcting a mathematical error made in calculating the shellfish consumption sediment CULs, changing it from 3,950 to 39.5 mg/kg and updating the shellfish consumption shellfish consumption CUL for cPAHs from 39.5 to 1,076 mg/kg**
- **Updating the target tissue level for cPAHs in shellfish from 7.1 to 51.6 mg/kg**
- **Updating the highly toxic principal threat waste (PTW) threshold from 106,000 to 774,000 mg/kg – applicable to the whole site**
- **Updating the total PAH remedial action level applicable to sediments outside the navigation channel for 13,000 to 30,000 mg/kg**

[16] The toxicological review available in EPA's Integrated Risk Information System (IRIS). https://cfpub.epa.gov/ncea/iris_drafts/recordisplay.cfm?deid=329750

- **For beaches where recreational use is possible based on existing and reasonably anticipated uses and any sediment CULs are significantly exceeded, signage or other educational institutional controls may be used until the CULs are achieved.**

EPA determined that these changes will maintain the protectiveness of the 2017 ROD. All other elements in the 2017 ROD remain unchanged. These overall changes only affect areas where cleanup is driven solely by human health risks based on actual or potential exposures to PAHs and includes Terminal 4, the west side of the Willamette River between river miles 4 and 7, the upper portion of Swan Island lagoon, and the east side of the Willamette River between river miles 2.5 and 3. The amount of PTW is unchanged.

Overall the estimated total remedial area would be reduced from 364 acres to 347 acres (4.7%) if the proposed ESD is implemented. It is estimated the total cubic yards (CYs) of dredging and riverbank excavation would be reduced by 80,000 CYs – from approximately 3.02 million CYs to approximately 2.94 million CYs. The overall costs would be reduced by an estimated $35 million to $1.015 billion.

EPA accepted public comments on the proposed changes through December 21, 2018. Due to the government shutdown, we have not been able to complete the review and evaluation of those comments, but intend to do so when EPA funding is restored.

140. Last year, EPA and NHTSA released a proposal to roll back the Corporate Average Fuel Economy (CAFE) standards. The proposal would freeze fuel efficiency standards, even though many automakers have already invested in technology research and investment. It would also undermine states' abilities to set higher standards for themselves. And it would result in a drastic increase in carbon pollution.

    In order to boost fuel efficiency, at least 1,200 U.S. facilities and 288,000 American workers are building parts and materials. U.S. automakers have invested nearly $64 billion in these facilities. Your proposal would put these investments, these factories, and these workers in jeopardy.

    Will you commit to working with the states that have their own rules in place and NOT preempting those states that maintain stricter standards?

EPA and the National Highway Traffic Safety Administration (NHTSA) have jointly proposed a rulemaking for greenhouse gas (GHG) emission and fuel economy standards, respectively, affecting light-duty vehicles for the 2021 through 2026 model years. EPA also proposed to revoke the waiver of preemption currently in place which allowed California (and a number of other states that have adopted the California standards) to adopt their own GHG standards and the zero-emission vehicle program. The proposed legal basis for withdrawing the California Waiver is described in the notice of proposed rulemaking and accompanying documents, available at: Docket No.

EPA-HQ-OAR-2018-0283. EPA received a wide range of public comments on the proposal and is carefully reviewing those comments. I am committed to working with California and Section 177 states as EPA and NHTSA determine a path forward consistent with the Clean Air Act and the goal of one national program.

141. Based on the sources you have consulted, please describe the scientific consensus on the role of climate change and its relation to more severe wildfire seasons.

I have reviewed the Fourth National Climate Assessment, but I expect to receive future briefings on the causes of wildfires, including the role of active forest management and climate change.

142. In your testimony, you said you would "continue to read the literature" regarding the causes of catastrophic wildfires. I submit the following articles, including the National Climate Assessment, for your review, which find that climate change has increased the area burned in the Western United States:

    a. Vose, J.M., D.L. Peterson, G.M. Domke, C.J. Fettig, L.A. Joyce, R.E. Keane, C.H. Luce, J.P. Prestemon, L.E. Band, J.S. Clark, N.E. Cooley, A. D'Amato, and J.E. Halofsky (2018). "Forests." In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 232–267. doi: 10.7930/NCA4.2018.CH6.
    b. Abatzoglou, J. T., & Williams, A. P. (2016). Impact of anthropogenic climate change on wildfire across western US forests. *Proceedings of the National Academy of Sciences*, 113(42), 11770-11775.
    c. Keeley, J., & Syphard, A. (2016). Climate change and future fire regimes: examples from California. *Geosciences*, 6(3), 37.
    d. Keyser, A., and A. L. Westerling. (2017). Climate drives inter-annual variability in probability of high severity fire occurrence in the western United States. *Environmental Research Letters*, 12(6), 065003.
    e. Davis, R., Yang, Z., Yost, A., Belongie, C., & Cohen, W. (2017). The normal fire environment—Modeling environmental suitability for large forest wildfires using past, present, and future climate normals. *Forest Ecology and Management*, 390, 173-186.

After reading these articles, do you still believe that climate change has a limited role in the changing patterns of wildfires, including longer, more severe wildfire seasons?

Thank you for the suggested articles on the impact of climate change on wildfires. I have also found these sources to be educational as well. "Fire on the Mountain: Rethinking Forest Management in the Sierra Nevada" report by the Little Hoover Commission, the Independent California Oversight Agency[17]. The California agency stated, "a century of mismanaging Sierra Nevada forests has brought an unprecedented environmental catastrophe that impacts all Californians." Likewise, Professor Cliff Mass with the University of Washington stated recently that "The Camp Fire that struck northern California…is a profoundly disturbing environmental disaster of first magnitude...this disaster was both foreseeable and avoidable, resulting from a series of errors, poor judgment, lack of use of available technology, and poor urban planning." Professor Mass also stated that "Global warming is a profoundly serious threat to mankind, but it has little impact on the Camp Fire and many of the coastal California fires of the past few years." As I continue to examine the science of climate change and the potential impacts, I will try to avail myself of the latest science as well as the scientific advice of the career scientists here at the EPA.

<u>Senator Rounds:</u>

143. Acting Administrator Wheeler, under the RFS, the EPA is granted expanded discretionary authority to set volume obligations after 2022. If confirmed, you very well may be leading the EPA at that particular point in time.

    a. In your professional opinion, what is the range of discretionary authority granted to the EPA after 2022?
    b. How do you anticipate conventional corn ethanol being impacted after 2022?
    c. We need a thriving biofuels industry for a variety of national security reasons, including energy independence and diversity. Do you believe that Congress needs to consider statutory changes to account for the negative possibilities post-2022?

To date, EPA has not taken a position on the details of how it will conduct post-2022 program implementation. It is safe to say that responsibility for setting RVO targets shifts to EPA and that the Agency must consider a wide range of factors in determining appropriate RVO targets and RVOs. I look forward to consulting with you on this important issue as we get closer to implementation of these provisions. Congressional statutory direction would provide the best clarity to allow EPA to implement this program post 2022.

[17] Little Hoover Commission, "Fire on the Mountain: Rethinking Forest Management in the Sierra Nevada," (Report Number 242). February 2018, https://lhc.ca.gov/sites/lhc.ca.gov/files/Reports/242/Report242.pdf.

144. Mr. Wheeler, our trade partners are currently deciding how they will approach the use of gene editing in agriculture. To minimize the chance of trade disruptions, it's critical that the U.S. government have a consistent position across agencies that we can encourage other nations adopt. Will EPA collaborate with USDA and FDA in a timely manner to develop a consistent position? Moreover, is this a matter we can expect EPA to commit sufficient resources to moving forward?

If confirmed, yes, EPA will continue to collaborate with USDA and FDA in a timely manner to develop a consistent position. EPA will allocate resources to this matter as provided by Congress.

Senator Sanders:

Vermont

145. In my questions for the record for the hearing to consider your nomination for EPA Deputy Administrator, I asked whether you would commit to continuing the EPA's support for the clean-up of phosphorus in Lake Champlain through the Total Maximum Daily Load (TMDL) standard that the agency established in 2016. You responded that you would "work within the appropriations levels provided to the EPA by Congress."

In your time thus far at the EPA, have you found the appropriations levels provided to the EPA by Congress to be sufficient to ensure that the EPA's Clean Water Act obligations are satisfied in regard to phosphorus levels in Lake Champlain? If so, please provide a timeline for when the EPA will fulfil its obligations under the TMDL. If not, please describe the funding amounts and specific areas for which congressional appropriations have been insufficient to fulfil the EPA's Clean Water Act obligations, as well as your plan for requesting sufficient funds in the EPA's FY2020 budget request.

The EPA is committed to working with the states of Vermont and New York on their implementation of the Lake Champlain TMDLs. Once Congress provides appropriations, the EPA will continue to perform the agency's oversight responsibilities.

Climate Change

146. In November 2018, the U.S. Global Change Research Program released the Fourth National Climate Assessment (Assessment). Do you agree with the Assessment's findings that climate change will cause the following impacts?

If so, please describe how the EPA has factored in each impact to its decision-making in regard to each of the 33 deregulatory actions the EPA has taken under the Trump administration.

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a. An increase in extreme weather that is expected to damage infrastructure, ecosystems, and social systems, particularly impacting communities and people that were already vulnerable.

b. A decrease in quality and quantity of water available for people and ecosystems due to intensifying droughts, heavy downpours, reduced snowpack, and poor surface water quality.

c. An increased risk of waterborne and foodborne diseases, heat-related deaths, allergic illnesses, vector-borne diseases, and mental health degradation, which are expected to have the greatest impact on older adults, children, low-income communities and communities of color.

d. A negative impact on the economic, cultural, and physical well-being of Indigenous peoples.

e. Degradation of our ecosystems and their services, such as "…clean air and water, protection from coastal flooding, wood and fiber, crop pollination, hunting and fishing, tourism, and cultural identities."

f. Declining crop yields, worsening livestock health, and decreasing economic vitality of rural communities.

g. An increase in power outages, fuel shortages, and service disruptions due to increased stress on our already aging and deteriorating infrastructure.

h. A continued trend of "rising water temperatures, ocean acidification, retreating arctic sea ice, sea level rise, high-tide flooding, coastal erosion, higher storm surge, and heavier precipitation events [that] threaten our oceans and coasts."

i. A reduction in outdoor economies across the United States.

I have reviewed the Fourth National Climate Assessment at this time, but I expect to receive future briefings from EPA career staff on a number of these topics. How EPA may take account of the Assessment in any future rulemaking will be determined on the record in that rulemaking. At the same time, I will note that EPA's regulatory and de-regulatory actions respecting greenhouse gas emissions have incorporated these potential impacts in decision making through the use of the "social cost of carbon" and the "social cost of methane," in accordance with Executive Order 13783 on Promoting Energy Independence and Economic Growth.

147. During this hearing, I asked you whether you agreed or disagreed with President Trump that climate change is a "hoax." You responded by saying that you have not used the word "hoax" yourself. I took that to mean that you do in fact disagree with President Trump's characterization that climate change is a hoax, but I want to ask again, just to be clear: Do you agree with President Trump that climate change is a hoax? Please provide your answer in the form of a "yes" or "no."

I believe that climate change is real, that the climate is changing, and that mankind has an impact on the climate.

148. During this hearing, I asked whether you are concerned by rising sea levels. You responded that rising sea levels are a concern and that you believe in adaptation (but not mitigation) "absent additional congressional authority." The Supreme Court in *Massachusetts v. EPA* found that the EPA does in fact have statutory authority, and indeed a statutory obligation, to regulate the carbon dioxide emissions that cause climate change.

Given that the EPA does in fact have congressional authority to mitigate climate change by regulating carbon dioxide emissions, would you like to alter your testimony?

Given that the EPA does in fact have congressional authority, and indeed a statutory obligation, to mitigate the causes of climate change, please provide your plan, including a timeline, for issuing regulations on greenhouse gases to bring the United States in line with carbon pollution emissions reduction targets prescribed by the Intergovernmental Panel on Climate Change's "Global Warming of 1.5°C" report.

I believe that my testimony was correct and as I stated at the hearing and have stated many times before, including during both of my previous hearings, we are implementing the *Massachusetts v. EPA* Supreme Court decision, which is why we are moving forward with the ACE proposal to replace the Clean Power Plan. The Clean Power Plan, I believe, as indicated by the historic stay by the Supreme Court, went outside the bounds of the Clean Air Act. We do not have Congressional authority to institute a cap and trade scheme. In order to help mitigate the causes of climate change we are moving forward with both the ACE proposal and the SAFE Vehicles proposal and we intend to finalize them both this calendar year.

<u>Clean Power Plan Replacement</u>

149. On August 21, 2018, the EPA released its proposal to repeal the Clean Power Plan. By the EPA's own estimates, this plan would drastically increase carbon and other pollution emissions from power plants as well as cause as many as 1,400 additional premature deaths, 48,000 new cases of asthma, and 21,000 new missed school days each year compared to the Clean Power Plan. In order to justify this new, weaker rule, the EPA altered its cost-benefit analysis methodology to minimize the new rule's projected damages to the environment and public health. This methodology is described in the EPA's regulatory impact analysis

"Regulatory Impact Analysis for the Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Unites; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program."

One way in which the EPA's analysis was altered was to ignore the health effects from direct exposure to sulfur dioxide, nitrogen dioxide, and hazardous air pollutants like mercury and hydrogen chloride. According to the EPA's regulatory impact analysis, the EPA did not include these factors in its proposal to repeal the Clean Power Plan due to "data, resource, and methodological limitations," despite their clear negative health impacts.

Given that the EPA's failure to properly consider these factors clearly violates its mission to protect human health and the environment, as well as its statutory obligation under the Clean Air Act to protect and improve the nation's air quality, please describe your plan, including a timeline, for withdrawing the EPA's proposal to repeal the Clean Power Plan.

I disagree that the EPA has failed to properly consider relevant factors in its proposal to repeal the Clean Power Plan. The EPA has not taken final action on its proposal to repeal the Clean Power Plan. The EPA has no plans at this time to withdraw its proposals to repeal or replace the Clean Power Plan. The proposed Affordable Clean Energy (ACE) rule is projected to significantly reduce emissions, including 2030 reductions of carbon dioxide (12 to 27 million tons), sulfur dioxide (7,000 to 15,000 tons), and nitrogen oxides (8,000 to 15,000 tons). The Clean Power Plan (CPP) was stayed by the Supreme Court and thus was never implemented. EPA separately regulates fine particulate matter and ozone under its National Ambient Air Quality Standards (NAAQS). EPA expects continued reductions in emissions and concentrations of these criteria pollutants. Further information responsive to your questions may be found in the Notice of Proposed Rulemaking (NPRM) for the ACE rule, published at 83 Fed. Reg. 44,746 (Aug. 31, 2018) and in the supporting documents in the docket for this action, EPA-HQ-OAR-2017-0355.

Toxics

150. Elevated and unsafe levels of perfluoroalkyl substances (PFAS) have been found in hundreds of sites and at least one municipal water system in Vermont, and have contaminated public water and other natural resources for an estimated 16 million people nationally.

In June 2018, the Agency for Toxic Substances and Disease Registry (ATSDR) released a draft study concerning the health effects of PFAS, including, but not limited to, effects on the growth, learning, and behavior of children, increased cholesterol levels, and increased risk of cancer. Prior to the study's release, Politico reported that officials from the White House, the Office of Management and Budget, the EPA, and the Department of Defense intervened to delay the release of the study in order to avoid a "public relations nightmare." I joined with several of my Senate colleagues in writing to then-

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Administrator Pruitt to request information on the EPA officials who intervened in order to delay the release of the ATSDR study. He responded by stating that the EPA did not have authority to release the ATSDR study, which is an answer that did not adequately respond to my concerns. Regardless of the EPA's authority to release or not release ATSDR studies, were you aware of any EPA officials making efforts to delay the release of this ATSDR study? If so, please provide all internal documents and communications in your agency's possession regarding any internal deliberations or discussions about this study for the record. If you are confirmed, will you commit to ensuring that the EPA does not engage in any activities which seek to delay the public release of scientific studies and reports?

On June 20, 2018, ATSDR released a draft Toxicological Profile for perfluoroalkyls for public comment. ATSDR released the draft Toxicological Profile after working collaboratively with the EPA, the Food and Drug Administration, the National Institutes of Health (including the National Institute of Environmental Health Sciences), the National Toxicology Program, the U.S. Geological Survey, and the Department of Defense (DoD). The EPA's participation in reviewing the draft profile was a result of a multi-agency collaboration that is typical for many of these cross-cutting chemical issues. These interagency collaborations take time and are intended to facilitate the development and communication of the best available science, not delay it.

Under my leadership, the EPA will continue to ensure that scientific studies and reports, in support of the agency's regulatory programs, are made available to the public upon completion of all appropriate internal reviews, consistent with applicable legal requirements, to ensure the scientific integrity and accuracy of the information presented.

151. The ATSDR study found that minimal risk levels for certain PFAS chemicals in drinking water should be significantly lower than the EPA's lifetime health advisory level of 70 parts per trillion. Based on the levels identified in the ATSDR study, please explain your plan, including a timeline, for updating the EPA lifetime health advisory level to comport with this new science on the effects of PFAS on human health.

ATSDR's June 20, 2018, draft Toxicological Profile for perfluoroalkyls includes Minimal Risk Levels (MRLs) for four PFAS chemicals: Perfluorooctanoic acid (PFOA), Perfluorooctane sulfonic acid (PFOS), Perfluorononanoic acid (PFNA), and Perfluorohexane sulfonic acid (PFHxS). The EPA supports the efforts of other federal partners, including ATSDR, to develop information related to PFAS. The EPA continues to take concrete steps, in cooperation with our federal and state partners, to address PFAS as part of our overall mission to ensure that Americans have access to clean and safe drinking water. The EPA will continue to carefully review the draft ATSDR Toxicological Profile and will consider any information that may inform our approach to PFOA, PFOS, and other PFAS.

The EPA recognizes that other health agencies, like ATSDR, may issue different health-based values for similar chemicals based on their own statutory mandates, purposes and analyses, including more stringent values that may reflect more conservative assumptions. For example, ATSDR's MRLs for PFOA and PFOS differ by an order of magnitude from the toxicity values that were derived by the EPA in development of the EPA's drinking water health advisories (HAs) due to differences in the critical study selected for PFOA and uncertainty factors applied for PFOS.

ATSDR's MRLs and the EPA's HAs are two different tools that are used in different situations. Drinking water HAs provide information on contaminants that can cause human health effects and are known or anticipated to occur in drinking water. They are a concentration in drinking water that is not expected to cause any adverse human health effects over an exposure period (e.g. 1-day, 10-day, lifetime). The EPA's health advisories are non-enforceable and non-regulatory and provide technical information to state agencies and other public health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination. Drinking water HAs are calculated incorporating toxicity (i.e., reference doses or RfDs) and exposure parameters (i.e., drinking water intake, body weight, and other potential sources of exposure).

ATSDR's MRLs are toxicity values that are intended to be used to help public health professionals determine areas and populations potentially at risk for health effects from exposure to a particular chemical. MRLs do not take into account specific exposures like a drinking water HA. MRLs are intended only to serve as a screening tool to help public health professionals decide where to look more closely; they are not intended to indicate a maximum safe exposure level. Drinking water HAs provide non-enforceable technical guidance to state agencies and other public health officials who have the primary responsibility for overseeing drinking water systems. The EPA's HAs for PFOA and PFOS offer a margin of protection for fetuses during pregnancy and breastfed infants as well as for all Americans throughout their life.

The EPA is evaluating PFOA and PFOS under the Safe Drinking Water Act (SDWA) regulatory determination process, which builds on the work the agency completed in the health advisories for PFOA and PFOS and is an important step in the process for considering whether to establish a National Primary Drinking Water Regulation. As a part of the evaluation, the EPA will continue to carefully review the draft ATSDR Toxicological Profile and will consider all newly available scientific information. In addition, the EPA included PFOA and PFOS as priority contaminants on the SDWA Contaminant Candidate List for regulatory consideration. The EPA also collected monitoring data for six PFAS compounds, including PFOA and PFOS, from drinking water systems across the country, from 2013 to 2015, as part of the third Unregulated Contaminant Monitoring Rule.

Under the SDWA, the EPA must consider three criteria when making a determination to regulate a contaminant:

- **The contaminant may have an adverse effect on the health of persons**
- **The contaminant is known to occur or there is a high chance that the contaminant will occur in public water systems often enough and at levels of public health concern**
- **In the sole judgment of the Administrator, regulation of the contaminant presents a meaningful opportunity for health risk reductions for persons served by public water systems**

If the EPA makes a determination to regulate PFOA and PFOS, the SDWA requires that, prior to issuing a drinking water standard, the agency must undertake a number of actions, including developing a health risk reduction and cost analysis, consulting with the National Drinking Water Advisory Council, seeking recommendations from the Science Advisory Board, and publishing a proposed regulation for review and comment. The EPA is committed to performing all mandatory actions under the SDWA as its continues its regulatory evaluation.

152. Several states, including my home state of Vermont, have set health advisories for drinking water containing PFAS chemicals that are significantly more stringent than the EPA's lifetime health advisory level. The most recent update to the Toxic Substances Control Act (TSCA) contained a provision that protects states that had more stringent standards on the books before April 22, 2016 (Sec. 13 State-Federal Relationship, 15 USC § 2617(e)(1)(A)). If confirmed, will you commit to avoiding any actions that would preempt states' ability to enforce health advisory levels for PFAS enacted before April 22, 2016 that are more stringent than the EPA's standards? If you will not make this commitment, please explain why you believe that TSCA prevents states from enforcing more stringent requirements the state had established before April 22, 2016.

The preemption provisions of the Lautenberg Amendments to TSCA contain important directions that address when state actions will be preempted or not. EPA will follow all requirements of the statute with regard to preemption.

153. According to the EPA website, the EPA expected to release a PFAS management plan by the Fall of 2018. During this hearing, you stated that the release of the plan has been further delayed by the current partial government shutdown. However, the plan was clearly also delayed by other factors given that the partial government shutdown did not begin until late December. Please describe all the factors, beside the current partial government shutdown, that have caused the EPA to fall behind schedule in developing this plan to address the presence of toxic PFAS chemicals in communities throughout the country.

The EPA intends to release a PFAS action plan as soon as feasible following completion of the interagency review process. Development of the plan took careful deliberation and extensive coordination with each EPA national program office and the regional offices, including reviewing and assessing the over 100,000 comments received in response to the extensive stakeholder outreach the EPA performed following the

National Leadership Summit the EPA hosted in May 2018. While developing the PFAS action plan, the EPA decided to move forward with several individual actions to ensure priority work continued even though the plan was in development. These include developing and releasing for public comment draft toxicity values for GenX and PFBS, development of recommendations for addressing contaminated groundwater, and other priority actions. The EPA also continued to collaborate with our federal, state and local partners, including coordinating development of the GenX/PFBS toxicity values and performing interagency review on the recommendations for addressing PFOA and PFOS in groundwater.

154. Given that the EPA's current budget to manage PFAS is clearly insufficient to carry out the work needed to craft the PFAS management plan, please describe your plan to increase the EPA's FY2020 budget request relative to FY2019 to ensure that it can release the PFAS management plan a timely manner.

The development of a comprehensive PFAS management strategy is a complex undertaking that required significant engagement with the states, the public and other entities to properly develop. Using what we learned from a National Leadership Summit last May, community engagements, input from our federal partners, and public comments submitted to the EPA through the late fall of 2018, the agency is developing a PFAS action plan. That plan is currently undergoing interagency review. Previous funding levels have not delayed the development or implementation of the PFAS action plan. The EPA intends to release the plan as soon as feasible following completion of the interagency review process and once Congress provides FY19 appropriations for the agency.

155. In April 2017, the EPA decided against continuing the work of the previous administration to ban the pesticide chlorpyrifos, which poisons farm workers, children and rural communities. Chlorpyrifos is toxic and can cause neurodevelopmental harms in children and prenatal exposure can cause lower birth weight, reduced IQ, loss of working memory, attention disorders, and delayed motor development. No amount of it is safe in our food or drinking water. Based on the EPA's mission to protect human health and the environment, please outline the EPA's plan, including a timeline, to establish a ban on chlorpyrifos.

As required by FIFRA, EPA is currently evaluating chlorpyrifos under registration review (reevaluation). EPA has prioritized the chlorpyrifos reevaluation; it is one of nearly 725 pesticide active ingredients that EPA must review by October 1, 2022. EPA scientists are evaluating studies that are now available to EPA on chlorpyrifos in the new risk assessment prepared by the California Department of Pesticide Regulation in August 2018. EPA is also continuing a dialogue with Columbia University to obtain review of the raw data underlying several publications from an epidemiology study conducted by the Columbia Center for Children's Environmental Health (CCCEH). Once all of the relevant studies are assessed and the evaluated, and after considering

public comments, the agency will be in a position to make a final registration review decision for chlorpyrifos.

Additionally, because chlorpyrifos is an organophosphate pesticide, consistent with the FFDCA, EPA must also update the organophosphate cumulative assessment completed in 2006. In order to revise this cumulative assessment, the agency must also complete the underlying single-chemical risk assessments for all of the organophosphate insecticides. Before these assessments can be completed, new studies to support physiologically-based pharmacokinetic (PBPK) modeling need to be received and evaluated. Some of these studies were received in 2018; we anticipate receiving others during 2019. Based upon current resources and study submission schedules, we anticipate that a draft revised update to the organophosphate cumulative risk assessment will likely be issued for public comment in the late 2020 timeframe. Once all of these assessments are completed, and after considering public comments, the agency will be in a position to make a final registration review decision for chlorpyrifos.

On September 24, 2018, EPA also sought a rehearing *en banc* and panel rehearing of an August 2018 Ninth Circuit decision directing EPA to revoke all tolerances and cancel all registrations for chlorpyrifos. EPA is awaiting a response from the court.

Native Rights

156. The Fourth National Climate Assessment projects that Indigenous peoples will suffer some of the worst impacts of climate change due to their dependence on natural resources for their livelihoods and economies. As our natural resources dwindle, many Indigenous peoples may be forced to relocate, risking their cultural and community continuity. Please describe your plan for meeting Indigenous peoples' economic and environmental needs, particularly as they pertain to the preservation of natural resources and tribal treaty rights.

EPA's 1984 Indian Policy is the foundation for EPA's tribal program, which states that while working government to government with tribes, EPA will work to increase tribal governments' capacity to develop environmental programs, consult with tribes and consider their interests and concerns when carrying out our responsibilities in Indian country, and ensure that environmental programs are implemented in Indian country.

This strong foundation continues to guide EPA's work today. I will ensure that the EPA continues its work in protecting human health and the environment in Indian country. This includes ongoing tribal consultation and coordination, management and administration of funding and technical assistance programs, such as the Indian Environmental General Assistance Program, and continued participation with the federal Infrastructure Task Force to collaborate with tribes to seek efficiencies in federal actions around infrastructure, provide funding for infrastructure and promote sustainable practices.

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In addition, I will conduct annual meetings with the National Tribal Caucus and other EPA Senior Leadership, collectively the National Tribal Operations Committee, to discuss tribal priorities and identify and address tribal environmental and human health concerns.

157. The EPA's "Policy on Consultation and Coordination with Indian Tribes: Guidance for Discussing Tribal Treaty Rights" requires the EPA to respect tribal treaty rights, which in part means consulting with any tribes which may be impacted by the actions of the federal government.

    Please describe the specific actions you have taken, as both EPA Deputy Administrator and Acting EPA Administrator, to ensure that tribes have been consulted and that their input is reflected in the actions taken by the EPA.

    Please list the individuals and their affiliation with whom you have met or consulted during your time as both EPA Deputy Administrator and Acting EPA Administrator regarding tribal treaty rights.

    If confirmed, will you commit to consulting with tribes regarding all EPA actions which may impact tribal treaty rights, lands, culture, and natural resources? If you will not make this commitment, why are you willing to violate the EPA's policy on tribal treaty rights?

EPA recognizes its responsibility to consult with federally recognized tribes and was one of the first federal agencies to issue a policy on tribal consultation pursuant to Presidential Executive Order 13175. The EPA Policy on Consultation and Coordination with Indian Tribes (Consultation Policy) establishes clear EPA standards for the consultation process, including defining when and how consultation takes place, and establishes management oversight and reporting to ensure accountability and transparency. I will work closely with the OITA Assistant Administrator as the Designated Consultation Official to ensure EPA adheres to the Consultation Policy. Assistant Administrator McIntosh is strongly committed to tribal consultation, and additionally has committed to working closely and meeting regularly with the National Tribal Caucus, meeting at least annually with regional tribal representatives and participating in key tribal engagement opportunities, and strengthening tribal representation at EPA by hiring a member of a federally recognized tribe to be the Director of the American Indian Environmental Office within the Office of International and Tribal Affairs.

In addition, EPA recognizes the importance of upholding tribal treaty rights and its obligation to do so. EPA issued Tribal Treaty Rights Guidance in 2016 to its staff on how to discuss tribal treaty rights under the EPA Consultation Policy. The Guidance outlines affirmative steps for EPA tribal consultations in situations where tribal treaty rights or treaty-protected resources may be affected by an EPA action. During the implementation of this Guidance, EPA will subsequently consider all relevant information obtained to help ensure that EPA's actions do not conflict with treaty

rights, and to help ensure that EPA is fully informed when it seeks to implement its programs and protect treaty rights and resources when it has discretion to do so. To ensure all EPA staff are aware of our consultation roles and responsibilities, among other aspects of our partnership with tribal governments, I have issued mandatory training to all EPA staff on Working Effectively with Tribal Governments.

I have also met directly with tribal leadership and representatives, including:

In July 2018, I met with the National Tribal Caucus Executive Committee (Paula Britton, NTC Chair, Cahto Tribe; Gerald Wagner, NTC Vice Chair, Blackfeet Tribe; and Scott Clow, NTC Secretary, Ute Mountain Tribe), to discuss several areas of concern, including tribal consultation and communication.

In September 2018, I visited EPA Region 8 and again met with Mr. Wagner and the leadership of the Blackfeet Tribe, including Timothy Davis, Chairman, and Iliff "Scott" Taylor, Vice-Chairman and other tribal representatives. During this visit, I also met with the Chairman Ron Trahan and Vice-Chairman Leonard Gray and other tribal representatives of the Confederated Salish & Kootenai Tribes on the Flathead Reservation.

In October 2018, I met with a delegation of Washington tribal leaders, including Brian Cladoosby, Chairman, Swinomish Indian Tribal Community; Nate Tyler, Chairman, Makah Tribe; Shawn Yanity, Chairman, Stillaguamish Tribe; and Russell Hepfer, Vice-Chairman, Lower Elwha Klallam Tribe, as well as Lorraine Loomis, Chair of the Northwest Indian Fisheries Commission and Justin Parker, Executive Director of the Northwest Treaty Tribes.

Also, in October 2018, I met with a group of concerned citizens at the Weir Salmon Traps to discuss the CA Water Quality Control Plan. Mr. John Mills, a member of the Me-Wuk Indians, shared his concerns in consultation of the project.

A January meeting of the National Tribal Operations Committee, including tribal representatives and EPA Senior Leadership will be reschedule to February, depending on the current government shutdown. I plan to co-chair the NTOC meeting when it is scheduled, with robust participation by EPA Assistant Administrators and Regional Administrators.

Clean Water Rule

158. On December 11, 2018, the EPA proposed a revised definition to "Waters of the United States," which would effectively repeal what is popularly known as the "Clean Water Rule." Given that the EPA's proposal will put almost 117 million Americans' water supply at risk, which runs counter to the EPA's mission to protect human health and the environment, please provide a plan, including a timeline, for withdrawing the EPA's proposed repeal of the Clean Water Rule.

The EPA and the Department of the Army are currently engaged in a multi-step rulemaking to propose a repeal of the 2015 Clean Water Rule and replace it with a revised definition for "waters of the United States," consistent with Executive Order 13778, "Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the 'Waters of the United States Rule,'" signed February 28, 2017. The EPA and the Army are currently reviewing over 750,000 comments received in response to the proposed repeal of the 2015 Clean Water Rule and are awaiting publication of the new proposed definition in the Federal Register. The EPA and the Army will consider feedback received in response to the public comment process for the rulemakings as the agencies determine next steps.

Senator Shelby:

159. The Consolidated Appropriations Act of 2018 included language directing the Secretaries of Energy and Agriculture and the Administrator of the Environmental Protection Agency to establish clear and simple policies that reflect the carbon-neutrality of forest bioenergy and recognize biomass as a renewable energy source provided the use of forest biomass does not cause the conversion of forests to non-forest use. I appreciate the EPA issuing guidance in April 2018 stating that future EPA regulatory actions for energy production from stationary sources will recognize biomass from managed forests as carbon neutral. I also appreciate the tri-agency statement in October 2018 affirming these principles.

Mr. Wheeler, would please provide an update on the EPA's progress towards implementing a regulation on carbon neutrality of biomass?

EPA staff have made an in-depth assessment of the various options available for moving forward, including the potential for issuing guidance under the Prevention of Significant Deterioration (PSD) permitting program that would, on a site-specific basis where appropriate, recognize the use of biomass feedstocks as Best Available Control Technology (BACT). Longer-term, EPA is assessing the value of undertaking a rulemaking in this area. If undertaken, EPA estimates that a proposed rule could be developed by the end of this year.

Senator Van Hollen:

160. Last week on January 10th, Energy and Environment Daily reported on some of the trickle down impacts of the shutdown on the functions of the EPA. In that article, Lisa Feldt of the Chesapeake Bay Foundation noted her concerns with the looming deadline in April of this year for the next step in Chesapeake Bay TMDL implementation—the third and final round of watershed implementation plans. Do you expect the EPA to be able to meet this critical April deadline for the Chesapeake Bay if the shutdown continues?

The EPA is fully committed to the Chesapeake Bay program and will be prepared to review the watershed implementation plans to be submitted by the Chesapeake Bay jurisdictions in April.

161. Last week on January 9th, the New York Times reported that the EPA has furloughed most of its roughly 600 pollution inspectors and other workers who monitor compliance with environmental laws. These staff are responsible for detecting violations that endanger human health.

These pollution inspections halted on December 24, 2018.

Eric Schaeffer, a Maryland resident and former Director of EPA enforcement, has said that the shutdown from Dec 16, 1995 to Jan 6, 1996 lead to one of the worst years ever at the EPA in terms of numbers of inspection and enforcement; and that it bogged down EPA inspections for months—not just up until the government reopened.

If the shutdown ends the day you submit your answers to these questions for the record, what impact do you expect the shutdown to have on the number of inspections and enforcement actions the EPA is able to conduct compared to a non-shutdown scenario? What will be the impact if the shutdown continues for another 30 days after the date you submit your answers to these questions for the record?

Few EPA inspections would be scheduled for January because winter weather can impact travel for our inspectors, outdoor facility operations, or the functioning of our monitoring equipment. Accordingly, disruption of any inspections that may have been planned for the month of January is not likely to significantly impact the overall number of inspections in FY2019. However, the shutdown affected planning for future inspections. Now that the shutdown is over we will work to estimate the impact of the shutdown on the number of inspections in FY2019. With respect to enforcement actions, during the shutdown we continued actions that were subject to judicial deadlines but did not initiate new actions unless it was to address an imminent threat to life or property. Thus, the shutdown may reduce the number of new cases opened in FY 2019.

162. A New York Times article from December 2017 found that at that time, over 700 employees had left the EPA since the beginning of the Trump Administration as they are disheartened by the Agency's direction. Of the employees who had quit, retired or taken a buyout package, more than 200 are scientists. An additional 96 are environmental protection specialists, a broad category that includes scientists as well as others experienced in investigating and analyzing pollution levels. Most of the employees who have left are not being replaced. Agency staff said they believed the Trump administration was purposely draining the EPA of expertise and morale.

What is the impact of the drain of scientists out of the EPA in terms of the Agency's long-term abilities to develop and use the best available science? What will the impact of this loss of scientific expertise be on the Agency's ability to protect public health?

The EPA is committed to ensuring that we have the right people in the right positions to accomplish the mission of the agency today and into the future. I am troubled by the assertion that the Administration is seeking to reduce EPA's expertise and disagree completely with that assessment.

Annual attrition of around 5%, or 700 positions is typical and the number of scientists that made up the attrition is not out of proportion to the overall numbers. EPA, like many other federal agencies, is facing the reality of a large percentage of our workforce being retirement eligible. To ensure we have a strong workforce with the correct skillsets, EPA is working on succession planning and utilizing all available hiring authorities, such as Title 42, to attract and retain important scientific expertise.

How do you plan—if confirmed as EPA Administrator—to make your employees feel valued and boost the alarmingly low morale at your Agency? In which areas, if any, will the Agency prioritize hiring of new employees?

Since being named Acting Administrator, and even before that, as the Deputy Administrator, I have made employee engagement a top priority. I have visited each of the 10 EPA regional offices, making it clear that I value and respect the work of the career workforce. Similarly, I have engaged with staff at EPA headquarters, routinely engaging with both political and career staff on important policy matters. On the Acting Administrator's web page: https://www.epa.gov/aboutepa/andrew-wheeler-messages-epa-employees.

I have posted key all employee messages regarding transparency and maintaining the public trust, signaling the high priority I place on these issues. We aim to post my daily calendar on the next day so that staff are fully aware of my internal meetings and outward facing events. At key announcements – e.g., WOTUS, the Federal Lead Action Plan, the Chrysler/Fiat enforcement settlement announcement – I make it a priority to publicly recognize and thank the career employees who are instrumental to the Agency's success.

During the government shutdown, I reached out to all employees via email as well as a phone message, letting them know how much they are missed and how important they and their work is to the Agency. We have a welcome back plan ready for when employees return to work, again emphasizing that they were deeply missed and that I look forward to resuming our day to day work together.

Finally, I have directed our Chief Operating Officer, Henry Darwin, to embark on a robust effort aimed at enhancing employee engagement and leading to a serious uptick in our numbers for the next annual Federal Employee Viewpoint Survey (FEVS) administered by the Office of Personnel Management. I have also asked our Engagement Community of Practice to evaluate our FEVS results around challenges and opportunities, and to collaborate with our regional and program offices to identify actions we can take to make EPA a better place to work.

EPA announced a plan to reorganize the Agency, which includes a plan to eliminate the Agency's science adviser office and merge it into a division in the Office of Research and Development, which EPA claims is a move to "streamline" the Agency. Why would this move not diminish the role of science in decision-making at the EPA?

EPA is not eliminating the office of the Science Advisor. EPA's science advisor has traditionally been the AA for ORD and that practice has not changed. We are only combining the Science Advisor's office with another office performing similar functions to create an Office of Science Advisor, Coordination and Policy. The current Office of the Science Advisor reports to the Assistant Administrator for Research and Development and the new office would do the same. This new office will strengthen coordination of science within ORD and the Agency.

163. As you know, under the *Clean Air Act*, both the EPA and the state of California have authority to regulate greenhouse gas emissions from the tailpipe. Under Section 177 of this act, states can choose, as twelve have done to date, to adopt California's standards in lieu of federal requirements.

Maryland is one of 12 states that follow California's lead on their 2022-2025 fuel economy standards.

The proposed rule that EPA released last year challenges the authority of states like Maryland to regulate emissions from vehicles in order to force a nationwide rollback of fuel economy and vehicle emission standards. This proposed revocation of California and the 12 states' authority is opposed by Maryland's Governor Larry Hogan. On October 26, 2018, Maryland Secretary for the Department of the Environment Ben Grumbles wrote you a letter in which he stated, "Maryland supports the principals of cooperative federalism and urges the agencies not to limit California's authority to adopt or enforce motor vehicle emissions standards or any other state's ability to adopt California's standards."

Can you commit today not to finalize clean car standards that attack state leadership on clean cars, either by revoking California's waiver to enforce its existing 2022-25 standards, or asserting that the Energy Policy and Conservation Act preempts state clean car standards?

EPA and the National Highway Traffic Safety Administration (NHTSA) have jointly proposed a rulemaking for greenhouse gas (GHG) emission and fuel economy standards, respectively, affecting light-duty vehicles for the 2021 through 2026 model years. EPA also proposed to revoke the waiver of preemption currently in place which allowed California (and a number of other states that have adopted the California standards) to adopt their own GHG standards and the zero-emission vehicle program. The proposed legal basis for withdrawing the California Waiver is described in the notice of proposed rulemaking and accompanying documents, available at: Docket No. EPA-HQ-OAR-2018-0283. EPA received a wide range of public comments on the proposal and is carefully reviewing those comments. I am committed to working with California and Section 177 states as EPA and NHTSA determine a path forward consistent with the Clean Air Act and the goal of one national program.

164. Environmental enforcement numbers have decreased since the end of the Obama Administration. One reason for this is that no enforcement engineer or officer has been replaced in any of the 10 Regions.

How do you plan to ensure EPA enforcement is taking place while there are very few inspectors, enforcement officers and lawyers in place to bring enforcement cases in the regional offices? How will you work to address gaps in enforcement staff and initiate the hiring process?

Many environmental enforcement numbers are heavily impacted by large cases. For example, the $305 million civil penalty in the recently settled Fiat Chrysler Automobiles (FCA) case was larger than all the administrative and civil judicial penalties imposed by EPA in FY2009, FY2010, FY2011, FY2012, FY2014, FY2015, and FY2018.

Before Congress enacted the FY 2018 continuing resolution, EPA was under a hiring freeze. When Congress provided funding and an FTE ceiling, that freeze was lifted and OECA and the regional offices are allocating the enforcement FTE in a strategic manner to address the greatest needs. OECA has already hired or is in the process of hiring criminal investigators, attorneys, chemists, analysts, and an engineer. EPA continues to ensure compliance with federal environmental laws by helping to increase state capacity, providing compliance assistance, expanding EPA's self-audit program, using data analytics to target inspections where noncompliance is likely to be found, focusing its enforcement resources on the most impactful cases, and bringing criminal charges against bad actors.

165. Can you walk through the scientific method that, if confirmed, you would want the EPA to use for risk evaluations under TSCA to determine if chemicals have an unreasonable risk and should be regulated? My understanding is that EPA is currently working on draft risk evaluations for 10 chemicals including asbestos and 1-4 Dioxane.

Will EPA be using the Systematic Review framework for TSCA--even though scientists warn that it favors industry science? Will the EPA review include all uses, including reasonably foreseeable and legacy uses, in both new and existing chemical risk evaluations?

The Lautenberg Act amendments to TSCA require EPA to use information in a manner consistent with the best available science and base decisions on the weight of the scientific evidence. EPA is using a structured systematic review process of identifying, evaluating, and integrating evidence in the risk evaluations. The goal of systematic review, including EPA's framework, is to ensure that the EPA review of the science is objective, consistent, and transparent.

EPA will continue to review all conditions of use consistent with the TSCA requirements for new and existing chemical evaluations.

EPA considers all conditions of use, including reasonably foreseen uses (regardless of whether they are identified by the submitter), when conducting a new chemical review. The Lautenberg Act amendments to TSCA required that conditions of use means the circumstances, as determined by the Administrator, under which a chemical substance is intended, known, or reasonably foreseen to be manufactured, processed, distributed in commerce, used, or disposed of.

166. Regarding the MATS rule, in determining that it is no longer "appropriate and necessary" to require power plants to reduce their mercury and air toxic emissions, EPA has decided to base this decision only on some of the quantifiable benefits and all of the costs to industry. The costs EPA uses is also woefully out of date, about two times higher than actual costs. It seems to me that EPA is breaking the "arbitrary and capricious" test by ignoring the co-benefits and other benefits the agency cannot quantify. Under what legal basis, did EPA decide to ignore co-benefits and benefits like reducing birth defects and cancer rates when determining "appropriate and necessary"?

EPA has not proposed to remove or delist electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind or weaken the emission standards to which those units are currently subject. The basis for EPA's proposed Reconsideration of the 2016 Supplemental Finding and Residual Risk and Technology Review are provided in the notice of proposed rulemaking (NPRM) signed on December 27, 2018, and in the supporting documents which will be available in Docket No. EPA-HQ-OAR-2018-0794. Information responsive to your questions may be found in those documents.

167. As most people know, mercury is a neurotoxin that effects the most vulnerable, children in the womb. Other air toxics like formaldehyde, arsenic and beryllium have long been known to cause cancer. Since you have determined that it is not "appropriate and necessary" to reduce our nation's largest sources of mercury and air toxics through its MATS proposal, does that mean you believe there is a safe level of mercury exposure for developing infants? If so, what are those levels? Is there a safe level of exposing children to carcinogens? If so, what are those levels?

EPA has not proposed to remove or delist electric generating units from the list of source categories subject to regulation under Section 112, nor proposed to rescind or weaken the emission standards to which those units are currently subject. Further, I would direct your attention to the NPRM signed on December 27, 2018, and the supporting documents contained in the rulemaking docket, which provide an explanation of the EPA's position on the matters you raise and which may have information responsive to your questions.

Senator Whitehouse:

168. When we met in my office on January 15, you told me that your proposed rule to freeze the fuel economy and greenhouse gas (GHG) emissions standards for cars and light trucks would actually result in less carbon pollution in certain years than under the existing standards. You repeated this claim at your confirmation hearing.

> However, according to your own rule, GHG emissions would rise under your proposal compared to the existing standards. This predicted increase in GHG emissions is discussed on Federal Register pages 43326 through 43330 of your proposed rule. Please cite to me any support in EPA's proposal for your statements that EPA's proposal would result in reduced GHG emissions compared to the existing standards. Note: please do not tell me what your experts may have told you; I am asking you to provide references from EPA's proposed rule that support your claim that EPA's proposal would reduce GHG emissions compared to the existing standards.

The proposed Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule and its accompanying documents evaluate the potential impacts under a range of alternatives. As I clarified during the hearing, President Obama's approach to setting light duty vehicle standards focused exclusively on energy efficiency and carbon dioxide reductions while the SAFE Vehicles Rule would achieve multiple policy goals by locking in greenhouse gas emissions reductions, protecting lives, and getting older vehicles off the road. The preliminary regulatory impact analysis, for example, evaluated potential effects for model years through 2029 for greenhouse gases, criteria pollutants (including carbon monoxide, volatile organic compounds, nitrogen oxides, sulfur dioxide, and particulate matter), fuel consumption, vehicle miles traveled, and fatalities. Chapter 4 and 5 of NHTSA's draft Environmental Impact Statement also evaluated emissions changes, including for greenhouse gases, carbon monoxide, nitrogen oxide, volatile

organic compounds, particulate matter, and sulfur dioxide, for a range of alternatives. The draft EIS found that directions and magnitudes of changes in emissions were not consistent across all pollutants due to the complex interactions between emission rates, technologies, increases in vehicle miles traveled, and other factors. As outlined in the preamble to the proposed rule, decisions about the inclusion of certain compliance flexibilities could result in less stringent standards and trade-offs with improved vehicle performance. EPA and NHTSA sought public comment on a wide range of options, including related to the current compliance credit system and options for curtailing, reforming or expanding it. More information is available at Docket No. EPA-HQ-OAR-2018-0283.

169. You also told me in our meeting that EPA's proposed rule to replace the Clean Power Plan (CPP) would result in almost exactly the same reduction in carbon pollution as the CPP. You repeated this claim at your confirmation hearing.

> However, according EPA's proposed rule as printed in the Federal Register , GHG emissions would be higher under your proposal than under the CPP. This predicted increase in GHG emissions is discussed on page 44784.
> Please cite to me any support in EPA's proposal for your statements that your proposal would result essentially the same GHG emissions reductions as the CPP. Note: please do not tell me what your experts may have told you; I am asking you to provide me references from EPA's proposed rule that support your claim that EPA's proposal would result in the same GHG emissions reductions as the CPP.

EPA projects that, compared to a no Clean Power Plan (CPP) scenario, the Affordable Clean Energy (ACE) rule will reduce carbon dioxide (CO2) emissions in 2025 by between 13 and 30 million short tons. Illustrative scenarios suggest that when states have fully implemented the ACE rule, U.S. power sector CO2 emissions could be around 34% below 2005 levels. In the final CPP, EPA projected that that rule would result in U.S. power sector CO2 emissions of 32 percent below 2005 levels. CO2 emissions in the power sector have steadily declined in recent years due to a range of factors including: market forces, technology improvements, regulatory and policy changes. As a result, the industry has increased the use of natural gas and renewable energy sources. These trends have resulted in CO2 emission reductions even as the U.S. has sustained economic growth and job gains across the economy—and this has all happened without the CPP ever going into effect, due to it's being stayed by the Supreme Court. The ACE rule will continue this trend. Further information responsive to your questions may be found in the Notice of Proposed Rulemaking (NPRM) for the ACE rule, published at 83 Fed. Reg. 44,746 (Aug. 31, 2018) and in the supporting documents in the docket for this action, EPA-HQ-OAR-2017-0355.

170. How many meetings with Trump administration officials for Bob Murray and/or Murray Energy did you arrange, attempt to arrange, and/or attend?

To the best of my knowledge and memory (I no longer have access to my calendar from my former firm) I arranged and attended three meetings with Trump Administration officials on behalf of Murray Energy.

171. Please list, with date, time, and people present (as applicable) every meeting with the Trump administration you arranged, attempt to arrange, and/or attended with or on behalf of Bob Murray and/or Murray Energy? Please also provide the time, date, and people present for any preparation sessions for such meeting(s).

The first two meetings I arranged/attended were held on March 29, 2017. The first was with Secretary Perry and several of his staff. The second meeting was with the NEC energy advisor. In addition to myself, attendees included Mike Carey and Robert Murray, both with Murray Energy. The only preparatory sessions would have been in the morning, the same day as the meetings, and would have only included Mr. Murray, Mr. Carey, and myself. Sometime in April, I arranged and attended a meeting with the NEC labor advisor. The other attendees were Mike Carey and Robert Murray.

172. At how many of these meetings was the Murray "action plan" discussed?

The purpose of the meetings was not to discuss the Murray Action Plan. The first two meetings were to discuss potential assistance from the Department of Energy to help the coal-fired utility sector. Mr. Murray gave Secretary Perry a copy of his plan at the beginning of the meetings as an FYI. The topic of the meeting was the DOE assistance which, in my understanding, is not covered by the action plan. The third meeting discussed specific labor issues.

After I joined the Agency in April 2018, I was invited to a meeting at DOE to discuss the potential use of section 202 of the Energy Power Act to assist the coal-fired utility sector. Since I considered this topic to be a logical outgrowth of my March 29, 2017 meeting, I recused myself from the issue and amended my ethics agreement to reflect the recusal.

173. You told me at your first confirmation hearing on Nov. 8, 2017 that you didn't remember where you saw the Murray "action plan" and you didn't remember the context in which it was discussed. Do you stand by that answer today? If not, please correct the record.

I stand by my answer. I recommended to all my clients that they draft "action plans" or "wish lists" for the incoming Administration. My former firm did the same thing at the beginning of the Obama Administration and I am told that they did the same thing at the beginning of the Bush Administration. I further recommended that my clients

deliver their recommendations on their own letterhead. We supplied contact information for both Presidential campaigns and transition teams as well as the contact information for the incoming Trump officials. In some cases, we assisted clients in developing their lists, in other cases the clients did it on their own. Murray Energy is a highly sophisticated corporation; they developed their list on their own and took it upon themselves to deliver it to high-ranking officials, which I believe to be more impactful.

174. EPA announced that this June it will finalize amendments to the 2015 Coal Ash Rule, which incorporate elements of EPA's March 2018 proposal to weaken the protective standards of the rule, including eliminating the rule's nationwide cleanup standards. In March 2017, you met with Secretary Perry to discuss the Murray action plan which, among other things, proposed a complete suspension of the 2015 coal ash rule. The plan was accompanied, by six draft Executive Orders for President Trump that would further rescind coal safeguards. One Executive Order directed immediate suspension of the "operation and implementation" of the Coal Ash Rule, directed EPA to attempt to stop ongoing litigation against the agency concerning the rule, and instruct the EPA to amend the rule to prohibit citizen suits to enforce the rule.

    a. Are you familiar with this Executive Order? ("Presidential Executive Order on Restoring the Rule of Law, Federalism, Economic Growth, and Reducing Regulatory Costs by Reviewing the Final Rule on Disposal of Coal Combustion Residuals from Electric Utilities (the "CCR Rule"), Published on April 17, 2015 By the United States Environmental Protection Agency, 80 Fed. Reg. 21302 (2015)")

        Through the press, I am familiar with the draft Murray Executive Orders.

    b. Did you write or review this Executive Order?

        I did not write or review the draft Executive Order. I do not remember any of the draft orders being attached to the action plan that I saw.

    c. If so, do you believe that you should recuse yourself from further review and oversight over EPA's efforts to weaken the Coal Ash Rule?

        Does not apply.

175. The following questions relate to federal ethics laws and regulations:

    a. President Trump promised to end corruption in Washington. Would you agree that applying and enforcing federal ethics laws and regulations, and the Trump "Ethics Pledge," are important tools to do that?

        Yes, I would.

b. This is the second time you've come before the Senate for advice and consent. Would it be fair to say that by now you are personally familiar with federal ethics requirements?

I received ethics training from EPA career ethics officials upon joining the Agency, and I am personally familiar with the many ethics requirements. If questions regarding ethics issues arise, I routinely seek and abide by the advice of career ethics officials.

c. Are you aware that federal regulations and the Trump "Ethics Pledge" prohibit political appointees from working on particular matters on which they previously represented clients as well as from meeting with former clients?

I am aware that federal ethics regulations do provide certain restrictions and the Trump Ethics Pledge provides additional restrictions. I signed a Recusal Statement in May of 2018, shortly after my confirmation as Deputy Administrator and have abided by checking with career ethics officials with any questions.

d. If you learned that an EPA employee violated federal ethics regulations or the Trump "Ethics Pledge," would you take this matter seriously?

Yes, I do take the ethics issues seriously.

e. Do you promise to take all steps within your power to ensure that EPA employees abide by all applicable ethics requirements? Does that include disciplining employees who violate those requirements as appropriate?

I will work to make sure EPA employees abide by all applicable ethics requirements. In fact, in my first month as the Acting Administrator I convened an all-hands political staff briefing on ethics issues by EPA career ethics professionals and White House Counsel. Breaches of ethics obligations could include discipline where appropriate.

176. Did you ever bundle, solicit, or gather donations for any 501(c)(4), 527, political action committee, or any other outside spending group? If so, list the organizations by name, the dates during which you engaged in this activity, and the approximate amounts you raised.

I have not bundled, solicited, or gathered donations for any 501(c)(4), 527, political action committee, or other outside spending groups. I have cohosted fundraisers for candidates for election or re-election to Congress, so my name has appeared on invitations for events. Opensecrets.org listed me as a bundler for Mitt Romney's 2012 Presidential campaign. I am not sure what criteria they used to determine that title but I did invite a number of people who attended a few of his events. My name appeared on

invitations for membership for both the Washington Coal Club and the National Energy Resource Organization when I was an officer in both organizations. Neither of these organizations would be considered outside spending groups, although both are non-profits.

177. Do you commit to provide all information responsive to the previous question to EPA ethics officials so they can assess whether that activity raises conflicts of interest or an appearance that you cannot conduct your duties impartially?

I believe I have already provided all of the relevant information to the EPA career ethics officials. If there is additional information they need, I would be happy to comply.

178. You and I have discussed the serious economic risks of climate change the last two times we have met. I have provided you with numerous reports and articles detailing these risks.

a. The first of these economic risks is the risk of a coastal real estate crash. This is what Freddie Mac, the federal home mortgage backer, has to say about climate risk:

"[R]ising sea levels and spreading flood plains nonetheless appear likely to destroy billions of dollars in property and to displace millions of people. The economic losses and social disruption may happen gradually, but they are likely to be greater in total than those experienced in the housing crisis and Great Recession."

This is what the Union of Concerned Scientists has to say:
"In the coming decades, the consequences of rising seas will strain many coastal real estate markets – abruptly or gradually, but some eventually to the point of collapse – with potential reverberations throughout the national economy."

This is what the insurance industry trade magazine *Risk & Insurance* has to say:

"These bellwether locations [Miami, Atlantic City, and Norfolk] signify a growing and alarming threat; that continually rising seas will damage coastal residential and commercial property values to the point that property owners will flee those markets in droves, thus precipitating a mortgage value collapse that could equal or exceed the mortgage crisis that rocked the global economy in 2008."
Freddie Mac estimates that between $238 billion and $507 billion worth of real estate will be below sea level by 2100, and UCS estimates that nearly 2.5 million residential and commercial properties worth $1.07 trillion will be at risk of chronic flooding by 2100. The First Street Foundation studied the impact of rising seas and increased flooding on real estate in the southeast, and found that

coastal real estate in the southeast has already lost $7.4 billion in value since 2005 because of sea level rise.
Many of the rollbacks you've proposed since assuming the helm at EPA – freezing automobile fuel economy and greenhouse gas emissions standards, replacing the Clean Power Plan, weakening methane leak inspection and repair standards, weakening carbon pollution emission standards for new power plants – would all result in increased carbon pollution compared to the regulatory regimes they are designed to replace.
Did you consider the potential for a coastal property real estate crash and the associated economic costs when considering these proposals? If so, please cite to me where in these proposed rules or in the accompanying regulatory impact analysis this is discussed. If not, why did you not consider this serious economic risk when designing these proposals?

b. The second of these economic risks is the risk of a carbon bubble. This is what Mark Carney, the Governor of the Bank of England has to say:
"The exposure of UK investors, including insurance companies, to [stranded assets] is potentially huge."
This is what the head of insurance supervision at the Bank of England has to say:
"As the world increasingly limits carbon emissions, and moves to alternative energy sources, investments in fossil fuels and related technologies [...] may take a huge hit."
This is what academics at University College London have written:
"Our results suggest that, globally, a third of oil reserves, half of gas reserves and over 80 per cent of current coal reserves should remain unused from 2010 to 2050 in order to meet the target of 2 degrees Celsius."
This is what academics at Cambridge have written:
"Our conclusions support the existence of a carbon bubble that, if not deflated early, could lead to a discounted global wealth loss of US$1 – 4 trillion, a loss comparable to the 2008 financial crisis."
Many of the rollbacks you've proposed since assuming the helm at EPA – freezing automobile fuel economy and greenhouse gas emissions standards, replacing the Clean Power Plan, weakening methane leak inspection and repair standards, weakening carbon pollution emission standards for new power plants – would all result in increased carbon pollution compared to the regulatory regimes they are designed to replace.
Did you consider the potential for a carbon bubble and the associated economic costs when considering these proposals? If so, please cite to me where in these proposed rules or in the accompanying regulatory impact analysis this is discussed. If not, why did you not consider this serious economic risk when designing these proposals?

The record for each of the proposed actions cited in your question is available for review. At the same time, I will note that EPA's regulatory and de-regulatory actions respecting greenhouse gas emissions have incorporated these potential impacts in decision making through the use of the "social cost of carbon," in accordance with

Executive Order 13783 on Promoting Energy Independence and Economic Growth.

179. Are there any circumstances under which written EPA protocols for selecting members of EPA's various science advisory boards should be departed from? If so, please describe the circumstances that would justify departing from established member selection protocols.

At this time, I cannot envision any circumstances under which EPA's written protocols would not be followed when selecting members for its various scientific advisory boards.

180. Dr. Nancy Beck is currently overseeing the implementation of the reformed TSCA legislation. Dr. Beck has developed her own systematic review process for assessing the quality of the scientific studies upon which it will rely to determine the safety of the chemicals it reviews. The first chemical to undergo a risk evaluation under the reformed TSCA is Pigment Violet 29 (PV29). In its draft risk assessment, EPA concluded that PV29 is safe.

EPA's draft risk assessment's conclusion that PV29 is safe relied in part on two studies by German chemical giant BASF. These studies were conducted in 1976 and 1978. Using Dr. Beck's systematic review process, EPA concluded that these two studies were of "medium" quality. Yet BASF, in a regulatory filing with the European Chemicals Agency, admitted that these same studies were "not reliable."

a. Should EPA's risk assessments be relying on studies whose own industry sponsors admit that they are "not reliable?"
b. Why was Dr. Beck allowed to create her own systematic review process for the TSCA program?
c. Why was EPA's own IRIS-developed systematic review process, which has been positively reviewed by the National Academies, not adopted for use for the TSCA program?
d. Will you commit to me that going forward, the TSCA program will not use any systematic review process that has not first been examined by the National Academies?

The Lautenberg Act amendments to TSCA require EPA to use information in a manner consistent with the best available science and base decisions on the weight of the scientific evidence. Scientists in EPA's Office of Chemical Safety and Pollution Prevention have developed a structured systematic review process of identifying, evaluating, and integrating evidence in the risk evaluations. The goal of systematic review, including EPA's Systematic Review framework, is to ensure that the review of the science is objective, consistent, and transparent. The TSCA program has coordinated with other program offices, including the IRIS program, throughout the process of developing the systematic review framework. We released a working draft of the Systematic Review framework in June, and EPA is currently working to address

public comments received on the framework. EPA also will submit our methodology to the National Academy of Sciences (NAS) for peer review and feedback. Regarding PV-29, EPA evaluated the studies under its Systematic Review framework and looks forward to receiving and reviewing comments from the public and peer reviewers on our implementation of the approach.

181. In a final rule published in 2014, EPA approved a new cellulosic biofuel pathway that allows producers additional options to comply with the standard. EPA deemed that charging electric vehicles with renewable electricity derived from cellulosic biogas would create cellulosic biofuel credits, and several companies applied to EPA to get approval under this new pathway (known as the "e-rin" pathway). EPA in late 2016, held an additional comment period to identify and solicit comment on how to administer the e-rin pathway to avoid double counting as well as address other complexities. Since the 2016 rule, the EPA has over two years to review several pending applications and has yet to take any administration action. In my meeting with you, you discussed that there are several outside groups interested in generating the RIN and thus it's a complicated issue. I agree, but that doesn't mean that EPA should not put dedicated staff toward figuring out this issue and providing guidance on how to develop e-rins under the RFS.

    a. Has EPA reviewed the comments from the 2016 proposed rule on how to successfully administer this pathway? If so, why has EPA not taken an action in 2 years to clarify necessary changes if they are needed?
    b. If the pathway was originally approved in 2014 and EPA has already finished a public comment on how to administer the pathway, why has EPA not been able to develop a mechanism to administer the program in nearly 5 years?
    c. Do you commit to having staff work on developing a credit transfer program, to avoid double counting, and review the 40+ applications that have been pending for e-rins at EPA since 2016?

EPA has continued to study this issue. The "e-rin pathway" is particularly difficult for EPA to implement. There typically are several entities in the chain from electricity production to ultimate use in an electric vehicle. Predictably, we have received feedback from many entities in the chain indicating they all want full credit for any RINs generated under this pathway, which would lead to over-counting. More importantly, there are complex challenges related to generating the data needed to ensure the integrity of the program to prevent error and fraud. We continue to work on this pathway and hope to find workable solutions.

182. EPA has an important role in supporting the growth of biofuels, thereby adding diversity to the nation's fuel mix within the transportation sector. EPA's work is especially important within the advanced and cellulosic fuels markets where advances in technologies have the potential to bring important new low-carbon fuels to the market.

Last August, when you testified before this Committee, you committed to providing "certainty within EPA programs" in order to be a better partner with the private sector, as appropriate, in order to provide the clarity and transparency it needs to grow and create jobs.

While work on several efforts related to biofuels are currently being processed within EPA, one effort which remains unresolved and where uncertainty remains is the work related to biointermediates.

As you may know, the Environmental Protection Agency initiated work to address this topic via EPA-HQ-OAR-2016-0041-0196 in May of 2015. A proposed rule was published in November, a public meeting was held in December 2016, and the comment period closed in February 2017. While additional issues beyond the topic of biointermediates were included in EPA-HQ-OAR-2016-0041-0196, a wide range of entities and comments were submitted in support of providing certainty for biointermediates.

To date though, action on the specific issue of biointermediates has not moved forward and the lack of progress has added uncertainty into this segment of the renewable transportation fuel market.

In the proposed rule, the Environmental Protection Agency noted that it may be "preferable for economic or practical reasons for renewable biomass to be subjected to substantial pre-processing at one facility before being sent to a different facility where it is converted into renewable fuel." The Environmental Protection Agency also noted that biointermediates will "likely provide an important component of the growth in renewable fuel production in the future, particularly for advanced and cellulosic biofuels," and proposed "changes in the RFS regulations to clearly specify requirements that apply when renewable fuel is produced through sequential operations at more than one facility."

a. First, given that the Environmental Protection Agency issued a proposed rule regarding biointermediates in 2016 and has since received and reviewed more than forty comments relating to the biointermediates proposal, has the Environmental Protection Agency considered moving forward and providing certainty on the matter of biointermediates in 2019?
b. Second, should you be confirmed, can you provide any certainty whether the Environmental Protection Agency will successfully incorporate biointermediates into one of the pending proposed rules in the unified regulatory agenda on renewable fuels such as the pending rulemaking which proposes modifying the applicable volume targets for cellulosic biofuel, advanced biofuel, and total renewable fuel for the years 2020 – 2022, especially since the abstract for that rule states that it will cover volume modifications, as well as "several regulatory amendments designed to provide clarity and increase opportunities for renewable fuel production."

Biointermediates is one of several issues addressed in the REGs proposal. In November 2016, EPA proposed the Renewables Enhancement and Growth Support (REGS) rule and sought public comment on a variety of topics, including on designing an electric RIN-generation program. EPA has not finalized the proposal and continues to evaluate feedback regarding issues like feedstock eligibility, double counting, and verification. At this time, we do not have a timeline to share regarding when further decisions will be made. EPA takes very seriously the interest in this rule and the concerns of the biomass power industry, and I believe we need to resolve these key policy considerations before finalizing the proposal or pursuing alternative regulatory actions as appropriate. More information on the proposal is available at: https://www.epa.gov/renewable-fuel-standard-program/proposed-renewables-enhancement-and-growth-support-regs-rule.

183. Do you think there should be a standardized social cost of carbon? Is the social cost of carbon greater than zero dollars per metric ton? If so, what is the most accurate social cost of carbon in 2018 and what is the best way to calculate this number?

President Trump's Executive Order 13783 on Promoting Energy Independence and Economic Growth, called for agencies to follow OMB Circular A-4 when calculating the social cost of carbon for use in benefit-cost analysis. In accordance with the Executive Order and consistent with OMB Circular A-4, EPA assessed the impacts of changes to carbon emissions on the United State. EPA's application of the Social Cost of Carbon is presented in several of our regulatory impact analyses. See, for example, "Regulatory Impact Analysis for the Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program," https://www.epa.gov/sites/production/files/2018-08/documents/utilities_ria_proposed_ace_2018-08.pdf. This analysis presents a distribution of estimates based on thousands of model runs. Using a discount rate of 3 percent, the average domestic climate benefit for a one ton reduction in carbon in 2030 is $8 (2016$). Using a discount rate of 7 percent gives an average estimate of $1 for a ton of carbon reduced in 2030.

184. Do you agree with the majority of scientists that anthropogenic climate change is happening?

a. If so, do you agree there are costs to inaction as well as costs to action?
b. Do you believe the American public should have to pay for the costs of inaction—the storm damaged homes, lost crops, and failing fisheries?
c. Do you believe that these costs of inaction have a value that can be calculated? Is the value greater than zero?

Yes, the climate is changing and anthropogenic GHG emissions are contributing to the change. As noted in response to Question 178, above, we account for the "social cost of carbon" in all relevant rules.

185. A 2007 legal challenge prompted the courts to direct the government to further quantify the costs and benefits of a ton of carbon pollution in federal government rulemakings. Specifically, the U.S. Court of Appeals for the 9th Circuit agreed that in quantifying the benefit of cutting carbon pollution but admonished that the value is "certainly not zero."[18] The Court asked National Highway Traffic Safety Administration to do a new rule that addressed this issue. This court decision led the Bush and Obama Administrations to further refine a value for the SCC. Do you reject this decision? If so, please explain why and how that affects how you approach your responsibilities.

EPA routinely considers costs and benefits in its actions, including where it is required to by statute, caselaw, or executive order. EPA's regulatory and de-regulatory actions respecting greenhouse gas emissions have incorporated an analysis of those emissions' potential impacts into its decision making through the use of the "social cost of carbon," in accordance with Executive Order 13783 on Promoting Energy Independence and Economic Growth.

186. In 2009, the Obama administration created an interagency working group (IWG) in an effort to create a governmental value for the social cost of carbon, which based its calculations on peer-reviewed economic models and expert opinions. The models included in their analysis were the Dynamic Integrated Climate-Economy (DICE)[19], Policy Analysis of the Greenhouse Effect (PAGE)[20], Climate Framework for Uncertainty, Negotiation and Distribution (FUND)[21], and World Induced Technical Change Hybrid (WITCH)[22] models. The IWG was comprised of scientists and economists from the Office of Management Budget, the Council for Environmental Quality, the National Economic Council, the EPA, the U.S. Department of Agriculture, Energy, Transportation, and Treasury.

a. Can you discuss whether you think the models used by the IWG are appropriate and credible tools for calculating the social cost of carbon?

The Administration has updated its social cost of carbon estimates to comply with President Trump's Executive Order 13783. These estimates continue to use the same three integrated assessment models used by the Obama Administration. It is worth noting that those models necessarily require assumptions about future economic growth, future population growth, technology changes, future greenhouse gas emissions, climate sensitivity, and damage functions for more than 200 years. Hence the underlying uncertainty of the inputs may be even greater than the uncertainty in the climate assessments incorporated into the model. EPA has included the updated

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[18] *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 508 F.3d 508, U.S. Court of Appeals for the 9th Circuit (2007), available at http://caselaw.findlaw.com/us-9th-circuit/1024716.html.

[19] Dynamic Integrated Climate-Economy model (DICE), http://www.econ.yale.edu/~nordhaus/homepage/dicemodels.htm

[20] Policy Analysis of the Greenhouse Effect (PAGE), http://climatecolab.org/resources/-/wiki/Main/PAGE

[21] The Climate Framework for Uncertainty, Negotiations and Distribution (FUND), http://www.fund-model.org/

[22] World Induced Technical Change Hybrid model (WITCH), http://www.witchmodel.org/

social cost of carbon estimates in recent regulatory proposals and has asked for public comment on these analyses.

b. Can you comment on whether the IWG was comprised of the right governmental stakeholders and actors?

Executive Order 13783, issued in March 2017, disbanded the IWG. It is difficult to know if the right governmental stakeholders and actors comprised the IWG as to my knowledge, the Obama Administration never released a list of names of participants.

187. On March 28, 2017, the President issued a Presidential Executive Order on Promoting Energy Independence and Economic Growth, which disbanded the IWG, withdrew the guidance it issued, and reverted to OMB Circular A-4 of September 17, 2003 (Regulatory Analysis). This in effect requires each agency to estimate the value of changes in greenhouse gas emissions resulting from regulations. Do you believe the regulatory process will be more effective and efficient in the absence of unified guidance on how to monetize the value of changes in greenhouse gas emissions? How does this advance the value of regulatory certainty you claim to support?

OMB Circular A-4 embodies the best practices for conducting regulatory cost-benefit analysis. Compliance with OMB Circular A-4 across EPA rulemakings, and across the federal government, including in those instances for which an agency may assess the costs or benefits of carbon, advances regulatory certainty. President Trump's Executive Order 13783 gave explicit instructions on how to move forward on estimating a new Social Cost of Carbon, utilizing the guidance set forth in OMB Circular A-4. In implementing these new instructions, EPA has included this analysis in recent regulatory proposals and has asked for public comment on these analyses. These instructions and the transparent process implemented by EPA has provided a great deal of regulatory certainty to the public: they understand the range of domestic SCC values applied by EPA; they also understand how we arrived at these estimates.

188. Part of the social cost of carbon calculation assumes a value for discount rates. The IWG after reviewing past OMB guidance recommended using a 3% discount rate[23].

a. Do you have an opinion on what the discount rate value should be when calculating the social cost of carbon?
b. Scientific research has found that it would be more accurate to use a declining discount rate instead of a fixed one. Do you agree that a declining discount rate would be more accurate?
c. Do you have an opinion on what the discount rate value should be used for inter-generational impacts?

[23] Interagency Working Group on Social Cost of Greenhouse Gases, *Technical Support Document*, pp. 15–16.

d. Why should one generation discount the impact of harms upon another generation at all?

As directed by Executive Order 13783, when federal agencies monetize the value of changes in greenhouse gas emissions resulting from regulations, including the consideration of appropriate discount rates, they must comply with OMB Circular A-4. OMB Circular A-4 embodies the best practices for conducting regulatory cost-benefit analysis. Circular A-4 provides instructions for federal agencies to apply estimates using both 3 and 7 percent discount rates in regulatory analysis. In accordance with the Executive Order and Circular A-4, EPA's recent estimates of the social cost of carbon apply a 3 and 7 percent discount rate.

189. Is it appropriate for a cost-benefit analysis to consider the harm caused in other countries from pollution emitted in the United States? If not, please explain why.

EPA typically undertakes cost-benefit analyses for regulatory activities using OMB guidance outlined in circular A-4. Circular A-4 requires that analysis be focused on benefits and costs that accrue to citizens and residents of the United States; however, it does allow for the separate reporting of affects beyond U.S. borders. Therefore, the Agency can look at pertinent information on externalities beyond US jurisdictions depending on the particular circumstances, including statutory authority and other direction from Congress.

190. What projects, both domestically and internationally, are EPA staff and contractors engaged in to combat marine debris?

The EPA is engaged in a number of activities to combat marine debris both domestically and internationally. Some of our most extensive involvement is leading the Trash Free Waters (TFW) program, where we support—in partnership with many stakeholders—a broad range of activities from source reduction to clean-up. EPA's Office of Water is also addressing marine debris through regulatory programs such as the Clean Water Act 303(d) Listings for Trash Impairment, National Pollution Discharge Elimination System (NPDES) stormwater permits for trash, and the development of a trash Total Maximum Daily Load (TMDL). Under the Resource Conservation and Recovery Act, WasteWise promotes use and reuse of materials more productively over the entire life-cycle, the WRAP Program is helping to recycle plastic films, and EPA is developing a waste management guidance tool that would also be useful as a resource for developing countries.

EPA advances marine litter solutions through an international program modeled on our domestic TFW program, and is pursuing collaborations with Jamaica, Peru and Panama. EPA also works with the United Nations Caribbean Environment Program, focused on reducing land-based sources of marine pollution, including in the Gulf of Mexico and the wider Caribbean region and provides expertise to the United Nations

Environment Program (UNEP) on developing practical solutions to address the sources of marine litter. In December, EPA participated in the Second Meeting of the Ad Hoc Open Ended Expert Group (AHOEEG) on Marine Litter and Microplastics, which included over 300 attendees, with 40 governments and robust representation from industry and NGOs. The outcome document will be part of this March's United Nations Environment Assembly (UNEA) agenda, where EPA will again have a leadership role.

EPA coordinates our international work with NOAA and the Department of State. Additional details regarding these efforts are available on our website: https://www.epa.gov/trash-free-waters.

191. Is EPA undertaking any studies or analyses investigating the public health risks of microplastics, microfibers, and other plastic waste?

Yes, EPA and our federal partners are engaged in numerous studies and analyses to develop standardized methodologies and data for plastics research and to evaluate the potential impact that exposure to microplastics and nanoplastics, including microfibers, and other plastic waste might have on public and environmental health, domestically and internationally.

192. What opportunities exist through the EPA's Clean Water Act and/or Resource Conservation and Recovery Act authorities to improve waste management, study and mitigate the effects of plastic waste pollution in waterways and the ocean, and support waste reduction, improved recycling, and cleanup efforts?

The EPA is engaged in a number of activities under the Clean Water Act, the Resource Conservation and Recovery Act, and other statutes to combat marine debris both domestically and internationally. Significant regulatory mechanisms exist to prohibit the discharge of pollutants that could harm human health and the environment domestically. One of our more effective programs in this context involves our collaborative Trash Free Waters (TFW) program where we support, in partnership with many stakeholders, a broad range of activities from source reduction to clean-up. EPA has expanded TFW internationally to Peru and Jamaica and is in the process of expanding to Panama. EPA is also exploring opportunities to expand to the Asia-Pacific region; five countries in Asia contribute 60% of the global marine litter volume, impacting ocean health worldwide, and US waters and industries.

193. Does EPA require any additional authorities to export its technical expertise and best practices to foreign partners and priority countries in need of assistance in improving its waste management practices to minimize marine debris?

a. Can EPA currently undertake its own bilateral discussions, or must it go through the State Department or USAID to develop these relationships?

EPA provides expertise on marine litter in bilateral and multilateral engagements. Although we may undertake activities directly, we coordinate closely with State Department, USAID, and NOAA on such engagements. The extent of engagement is constrained by available resources, rather than legal authority. The Save Our Seas Act funds the Marine Debris Program at NOAA. There is no dedicated funding for EPA's international marine debris work.

194. When approving chemicals and other components or end plastic products, does EPA currently consider the longevity of those materials in the environment and the potential harm they can cause as they degrade?

In its review of new and existing chemical substances, EPA investigates what happens to a chemical over time once it is in the environment. In this review, EPA evaluates reasonably available information not only with regard to the specific chemical substance under review but also any substances into which the chemical breaks down to or transforms into once it enters the environment or biological systems. In some cases, such as existing chemicals that have been relatively well studied, EPA may be able to use experimental or monitoring data to understand what happens to a chemical once it enters the environment and how long it stays there. Generally, for new chemical substances, EPA uses modeling based on the chemical's physical-chemical properties and/or information known about the behavior of structurally similar chemical substances.

195. Does EPA regularly participate in the Interagency Marine Debris Coordinating Committee? If so, who attends from EPA?

Yes, EPA does participate in the Interagency Marine Debris Coordinating Committee. EPA's Office of Water representatives regularly participate with the Coordinating Committee.

196. What role have you personally and as a representative of the U.S. taken in international, multilateral gatherings, like the G7, G20, ASEAN, UNEP, and other summits, to make marine debris a priority topic? Have any new partnerships, agreements, or knowledge exchanges come out of these meetings?

I represented the United States at the 2018 G7 Environment Ministers Meeting in Halifax, Canada on September 19th and 20th where I spoke in support of action to address marine debris and joined the rest of the G7 in launching the G7 Innovation Challenge to Address Marine Plastic Litter. In 2019, I plan to continue to represent U.S. government views on marine litter at high level meetings such as the G7 and G20 Environment Ministers Meetings.

197. In May 2015, EPA released a 423-page technical support document outlining the legal and scientific basis for the agency's Clean Water Rule. Will EPA release a similar document to support its legal reasoning behind the agency's new proposed "Waters of the U.S." definition, especially given the definition depends solely upon Justice Scalia's opinion in *Rapanos,* a position without judicial precedent?

The preamble to the proposed rule, a resource and programmatic assessment, and detailed economic assessment were made available to the public on the EPA's website on December 11, 2018, the date the proposed rule was signed.

198. Will EPA extend the comment period on its new proposed definition of "Waters of the U.S." given the partial government shut down? If so, for how long and when will this be announced?

The proposed rule has yet to be published in the Federal Register, but the public has had access to the proposed rule, the economic assessment and related supporting documentation since December 11, 2018. The EPA and the Department of the Army will evaluate requests for extending the comment period after the proposed rule has been published in the Federal Register.

199. Why was only one listening session scheduled? How was Kansas City, KS selected as the site of this one listening session?

The EPA and the Department of the Army intend to hold a public hearing in Kansas City, Kansas, regional state and tribal engagements in Savanah, Georgia and Santa Fe, New Mexico, and a series of webinars and other stakeholder engagement meetings throughout the comment period. Kansas City was selected for the public hearing based on its central location, access to a major international airport, and available support staff from both the EPA and the Army Corps of Engineers given the location of an EPA Regional Office and Corps District Office in Kansas City.

200. Has EPA revisited its estimate of the benefits of wetland mitigation since its June 2017 economic analysis for the proposed definition of "Waters of the U.S."? If not, does it have plans to do so before the rule is finalized?

The EPA and the Department of the Army performed a comprehensive economic assessment of the proposed rule entitled "Revised Definition of 'Waters of the United States,'" signed on December 11, 2018, including an evaluation of wetland benefits and other relevant factors. The draft economic analysis and a corresponding draft resource and programmatic assessment are both available on EPA's website at https://www.epa.gov/wotus-rule/step-two-revise.

Senator Wicker:

201. Under the Clean Water Act, EPA has jurisdiction over the discharge of substances into a water of the United States. As such, the agency has oversight of offshore aquaculture projects, along with other agencies such as the U.S. Army Corps of Engineers and NOAA. Will you commit to working with the agencies that are responsible for regulating offshore aquaculture to ensure that this industry has greater regulatory certainty in federal waters?

The EPA is currently working with, and will commit to continuing our work with, the U.S. Army Corps of Engineers, NOAA, and other agencies to provide greater regulatory certainty for the aquaculture industry.

202. The Pesticide Registration Improvement Act (PRIA) was first enacted in 2004 to provide dedicated funds to EPA to evaluate the safety and efficacy of antimicrobials, sanitation products, and pesticides. This legislation has been reauthorized twice by unanimous consent or voice votes in the House and Senate, which indicates that there is strong bipartisan support and a lack of controversy for this statute. However, the most recent reauthorization failed to reach the President's desk before the end of the 115th Congress.

a. How important is PRIA to EPA's mission?
b. If Congress does not reauthorize PRIA, what will the impact be on EPA staffing and budgets? What will the impact be on manufacturers of these products whose EPA registration is effectively a license to operate?

PRIA provides approximately 33 percent of the funding for EPA's pesticide program activities. Under the third iteration of the statute, PRIA provided two funding sources to EPA's pesticide program:

- **One-time registration service fees (i.e., PRIA fees) for the evaluation of new applications submitted to the EPA; and**
- **Annual FIFRA maintenance fees assessed to products currently in the marketplace, a significant portion of which are used to support the re-evaluation**

of pesticides in order to meet the statutory deadline of October 1, 2022, for completing the first round of registration review.

PRIA's authorization expired on December 21, 2018. Because PRIA was not reauthorized or further extended, pesticide applications submitted after December 21, 2018, are no longer be subject to decision time periods. The two-year sunset provision in FIFRA section 33(m) specifies fees be reduced in fiscal year 2018 by 40 percent below the levels in effect during fiscal year 2017, and by 70 percent in fiscal year 2019. Effective September 30, 2019, fee requirements under PRIA would be terminated.

Additionally, if PRIA were not reauthorized, $2 million per year for worker protection activities, pesticide safety education programs, and partnership grants, monies that currently come from PRIA funds, would not be available and these programs would not be funded. These activities include:

- **Developing and administering a pesticide safety training program that will support a national network of pesticide safety trainers providing worker safety training to migrant and seasonal farmworkers and their families (National Farmworker Training Program);**
- **Developing pesticide education materials for workers, handlers, and trainers on how to comply with WPS (cooperative agreement with UC-Davis and Oregon State University); and**
- **Supporting National Pesticide Information Center (NPIC), a bi-lingual, factual source of information for professional and public audiences on pesticide-related issues.**

PRIA provides predictability and regulatory certainty to all stakeholders regarding the timing of pesticide registration decisions. In the absence of PRIA, the statutory timelines would no longer exist and applications to register new pest control tools would be reviewed as resources were available. However, EPA would not be in a position to guarantee a registration decision timeline with any certainty. Farmers in need of new pest control tools could be significantly impacted as they may not be able to timely adopt new technologies to address their pest management needs.

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Fiscal Year 2018
EPA Enforcement and Compliance
Annual Results

Prepared by the Office of Enforcement and Compliance Assurance
U.S. Environmental Protection Agency

January 2019

FY 2018 Enforcement and Compliance Annual Results

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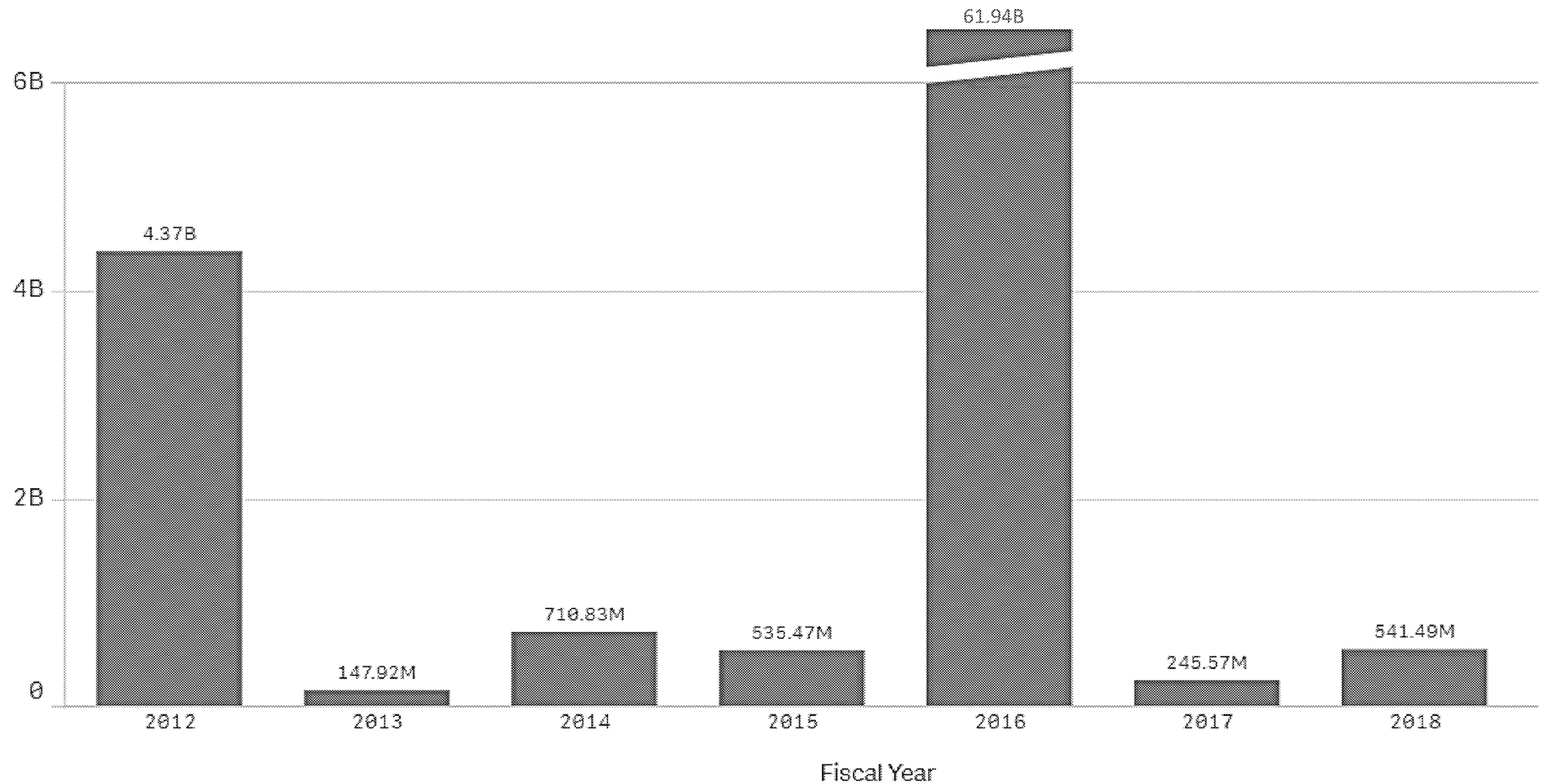
Note: This data reflects all EPA enforcement actions, including Federal Facility Compliance Agreements and inspections, unless otherwise noted. Does not include state and local enforcement actions or inspections.

Estimated Environmental Benefits Hazardous Waste and Non-Hazardous Waste Treated, Minimized, or Properly Disposed FY 2012 – FY 2018



- In FY 2018, EPA enforcement actions required facilities to commit to treat, minimize, or properly dispose of over an estimated 540 million pounds of hazardous and non-hazardous waste.
- Annual totals for environmental benefits are often strongly influenced by one or two large cases. In FY 2018 two RCRA hazardous waste actions accounted for nearly 99% of the national total.
- FY 2016, the IMC Phosphates Co. (Mosaic Fertilizer) RCRA case accounted for over 99% of the hazardous and non-hazardous waste total of 62 billion pounds in that year.

1. Starting in FY 2012, EPA changed the way it stores environmental benefit information in the ICIS data system. Therefore, data are not available for years prior to FY 2012.
2. Starting in FY 2016, EPA combined reductions in hazardous waste and non-hazardous waste into one measure.

Data Source: Integrated Compliance Information System (ICIS)
Data as of: Dec-9-2018

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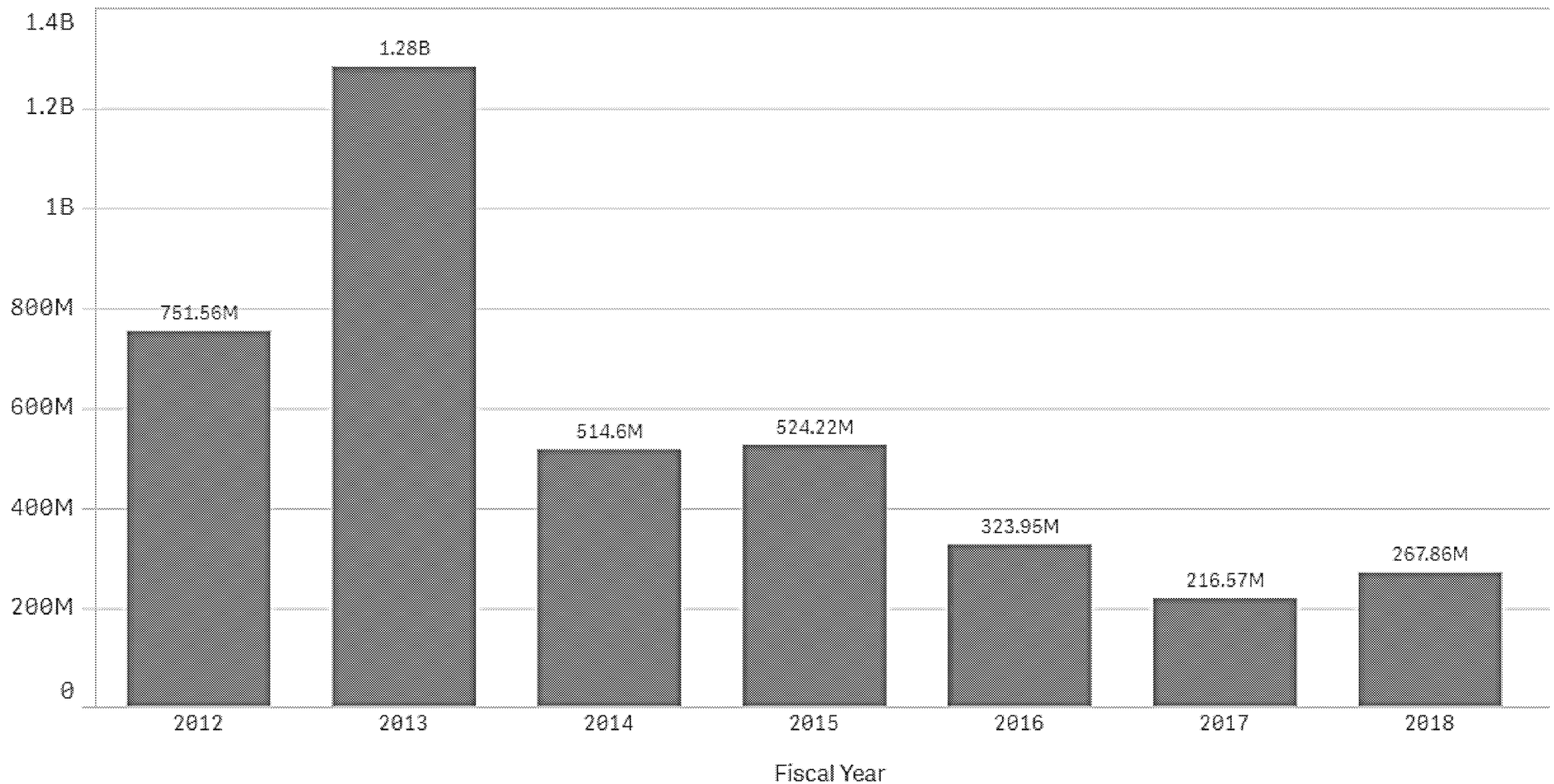
Estimated Environmental Benefits: Commitments to Reduce, Treat, or Eliminate Pollution (Air, Toxics, and Water)
FY 2012 – FY 2018



- In FY 2018, EPA enforcement actions required facilities to commit to reduce, treat, or eliminate pollution by an estimated 268 million pounds per year.
- Annual totals for environmental benefits are often influenced by one or two large cases. In FY 2018 the Midwest Generation (a CAA stationary source action) committed to reduce, treat, or eliminate an estimated 105 million pounds per year, which accounts for nearly 40% of the national total.
- EPA has, through actions in prior years, addressed the largest stationary sources of air pollution and the largest municipal dischargers. As a result, we recently have increased our focus on reducing toxic pollutants, which are less in volume but higher in toxicity.

1. Starting in FY 2012, EPA changed the way it stores environmental benefit information in the ICIS data system. Therefore, data are not available for years prior to FY 2012.

Data Source: Integrated Compliance Information System (ICIS)
Data as of: Dec-9-2018

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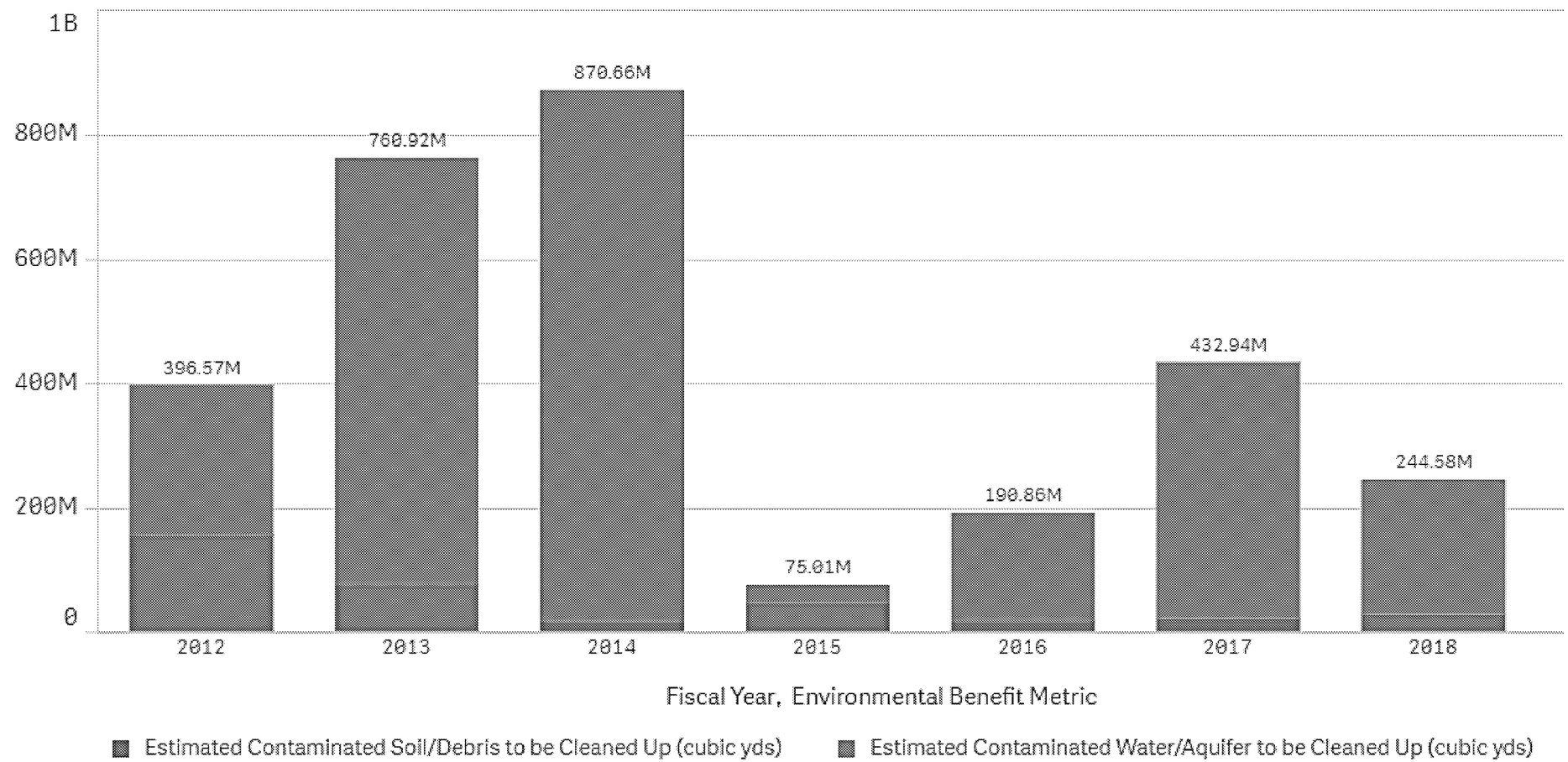
Estimated Environmental Benefits: Volume of Contaminated Soil and Water to be Cleaned Up FY 2012 – FY 2018



- In FY 2018, EPA enforcement actions obtained commitments to clean up over 244 million cubic yards of contaminated soil and water.
- Annual totals of soil and water to be cleaned up are often strongly influenced by the existence of one or two large cases. For example, in FY 2013 and FY 2014 three big cases accounted for the majority of the soil and water to be cleaned up.

1. Starting in FY 2012, EPA changed the way it stores environmental benefit information in the ICIS data system. Therefore, data are not available for years prior to FY 2012.
2. Starting in FY 2018, the Agency is reporting contaminated soil cleanup from all cases, not just from RCRA Corrective Action and CERCLA cases as in past years. However, RCRA and CERCLA cases account for more than 99% of the FY 2018 total.

Data Source: Integrated Compliance Information System (ICIS)
Data as of: Dec-9-2018

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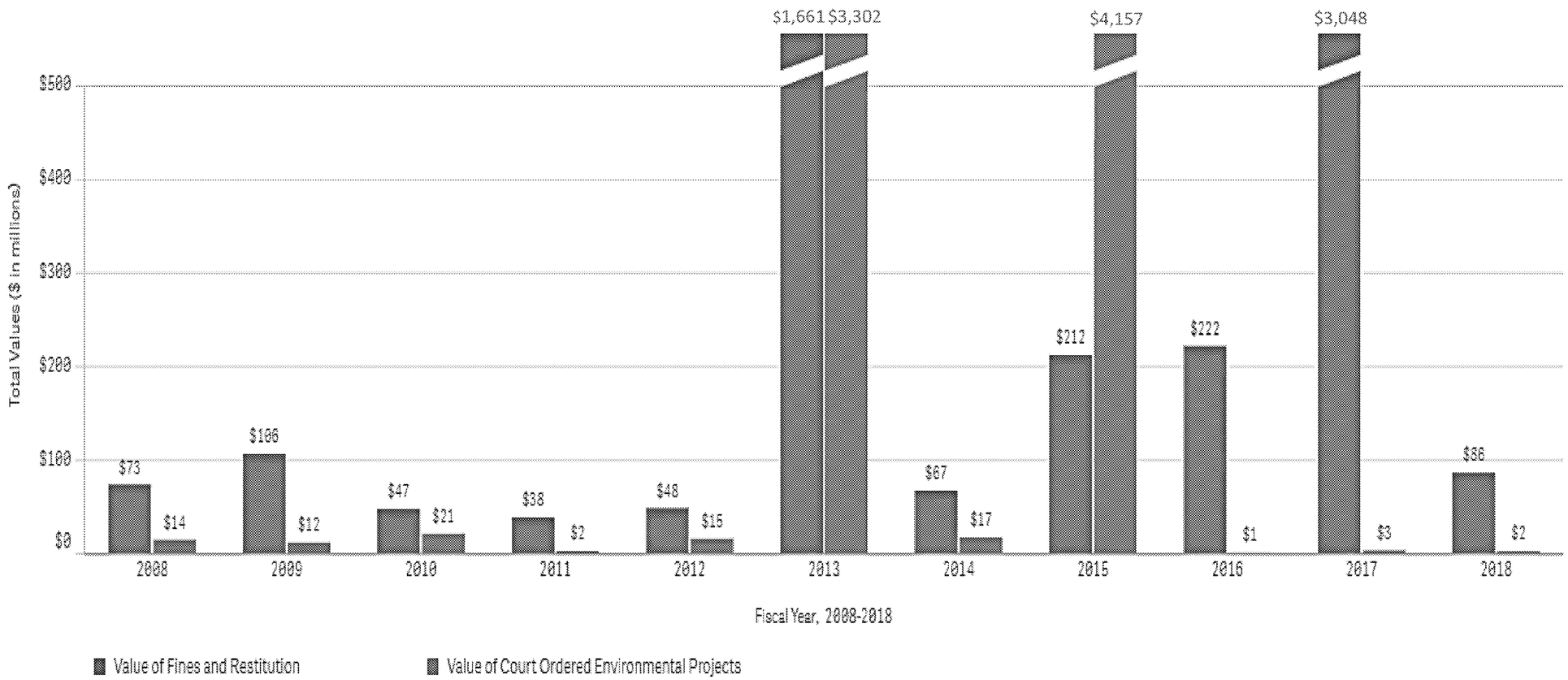
Criminal Enforcement
Value of Fines and Restitution and Court Ordered Environmental Projects
FY 2008 – FY 2018

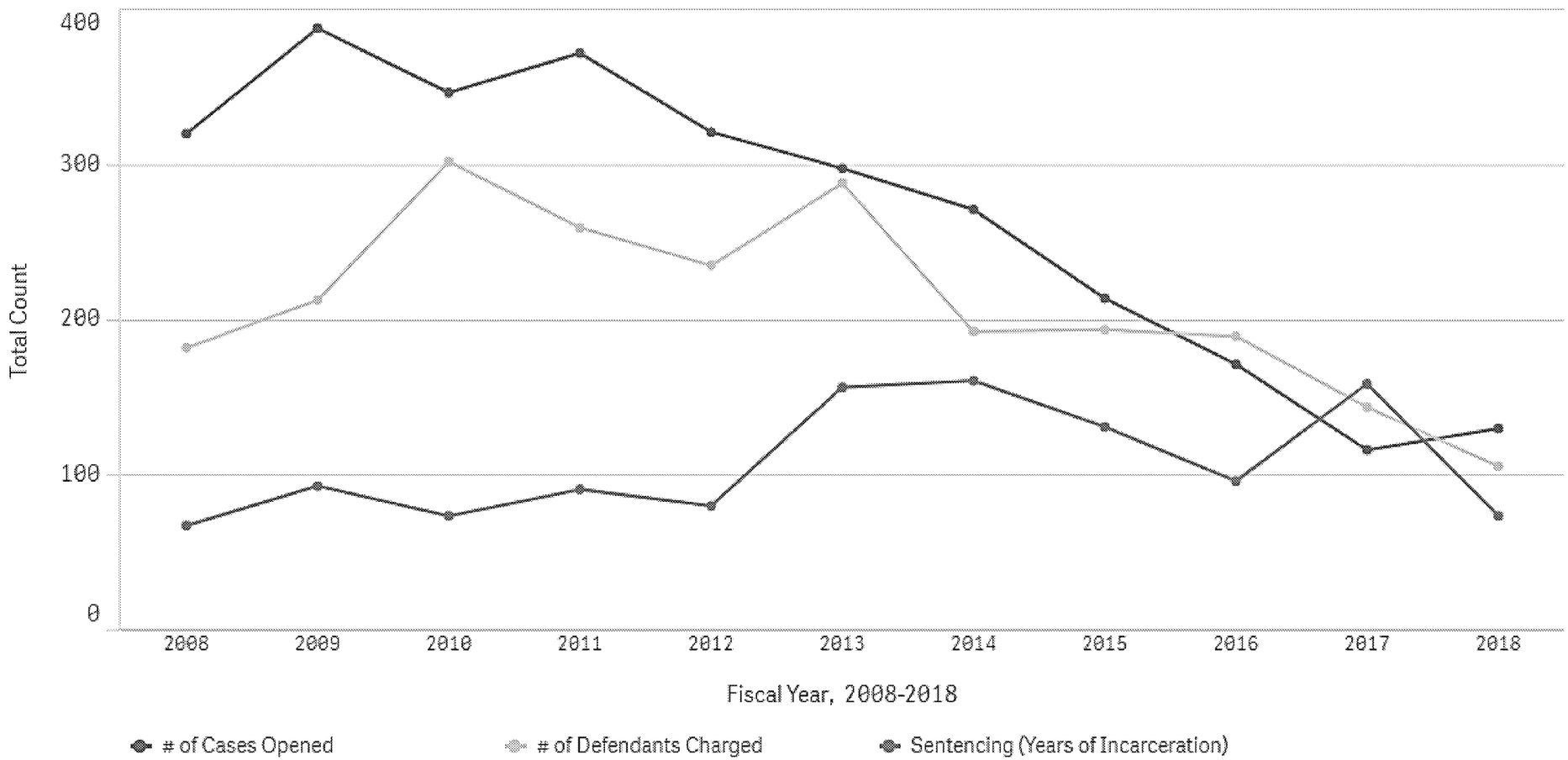


- In FY 2018, the total of criminal fines, restitution, and court ordered projects was $88 million.
- Annual totals vary widely due to large cases such as BP in 2013, Duke Energy in 2015, and Volkswagen in 2017.

1. All prior FY dollar figures in the graph are adjusted to reflect the current value in FY 2018 dollars based on the monthly rate of inflation/deflation as determined by the U.S. Department of Labor Consumer Price Index for All Urban Consumers.
2. Dollar figures referenced in the bullets are nominal values. They are not adjusted to reflect inflation/deflation.

Data Source: Criminal Case Reporting System
Data as of: Nov-13-2018

Criminal Enforcement
Environmental Crime Cases Opened, Defendants Charged, and Sentencing Results (Years of Incarceration)
FY 2008 – FY 2018



- In FY 2018, the criminal program continued to focus on complex cases that involve a serious threat to human health and the environment and/or undermine program integrity.
- For the first time since FY 2011, the number of environmental crime cases opened increased.

Data Source: Criminal Case Reporting System
Data as of: Nov-13-2018

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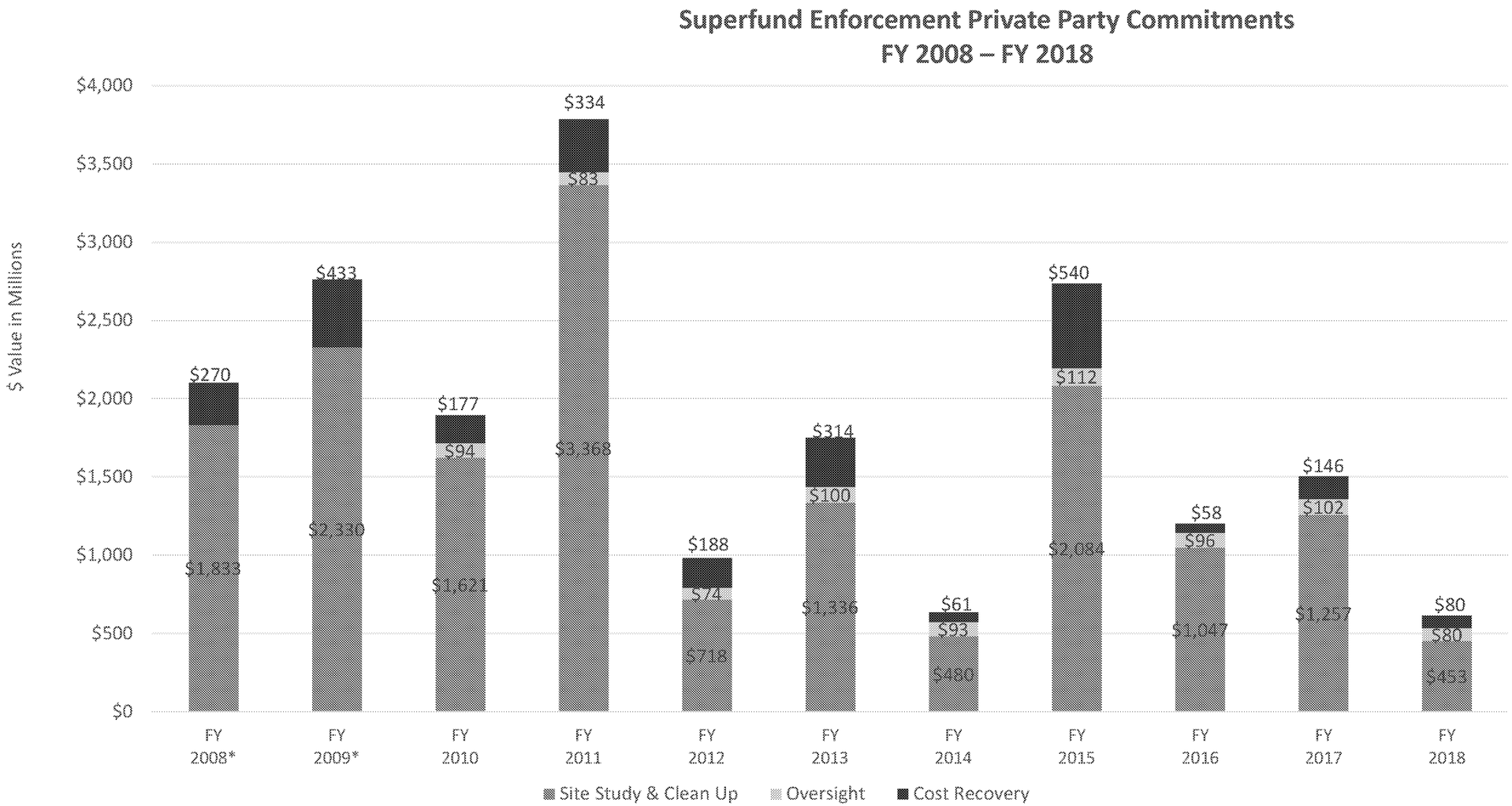


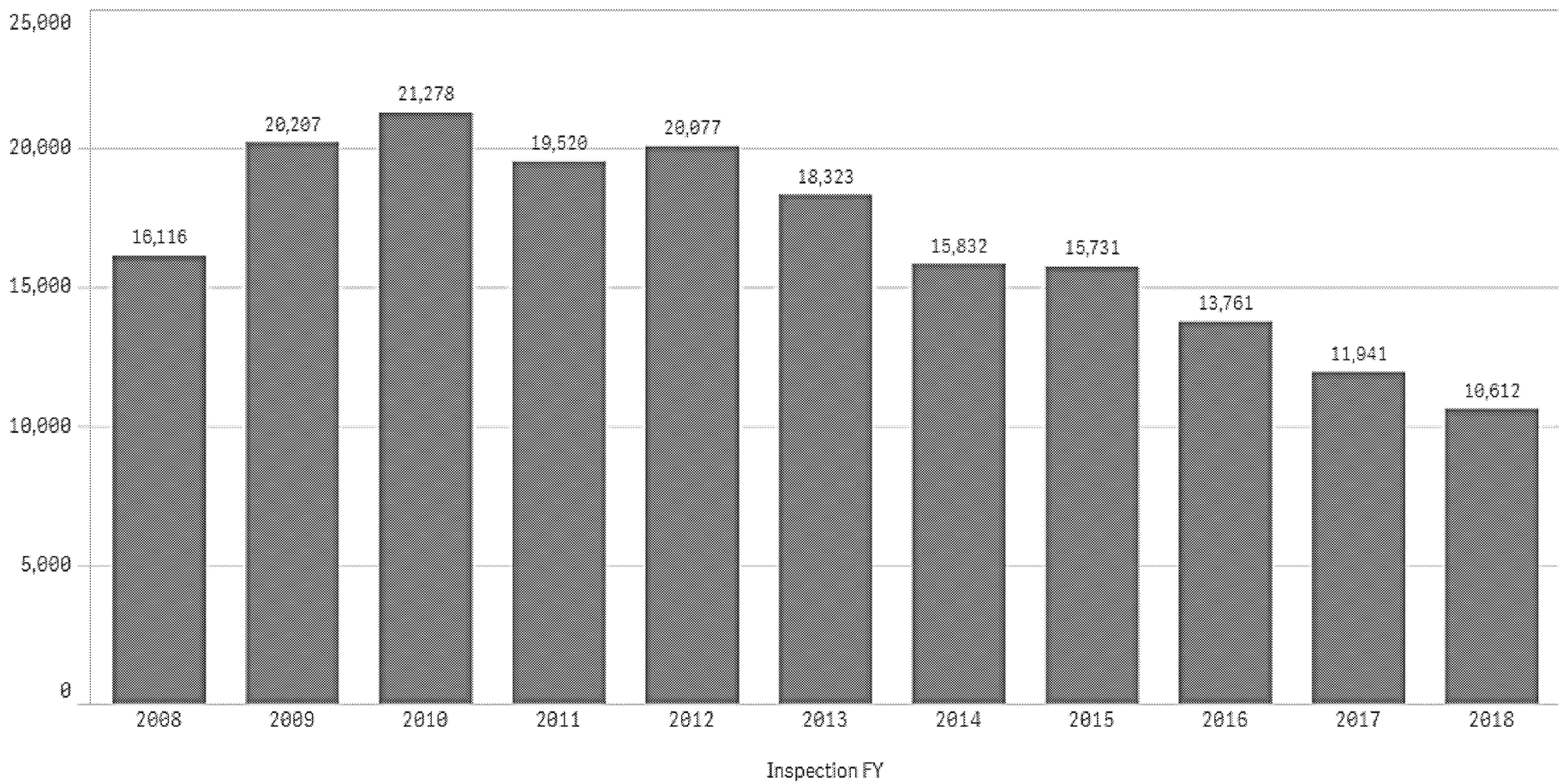
- In FY 2018, private parties committed to spend approximately $453 million on new site cleanup. Responsible parties also agreed to reimburse $80 million of EPA's past costs from clean up work at Superfund sites.
- Annual totals for both cleanup and cost recovery settlements are often influenced by the existence of one or two large cases that involve complex cleanups.

1. Totals include "allowed claims" under bankruptcy settlements.
2. These results do not include commitments made for activities at Federally-owned or operated facilities.
3. All prior FY dollar figures in the graph are adjusted to reflect the current value in FY2018 dollars based on the monthly rate of inflation/deflation as determined by the U.S. Department of Labor Consumer Price Index for All Urban Consumers.
4. Dollar figures referenced in the bullets are nominal values. They are not adjusted to reflect inflation/deflation.

* Amounts billed for Oversight were not reported as part of end-of-year results prior to FY 2010.

Data Source for Cleanup and Cost Recovery: FY08-FY13 Comprehensive Environmental Response, Compensation & Liability Information System (CERCLIS);
FY14/15 Manual Reporting; FY16 forward Superfund Enterprise Management System (SEMS).
Data Source for Oversight: Compass Business Objects Reporting (CBOR).
Data as of: Oct-16-2018

Federal Inspections and Evaluations (Conducted by EPA)
FY 2008 – FY 2018



- In FY 2018, EPA conducted 10,600 inspections/evaluations.
- EPA continues to use data analytics and other tools to improve inspection targeting, which allows it to use its inspection resources more efficiently.

Data Source: ICIS, RCRA Info (for RCRA HW), manual (for SDWA UIC)
Data as of: Dec-9-2018

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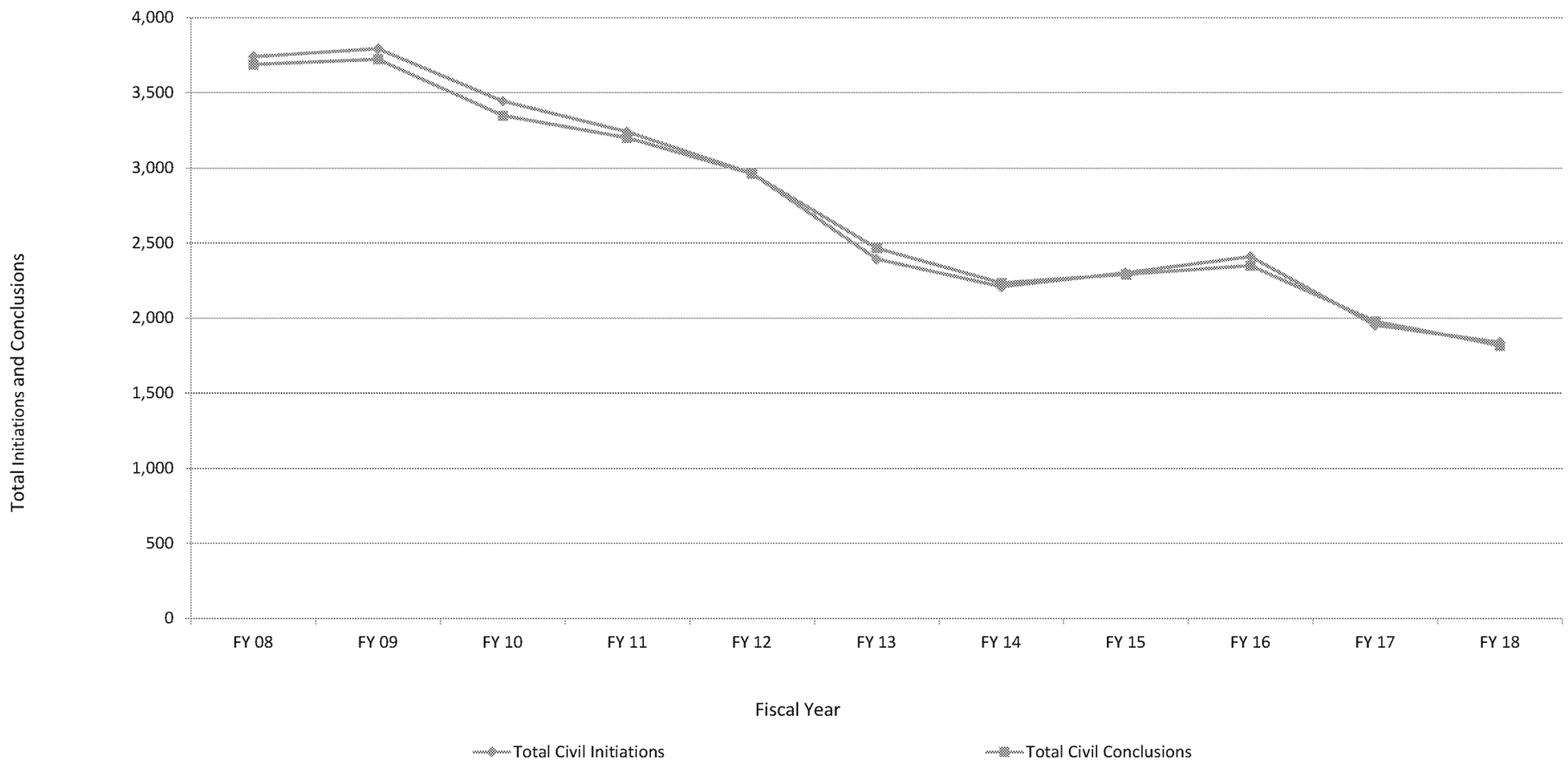
Total Civil Enforcement Case Initiations and Conclusions
FY 2008 – FY 2018



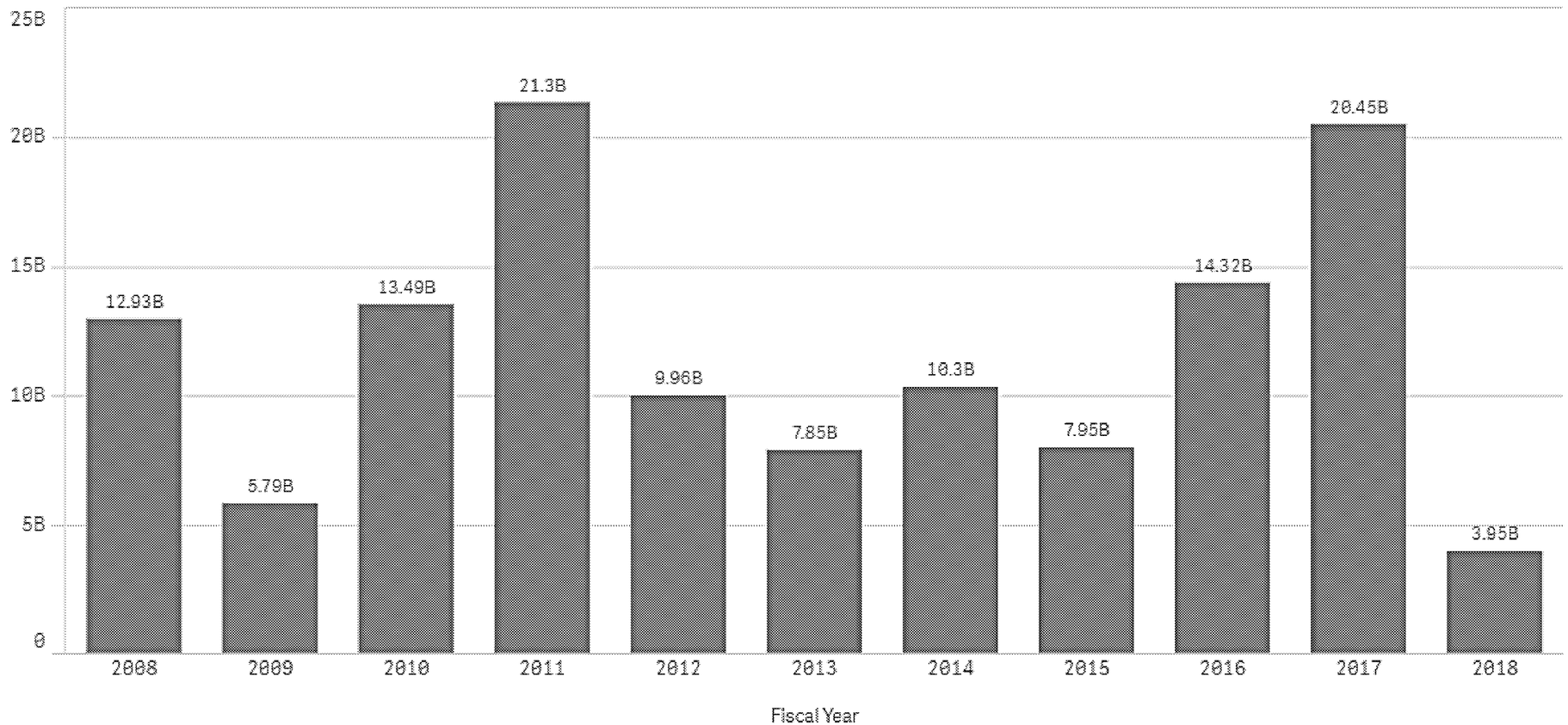
- In FY 2018, EPA initiated and concluded more than 1,800 civil judicial and administrative cases.

1. Totals include CERCLA Initiations and Conclusions.

Data Source: Integrated Compliance Information System (ICIS)
Data as of: Dec-9-2018

Estimated Value of Administrative and Civil Judicial Complying Actions (Injunctive Relief) FY 2008 – FY 2018

Prior FY Totals Inflation Adjusted to Reflect the Current Totals in FY 2018 Dollars



- In FY2018, EPA enforcement actions required companies to invest nearly $4 billion in actions and equipment to control pollution (injunctive relief.)
- Injunctive Relief results vary from year to year depending on the timing of the resolution of the largest cases.

1. Injunctive relief requires a regulated entity to perform, or refrain from performing, some designated action to bring the entity into compliance with environmental laws.
2. All prior FY dollar figures in the graph are adjusted to reflect the current value in FY2018 dollars based on the monthly rate of inflation/deflation as determined by the U.S. Department of Labor Consumer Price Index for All Urban Consumers.

Data Source: Integrated Compliance Information System (ICIS)
Data as of: Dec-9-2018

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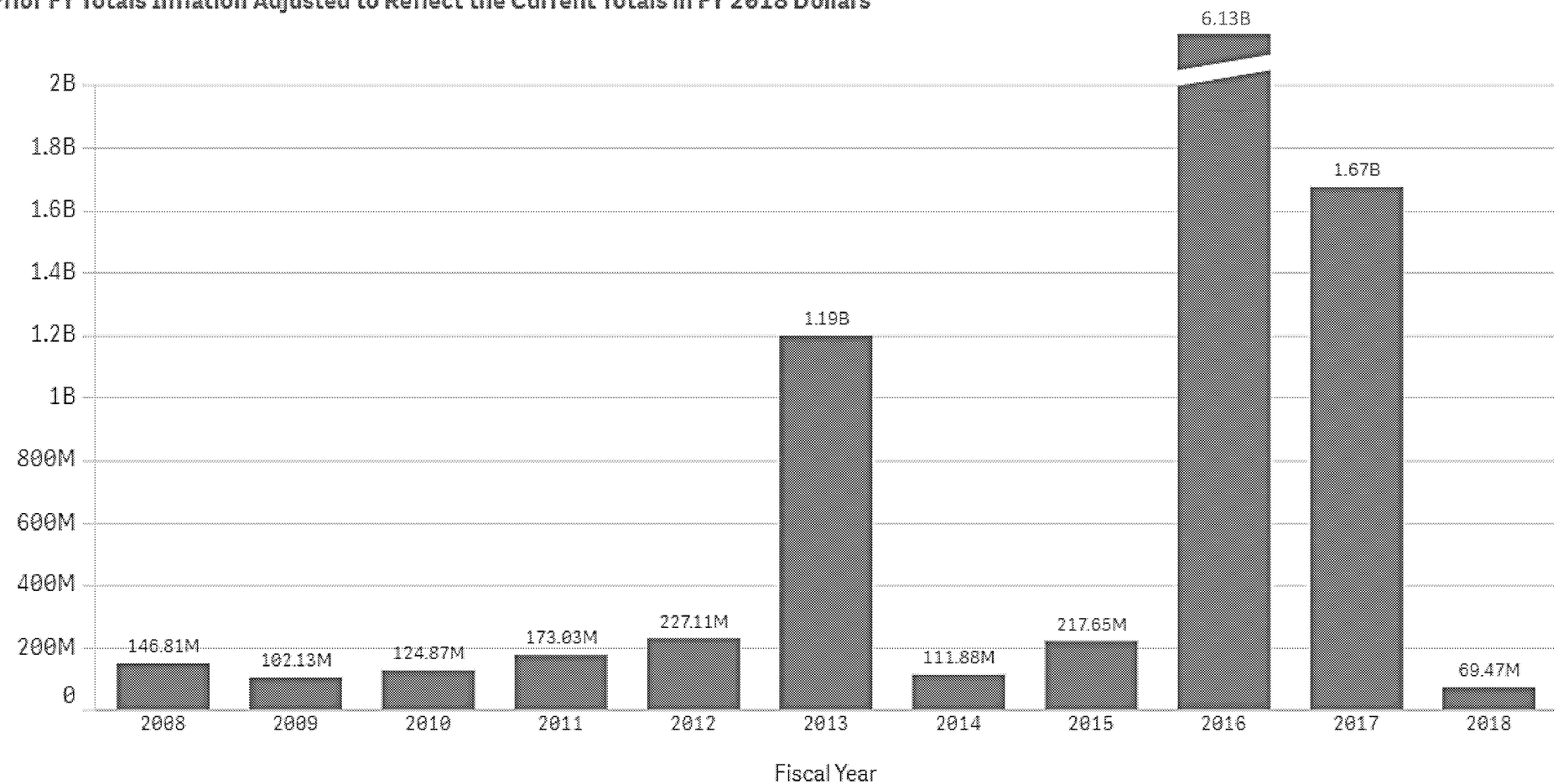
Administrative and Civil Judicial Penalties Assessed
FY 2008 – FY 2018

Prior FY Totals Inflation Adjusted to Reflect the Current Totals in FY 2018 Dollars



- In FY 2018, EPA obtained over $69 million in federal administrative and civil judicial penalties.
- Annual total penalties assessed are often strongly influenced by the existence of one or two large cases.
- The FY 2017 results were dominated by the record setting $1.45 billion Clean Air Act – Mobile Source penalty in the Volkswagen case and the FY 2016 results were dominated by the $5.7 billion BP action.

1. All prior FY dollar figures in the graph are adjusted to reflect the current value in FY 2018 dollars based on the monthly rate of inflation/deflation as determined by the U.S. Department of Labor Consumer Price Index for All Urban Consumers.
2. Dollar figures referenced in the bullets are nominal values. They are not adjusted to reflect inflation/deflation.

Data Source: Integrated Compliance Information System (ICIS)
Data as of: Dec-9-2018

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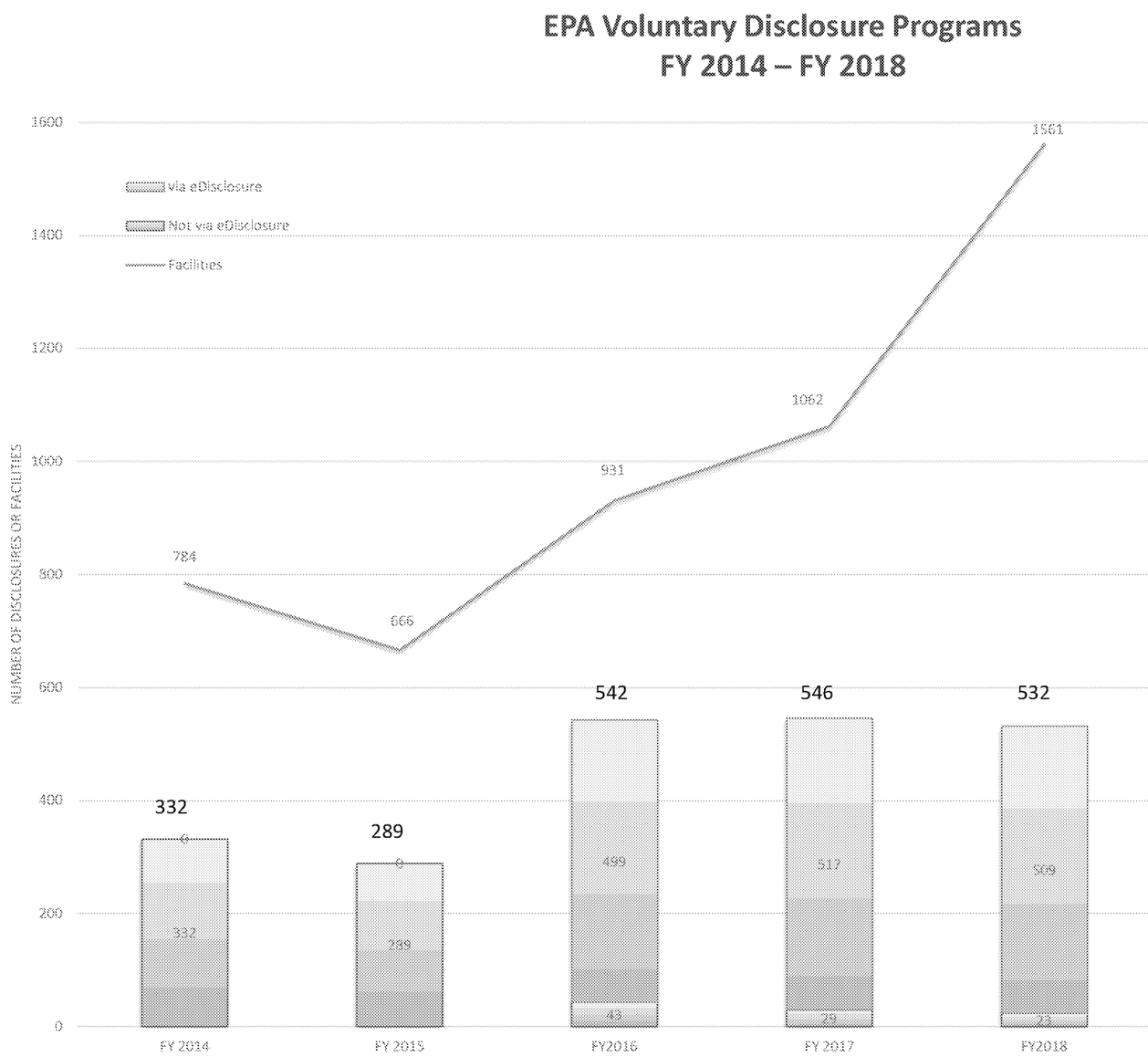
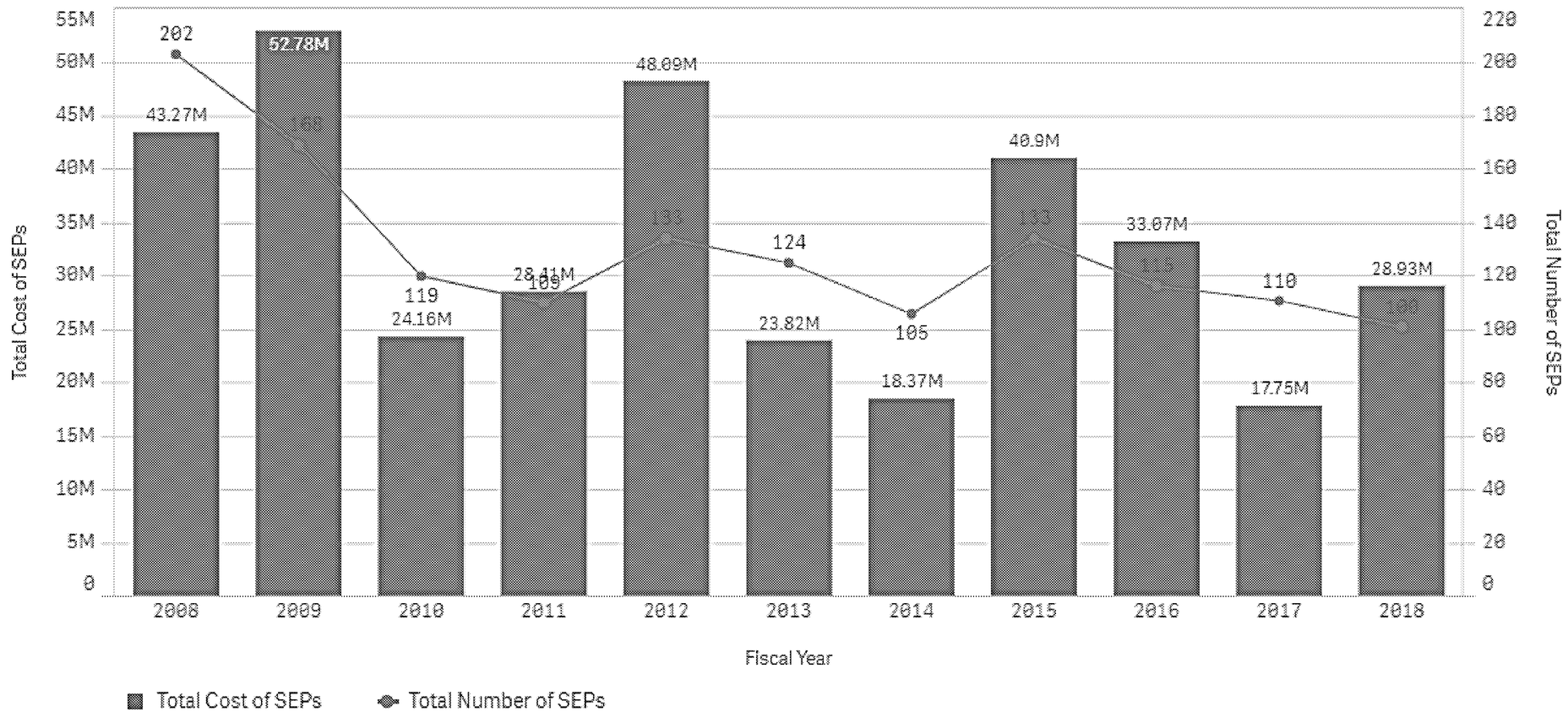


- In FY 2018, 532 entities at over 1,500 facilities voluntarily disclosed violations pursuant to EPA's self-disclosure policies. The 47% increase in facilities self-disclosing violations over 2017 is attributed to several New Owner Audit Agreements involving large numbers of facilities.
- In the nearly three years since launching *eDisclosure*, EPA has seen about a 74% increase in the number of annual self-disclosures as compared to the two years prior to its launch.

Data Source: Integrated Compliance Information System (ICIS) and *eDisclosure* System
Data as of: Nov-5-2018

Supplemental Environmental Projects (SEPs)
FY 2008 – FY 2018

Prior FY Total Cost of SEPs Inflation Adjusted to Reflect the Current Totals in FY 2018 Dollars



- In FY 2018, EPA enforcement cases included 100 voluntary agreements to perform Supplemental Environmental Projects (SEPs) with a total estimated cost of over $28 million.
- SEPs are projects that are not otherwise legally required that have a close nexus to the violations and that a defendant/respondent agrees to undertake to benefit the community harmed by the violations and partially offset a penalty.

1. A single settlement can have multiple SEPs.
2. All prior FY dollar figures in the graph are adjusted to reflect the current value in FY 2018 dollars based on the monthly rate of inflation/deflation as determined by the U.S. Department of Labor Consumer Price Index for All Urban Consumers.

Data Source: Integrated Compliance Information System (ICIS)
Data as of: Dec-9-2018

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FY 2018 Enforcement and Compliance Annual Results

Acronyms and Descriptions for Statutes/Sections

CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act ("Superfund")
CWA	Clean Water Act
EPCRA	Emergency Planning & Community Right-to-Know Act
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
MPRSA	Marine Protection, Research, and Sanctuaries Act
RCRA	Resource Conservation & Recovery Act
SDWA	Safe Drinking Water Act
TSCA	Toxic Substances Control Act
Title 18	U.S. Criminal Code - Crimes and Criminal Procedure

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Message

From: McFaul, Jessica [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=51B00479CD7446E4AA7743028C0D8D91-MCFAUL, JES]
Sent: 2/21/2019 6:23:26 PM
To: Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]
CC: Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]
Subject: RE: following up, regarding my story on Bill Wehrum

I have everything I need and am putting together responses for review now. Stand by.

From: Hewitt, James
Sent: Thursday, February 21, 2019 12:45 PM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>
Cc: McFaul, Jessica <mcfaul.jessica@epa.gov>; Konkus, John <konkus.john@epa.gov>
Subject: RE: following up, regarding my story on Bill Wehrum

Disregard.

From: Hewitt, James
Sent: Thursday, February 21, 2019 12:44 PM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>
Cc: McFaul, Jessica <mcfaul.jessica@epa.gov>; Konkus, John <Konkus.John@epa.gov>
Subject: FW: following up, regarding my story on Bill Wehrum
Importance: High

Bill do you have time to discuss?

From: "Eilperin, Juliet" <Juliet.Eilperin@washpost.com>
Date: February 21, 2019 at 10:56:56 AM EST
To: "Konkus, John" <konkus.john@epa.gov>, "McFaul, Jessica" <Jessica.McFaul@mail.house.gov>
Subject: following up, regarding my story on Bill Wehrum

Dear John and Jessica,

I'm sorry I couldn't turn around this story earlier—I've faced that challenge of my editor leaving for vacation on Tuesday, which has complicated my week. That said, I am confident that I can turn around the story today.

A few additional questions have cropped up, both because of the Politico piece and the fact that some other documents have come up through FOIA. So here you go:

1. Can I get the exact date of when Bill signed his ethics recusal letter? I thought I had it somewhere, but right now, I can't find it. (I'm just seeing his pre-confirmation ethics letter, which he signed in late August 2017.) It was either during the second half of August 2018, or the first half of Sept. 2018.
2. Bill said that he was "recused from work on the DTE memo." Was that a determination that he made himself, or was it one made by someone in the Office of General Counsel? My editor

wanted clarity on that, and since he hadn't identified DTE or UARG in a recusal letter at that point, it's impossible to tell.

3. As far as I can tell, it was Justin Schwab, rather than an EPA ethics official, who cleared Bill to read the memo and participate in the meeting. Just let me know if there's anything inaccurate about that.
4. The Politico story says, "Wehrum told POLITICO that while he continued to work for Hunton for most of 2017, he "billed typically just a few hours a year to UARG." He said he's stayed within ethical boundaries because rules don't prohibit him from working on regulations that apply to a broad suite of players and he has not met with UARG since joining the EPA." But he did meet with UARG, on Dec. 7, 2017. So I wanted to clarify why he would say that he hasn't met with the group since joining the agency.
5. On Aug. 10, 2017, Bill sent Mandy Gunasekara a copy of the Aug. 8 DC Circuit order to hold the Clean Power Plan litigation in abeyance. Can you provide any context for why they would be emailing about that litigation, in which Hunton was involved?
6. On Aug. 18, 2017, there is another email from Bill to Mandy with a PDF, titled, "Heidi King regulation-c." Can you clarify what this email is about?
7. Did Bill raise the issue of changing the agency's interpretation of pre-construction requirements under NSR, as outlined under Dec. 7, 2017 memo that Scott Pruitt signed, before joining the agency?

I think that covers it, though I don't know if this editor will have additional questions. As I mentioned, I plan to post the story later today. Aside from a meeting at Interior from 2-3 pm, I should be pretty reachable.
Best, Juliet

Juliet Eilperin
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Washington Post
Juliet.eilperin@washpost.com
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(C Ex. 6
@eilperin

Message

From: Pritchard, Eileen [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=A396601F910B4C528707D7D3BBEB197B-EPRITCH]
Sent: 5/30/2019 7:35:02 PM
To: Wheeler, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=17a1669ef5b54fba8cb457845308787e-Wheeler, An]; Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Shaw, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31ca1476a7674825a131cb2c0d6c88c8-BShaw03]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Bennett, Tate [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1fa92542f7ca4d01973b18b2f11b9141-Bennett, El]; White, Elizabeth [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f8af641a6306479c9026142ef3b02bd7-White, Eliz]; Bodine, Susan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8c2cc6086fcc44c3be6b5d32b262d983-Bodine, Sus]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Molina, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c1d68da1a4587866e1850f22a6ae5-Molina, Mic]; Darwin, Henry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ae8e9d24eeb4132b25982e358efbd9d-Darwin, Hen]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; Benevento, Douglas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=93dba0f4f0fc41c091499009a2676f89-Benevento,]; Idsal, Anne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b1beca8121fb47a08e82b6bf2247a79b-Idsal, Anne]; Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]
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Subject: SIGNED: Modifications to Fuel Regulations to Provide Flexibility for E15; Modifications to RFS RIN Market Regulations (SAN 7137)

Attachments: E-15 rule SAN 7137.pdf

Good Afternoon.

Today, the Administrator signed the final rule entitled, **"Modifications to Fuel Regulations to Provide Flexibility for E15; Modifications to RFS RIN Market Regulations (SAN 7137)."** This action is also referred to as the President's Biofuels Reform (PBR) rule.

Consistent with the President's directive, EPA is finalizing fuel waivers to allow gasoline blended with up to 15% ethanol (E15) to take advantage of the waivers that currently apply only to gasoline with approximately 10% ethanol (E10). This would allow year-round sales of E15 rather than sales just during the non-summer months. Specifically, this waiver would provide an additional 1-pound per square inch (psi) volatility allowance (up to 10 psi of Reid Vapor Pressure) for E15. EPA is also finalizing an interpretive rulemaking to define E15 as "substantially similar" to the fuel used to certify Tier 3 motor vehicles.

In addition, EPA is finalizing revisions to the market for Renewable Identification Numbers (RINs) to increase transparency, prevent price manipulation, and enhance the Agency's RIN market monitoring capabilities. These reforms include certain public disclosure requirements, identification of corporate affiliates, consistency in transaction cost reporting, and third party monitoring. EPA is not finalizing proposed reforms #2, #3, or #4 at this time.

This rule will be effective on June 1st at the beginning of the 2019 summer gasoline season.

Attached is the signed and dated rule. For your convenience, please go to **p. 143** for the Administrator's signature.

Please contact me if you have any questions regarding this email.

Eileen Pritchard
Special Assistant: Office of the Administrator
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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 80

[EPA-HQ-OAR-2018-0775; FRL-XXXX-XX-OAR]

[RIN 2060-AU34]

Modifications to Fuel Regulations to Provide Flexibility for E15; Modifications to RFS RIN Market Regulations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: The Environmental Protection Agency (EPA) is adopting a new statutory interpretation and making corresponding regulatory changes to allow gasoline blended with up to 15 percent ethanol to take advantage of the 1-pound per square inch (psi) Reid Vapor Pressure (RVP) waiver afforded under the Clean Air Act (CAA). In doing so, EPA is finalizing an interpretive rulemaking which defines gasoline blended with up to 15 percent ethanol as "substantially similar" to the fuel used to certify Tier 3 motor vehicles. Finally, EPA is making regulatory changes to modify certain elements of the Renewable Fuel Standard (RFS) compliance system, in order to improve functioning of the renewable identification number (RIN) market and prevent market manipulation.

DATES: *Effective date of amendatory instructions*: **[INSERT DATE 30 DAYS AFTER PUBLICATION IN FEDERAL REGISTER]**, except for amendatory instructions 1-3 and 11-12, which are effective **[INSERT DATE OF FILING FOR PUBLIC INSPECTION]**. *Operational dates*: For operational purposes under the Clean Air Act, the amendments to 40 CFR part 80, subpart M and corresponding portions of the preamble are effective as of **[INSERT**

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DATE 30 DAYS AFTER PUBLICATION IN FEDERAL REGISTER], and the amendments to 40 CFR part 80, subparts B and N; corresponding portions of the preamble; and the interpretation of "substantially similar" in the appendix to this *Federal Register* notice are effective as of May 30, 2019.

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2018-0775. All documents in the docket are listed on the *https://www.regulations.gov* website. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material is not available on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically through *http://www.regulations.gov*.

FOR FURTHER INFORMATION CONTACT: Julia MacAllister, Office of Transportation and Air Quality, Assessment and Standards Division, Environmental Protection Agency, 2000 Traverwood Drive, Ann Arbor, MI 48105; telephone number: 734-214-4131; email address: *macallister.julia@epa.gov*.

SUPPLEMENTARY INFORMATION:

Effective date. Section 553(d)(1) of the Administrative Procedure Act, 5 U.S.C. § 553(d)(1), provides that final rules shall not become effective until 30 days after publication in the Federal Register "except . . . a substantive rule which grants or recognizes an exemption or relieves a restriction." The purpose of this provision is to "give affected parties a reasonable time to adjust their behavior before the final rule takes effect." *Omnipoint Corp. v. Fed. Commc'n Comm'n*, 78 F.3d 620, 630 (D.C. Cir. 1996); *see also United States v. Gavrilovic*, 551 F.2d 1099, 1104 (8th Cir. 1977) (quoting legislative history). However, when the agency grants or recognizes an exemption or relieves a restriction, affected parties do not need a reasonable time to adjust

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because the effect is not adverse. EPA is issuing this final rule under CAA sec. 307(d), which states "The provisions of section 553 through 557 . . . of Title 5 shall not, except as expressly provided in this section, apply to actions to which this subsection applies." CAA sec. 307(d)(1). Thus, APA sec. 553(d) does not apply to this rule. EPA is nevertheless acting consistently with the policies underlying APA sec. 553(d) in making a portion of this rule effective immediately. The regulatory amendments to 40 CFR part 80, subparts B and N, relieve a restriction on the sale of E15 during the period of May 1 through September 15, which the 40 CFR part 80 regulations define as the "regulatory control period." This action will enable E15 to take advantage of the 1-pound per square inch Reid Vapor Pressure waiver that currently applies to E10 during the summer months. Accordingly, it is in keeping with the policy underlying the APA for the regulatory amendments to 40 CFR part 80, subparts B and N, to take effect immediately. In addition, APA sec. 553(d) contains an exception for interpretive rules; thus, it is consistent with the APA to make the interpretation of "substantially similar" in the appendix to this *Federal Register* notice effective immediately. Finally, this CAA sec. 307(d) rule is promulgated upon signature. For operational purposes under the CAA, EPA is making the amendments to 40 CFR part 80, subparts B and N; corresponding portions of the preamble; and the interpretation of "substantially similar" in the appendix to this *Federal Register* notice effective as of May 30, 2019, which is the date of signature.

Potentially affected entities. Entities potentially affected by this final rule include those involved with the production, importation, distribution, marketing, and retailing of transportation fuels, including gasoline and diesel fuel or renewable fuels such as ethanol, biodiesel, and renewable diesel. Potentially affected categories include:

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Category	NAICS[1] Codes	SIC[2] Codes	Examples of Potentially Affected Entities
Industry	324110	2911	Petroleum refineries
Industry	325193	2869	Ethyl alcohol manufacturing
Industry	325199	2869	Other basic organic chemical manufacturing
Industry	424690	5169	Chemical and allied products merchant wholesalers
Industry	424710	5171	Petroleum bulk stations and terminals
Industry	424720	5172	Petroleum and petroleum products merchant wholesalers
Industry	454319	5989	Gasoline service stations
Industry	447190	5541	Marine service stations

[1] North American Industry Classification System (NAICS).
[2] Standard Industrial Classification (SIC).

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. This table lists the types of entities that EPA is now aware could potentially be affected by this action. Other types of entities not listed in the table could also be affected. To determine whether your entity will be affected by this action, you should carefully examine the applicability criteria in 40 CFR part 80. If you have any questions regarding the applicability of this proposed action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

Outline of this preamble

I. Executive Summary
  A. Purpose of this Action
  B. Summary of the Major Provisions of this Action
    1. E15 Reid Vapor Pressure
    2. RIN Market Reform
  C. Severability
II. Application of the 1-psi Waiver to E15
  A. Background
    1. Summary of Statutory Framework
    2. Background on Ethanol Use Over Time
    3. Background on CAA Sec. 211(h)
    4. Background of E10 and E15 CAA Sec. 211(f)(4) Waivers
  B. Interpretation of CAA Sec. 211(h)(4)
  C. Interpretation of "Substantially Similar" for Gasoline
    1. Certification Fuels
    2. History of "Substantially Similar" Interpretations
    3. Interpretation of CAA sec. 211(f)(1)

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4. Criteria for Determining Whether a Fuel is "Substantially Similar"
5. Impact of Volatility on "Substantially Similar"
6. Technical Rationale and Discussion for Tier 3 Vehicles (MY2020 and newer)
7. Technical Rationale for MY2001-2019 Light-duty Motor Vehicles
8. Technical Rationale for Other Vehicles, Engines, and Equipment
9. Limitations of "Substantially Similar" Interpretative Rulemaking
10. Implications of "Substantially Similar" Interpretation

D. Regulatory Amendments
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2. Status of Misfueling Mitigation Rule Regulations
3. Waiver Applicability

E. Expected Impact of This Rule on E15 Use
F. E15 Criteria Pollutant and Air Toxics Emission Impacts
G. E15 Economic Impacts
1. Potential Benefits of This Action
2. Costs of This Action

III. RIN Market Reforms
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B. Market Manipulation
C. Reform 1: Public Disclosure If RIN Holdings Exceed Certain Threshold
D. Reform 5: Enhancing EPA's Market Monitoring Capabilities
E. Other Reforms Proposed but Not Finalized at This Time
F. RIN Market Reform Economic Impacts
1. Benefits of RIN Market Reform
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IV. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review
B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs
C. Paperwork Reduction Act (PRA)
D. Regulatory Flexibility Act (RFA)
E. Unfunded Mandates Reform Act (UMRA)
F. Executive Order 13132: Federalism
G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks
I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use
J. National Technology Transfer and Advancement Act (NTTAA)
K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
L. Congressional Review Act (CRA)

V. Statutory Authority

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I. Executive Summary

On October 11, 2018, the President directed[1] EPA to initiate a Clean Air Act (CAA or the Act) rulemaking to extend to gasoline blends containing 15 percent ethanol by volume, commonly referred to as E15, the 1-psi (pound per square inch) Reid Vapor Pressure (RVP) waiver that currently applies to E10 (gasoline containing up to 10 percent ethanol by volume) during the summer ozone control season. The President also directed EPA to consider four reforms to the Renewable Fuel Standard (RFS) compliance system: (1) prohibiting entities other than obligated parties from purchasing separated Renewable Identification Numbers (RINs); (2) requiring public disclosure when RIN holdings held by an individual actor exceed specified limits; (3) limiting the length of time a non-obligated party can hold RINs; and (4) requiring the retirement of RINs for the purpose of compliance be made in real time.

A. Purpose of this Action

The objectives of this action are twofold. First, this rulemaking will take steps intended to create parity in the way the RVP of both E10 and E15 fuels is treated under EPA regulations. Second, this action finalizes reforms to RIN regulations intended to increase transparency and deter potential manipulative and anti-competitive behaviors in the RIN market.

Further, in promulgating this rule, EPA is seeking to take justified actions to remove barriers which unnecessarily limit the potential growth in biofuel consumption, much as it did in 1987 for the original 1-psi waiver as markets were evolving. As is also clear from the text of the Energy Independence and Security Act of 2007, and the associated 36 billion gallon mandate by 2022, that Congress intended to promote and accommodate expanded biofuel use and outlined

[1] See President Donald J. Trump Is Expanding Waivers for E15 and Increasing Transparency in the RIN Market: *https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-expanding-waivers-e15-increasing-transparency-rin-market.*

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greenhouse gas savings. While this rule alone is not expected to increase E15 the availability of, it removes one barrier to such an outcome.

B. Summary of the Major Provisions of this Action

1. E15 Reid Vapor Pressure

We are modifying the volatility requirements for E15 during the summer season or the period of May 1 through September 15.[2,3] The changed volatility provisions for these blends will allow E15 to receive the benefit of the provision at CAA sec. 211(h)(4), commonly referred to as "the 1-psi waiver." The 1-psi waiver allows gasoline-ethanol blends to have a higher RVP[4] than

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[2] For purposes of this preamble, E15 refers to gasoline-ethanol blended fuels that contain greater than 10 volume percent and no more than 15 volume percent ethanol content. Under EPA regulations at 40 CFR part 80, we broadly define gasoline as "any fuel sold in any State for use in motor vehicles and motor vehicle engines, and commonly or commercially known or sold as gasoline." We have also clearly stated that any fuel that is predominantly gasoline is considered gasoline for purposes complying with EPA's fuels regulations at 40 CFR parts 79 and 80 and relevant provisions under the CAA (see 79 FR 23557 (April 28, 2014) and 81 FR 80841-80843 (November 16, 2016)). Gasoline-ethanol blended fuels (referred to as "gasoline-ethanol blends" in this action) are fuels under the CAA and gasoline-ethanol blended fuels containing no more than 50 volume percent ethanol are defined as gasoline under EPA's regulations. This preamble sometimes refers to gasoline or to gasoline-ethanol blended fuels in terms of the ethanol content of the fuel (e.g., "E10" or "E15"). At other times, this preamble uses the term gasoline to be inclusive of all fuels that are predominantly composed of gasoline, which would include, but is not limited to, all gasoline-ethanol blended fuels containing no more than 50 volume percent ethanol.

[3] CAA sec. 211(h)(1) requires EPA to establish volatility requirements—that is, a restriction on Reid Vapor Pressure (RVP)—during the high ozone season. To implement these requirements, EPA defines "high ozone season" at 40 CFR 80.27 as the period from June 1 to September 15. The regulations at 40 CFR 80.27 also specify that all parties except for retailers must make and distribute gasoline meeting the RVP standards at 40 CFR 80.27 from May 1 through September 15 and calls this period the "regulatory control period." The E15 partial waivers impose the 9.0 psi RVP limit on E15 from May 1 through September 15. See 75 FR 68094 (November 4, 2010) and 76 FR 4662 (January 26, 2011). In general practice by industry and for purposes of this preamble, the high ozone season and regulatory control period is referred to as the "summer" or "summer season" and gasoline produced to be used during the regulatory control period and high ozone season is called "summer gasoline." EPA's regulations do not impose any volatility requirements on any type of blend of gasoline outside of the summer season.

[4] RVP is a measure of the volatility of gasoline. Gasoline must have volatility in the proper range to prevent driveability, performance, and emissions problems. If the volatility is too low, the gasoline will not ignite properly; if the volatility is too high, the vehicle may experience vapor lock. Importantly for this rule, excessively high volatility also leads to increased evaporative emissions from the vehicle. Vehicle evaporative emission control systems are designed and certified on gasoline with a volatility of 9.0 psi RVP. Higher volatility gasoline may overwhelm the vehicle's evaporative control system, leading to a condition described as "breakthrough" of the cannister and mostly uncontrolled evaporative emissions. The regulations at 40 CFR part 86 defines evaporative emissions as "hydrocarbons emitted into the atmosphere from a motor vehicle, other than exhaust and crankcase emissions." For purposes of this preamble, evaporative emissions are generally referring to volatile organic compounds (VOCs) present in gasoline that evaporate within the fuel system. This differs from tailpipe or exhaust emissions which are defined under the regulations at 40 CFR part 86 as "substances emitted to the atmosphere from any opening downstream from the exhaust port of a motor vehicle engine." For purposes of this preamble, when we

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would be allowed under CAA sec. 211(h)(1) and the corresponding volatility provisions, which prohibit the RVP of gasoline from exceeding 9.0 psi during the summer.[5] Under EPA's previous interpretation of CAA sec. 211(h)(4), and corresponding regulations, only blends of ethanol and gasoline containing at least 9 percent and no more than 10 percent ethanol by volume (E10) were granted the 1-psi waiver.

EPA is finalizing three steps to accomplish this change. First, we are adopting a new interpretation of CAA sec. 211(h)(4). Second, we are finalizing two approaches to address CAA sec. 211(f). In the first of these approaches, we find that E15 is "substantially similar" (sub sim) to Tier 3 E10 certification fuel for use in MY2001 and newer light-duty vehicles.[6] In the second of these approaches, we maintain our interpretation of CAA sec. 211(f), making it clear that the conditions on the CAA sec. 211(f)(4) waivers granted to E15 in 2010 and 2011 do not restrict the application of the 1-psi waiver to downstream oxygenate blenders in most circumstances. Third and finally, we are modifying our regulations to effect two changes: (1) remove limitations in our regulations on the volatility of E15 promulgated in the E15 Misfueling Mitigation Rule ("MMR") that were put in place in keeping with the prior interpretation of CAA sec. 211(h)(4);[7] and (2) modify the associated product transfer document (PTD) requirements also promulgated in the MMR.

As a result of this action, parties will be able to make, distribute, and sell E15 made with the same conventional blendstock for oxygenate blending (CBOB)[8] that is used to make E10 by

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refer to exhaust emissions, we are generally referring to exhaust emissions that are controlled in motor vehicles under Title II of the Clean Air Act.

[5] In a few areas, specified at 40 CFR 80.27, the RVP standard is 7.8 psi. In these areas, after application of the 1-psi waiver, gasoline-ethanol blended fuels covered by the 1-psi waiver could have an RVP of up to 8.8 psi.

[6] EPA last issued an interpretative rulemaking for what it considers sub sim for gasoline in 2008. See 73 FR 22281 (April 25, 2008).

[7] See 76 FR 44406 (July 25, 2011).

[8] CBOB is the base gasoline typically made for blending with 10 percent ethanol in conventional gasoline areas of the country.

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oxygenate blenders during the summer.[9] E15 will be held to the same gasoline volatility standards that currently apply to E10, maintaining substantially the same level of emissions performance as E10 since E15 made from the same CBOB as is used to make E10 during the summer would have slightly lower RVP than E10 and would be expected to have similar emissions performance as discussed in Sections II.C and II.E.

2. RIN Market Reform

EPA takes claims of RIN market manipulation seriously. Though, as stated in the proposal and reaffirmed in this action, we have yet to see data-based evidence of such behavior, the potential for manipulation is a concern. Accordingly, we are finalizing two reforms to increase our market monitoring capabilities, bring more transparency to the RIN market, and discourage RIN holdings in excess of normal business practices. Specifically, we are finalizing the following RIN market reforms:

- Requiring public disclosure when RIN holdings held by an individual actor exceed specified limits.
- Requiring the reporting of additional price and affiliate data to EPA.

First, we are finalizing two RIN holding thresholds that will work in tandem to discourage potential accumulation of market power. These thresholds will apply to holdings of separated D6 RINs only.[10] If a non-obligated party's end-of-day separated D6 RIN holdings

[9] As previously noted, EPA's regulations do not impose any volatility requirements on any type of blend of gasoline outside of the summer season. EPA does not have volatility limitations on gasoline outside of the summer season. Therefore, E15 can already be made from the same CBOB used to produce E10 outside of the summer season. The rest of the year (outside of the summer season) is commonly referred to as the "winter season" or "winter."

[10] RINs specify a "D-code" corresponding to the renewable fuel category applicable to the fuel, as determined by the feedstock used, fuel type produced and GHG emissions of the fuel, among other characteristics. There are five different D-Codes for RINs in the RFS program. D3 RINs are cellulosic biofuel RINs. D4 RINs are biomass-based diesel (including both biodiesel and renewable diesel) RINs. D5 RINs are advanced biofuel RINs. D6 RINs are conventional biofuel RINs (primarily corn ethanol). D7 RINs are cellulosic diesel RINs which meet the requirements for both cellulosic biofuel and biomass-based diesel.

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exceed three percent of the total implied conventional biofuel volume requirement, it has triggered the primary threshold. If an obligated party's end-of-day separated D6 RIN holdings exceed three percent of the total implied conventional biofuel volume requirement and exceed 130 percent of its individual implied conventional renewable volume obligation (RVO), it has triggered the secondary threshold. We are requiring that parties make calculations of daily RIN holdings and report new information in a quarterly report, including a yes/no certification statement about exceeding the threshold and a list of all RIN-holding corporate affiliates and all contractual affiliates. We will publish on our website the names of any parties that report exceeding the thresholds.

Second, we are finalizing additional reporting requirements that will enhance EPA's oversight capabilities of RIN market behavior. We are finalizing requirements for parties to follow certain conventions when reporting RIN prices to EPA and to report whether the RIN transaction was on the spot market or as a result of a term contract.

Third, we are confirming our intention to take non-regulatory steps after promulgation of this action to update business rules in EMTS to require that both parties in a RIN transaction enter the same RIN price and to employ a third-party market monitor to conduct analysis of the RIN market, including screening for potential anti-competitive behavior. We intend to incorporate new information reported to EPA as a result of this rulemaking into such RIN market analysis.

Finally, we are not taking final action on three of the reforms that were proposed. These reforms are related to RIN retirement frequency, limitations on the parties that can purchase a D6 RIN, and the duration parties can hold D6 RINs. We have decided to defer the decision on whether or not to finalize these three proposed reforms as we conduct more thorough analyses of

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the RIN market and of the manipulation concerns presented by some stakeholders, with help from a third party. If, after reviewing that data and conducting additional market analysis, we determine that it would be prudent to finalize one or more of these proposed reforms in the future, we will share the analysis that has led us to believe it could be appropriate and will allow time for parties to comment before we proceed with a final rule.

C. *Severability*

The actions we are taking with regard to Section II are made pursuant to our authority under CAA secs. 211(c), 211(f), and 211(h). The actions we are taking with regard to Section III are made pursuant to our authority under Clean Air Act sec. 211(o). We consider Section II and the regulatory provisions we are finalizing under 40 CFR part 80, subparts B and N, to be severable from Section III and the regulatory provisions we are finalizing under 40 CFR part 80, subpart M, as these are two separate actions, each of which operates independently from the other.

II. Application of the 1-psi Waiver to E15

In this action, we are finalizing changes to the volatility provisions for E15 during the summer season based on revised interpretations of CAA sec. 211(h)(4) and CAA sec. 211(f). The changed volatility provisions for E15 will apply the 1-psi waiver to E15 pursuant to CAA sec. 211(h)(4). This provision allows certain gasoline-ethanol blends to have a higher RVP than would otherwise be allowed under CAA sec. 211(h)(1) and the corresponding volatility regulations that prohibit the RVP of gasoline from exceeding 9.0 psi during the summer. Prior to this rulemaking, EPA's interpretation of the statute and the corresponding regulations only applied the 1-psi waiver to gasoline-ethanol blends containing at least 9 percent and no more than 10 volume percent ethanol. The interpretation in this action represents a change in EPA's

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prior interpretation and, as explained in more detail below, is appropriate in light of the increased presence of E15 in the gasoline marketplace. This interpretation is further supported by the fact that the conditions that led us to provide the original 1-psi waiver for E10 in 1990 are equally applicable to E15 today.

The volatility of E15 is also limited by CAA sec. 211(f). CAA sec. 211(f) prohibits the introduction into commerce of fuels and fuel additives unless they either: (1) are substantially similar to fuels or fuel additives utilized in the certification of motor vehicles, or (2) receive a waiver from the sub sim requirement in accordance with CAA sec. 211(f)(4). EPA granted E15 CAA sec. 211(f)(4) waivers in 2010 and 2011, subject to certain conditions. Under the waiver conditions, the RVP limit for E15 is 9.0 psi from May 1 through September 15. In order to effectuate the 1-psi waiver under CAA sec. 211(h)(4) and permit the introduction of E15 at the higher RVP level into commerce, we are addressing the statutory provisions under both CAA sec. 211(f) and (h).

As discussed in Section I, we are taking this action in response to the Presidential Directive to provide E15 the 1-psi waiver. All actions we are taking under both CAA sec. 211(h) and CAA sec. 211(f)(1) are in furtherance of that goal. EPA is taking several steps to provide E15 the 1-psi waiver. First, we are finalizing our proposed interpretation of CAA sec. 211(h)(4). Under this new interpretation, gasoline-ethanol blends containing at least 10 percent ethanol that are either substantially similar under CAA sec. 211(f)(1) or that have been granted a waiver under CAA sec. 211(f)(4) would receive the 1-psi waiver, including E15.[11]

[11] While any gasoline-ethanol blend containing at least 10 percent ethanol would receive the 1-psi waiver, that does not mean that gasoline-ethanol blends higher than E15 can be introduced into commerce at 10.0 psi. As discussed further below, in order for these fuels to be introduced into commerce, they must be substantially similar to certification fuel or obtain a waiver from the substantially similar requirement. Therefore, once this action is finalized, only E10 and E15 may be introduced into commerce at 10.0 psi.

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Second, we are finalizing an interpretative rulemaking that defines E15 with an RVP of 9.0 psi RVP in the summer as sub sim to the fuel utilized to certify Tier 3 vehicles when used in model year (MY) 2001 and newer light-duty motor vehicles, subject to certain criteria. After application of the CAA sec. 211(h)(4) 1-psi waiver, this new definition of sub sim will allow E15 to be introduced into commerce with an RVP of 10.0 psi during the summer. Additionally, we maintain our interpretation of CAA sec. 211(f), making it clear that the conditions on the CAA sec. 211(f)(4) waivers granted to E15 in 2010 and 2011 do not restrict the application of the 1-psi waiver to downstream oxygenate blenders in most circumstances.

Third, to effectuate our new interpretations under CAA sec. 211(h) and 211(f)(1), we are finalizing the following changes to EPA's fuels regulations: (1) removing limitations on the volatility of E15 in our regulations, that were put in place to implement the prior interpretation of CAA sec. 211(h)(4); and (2) modifying the associated Product Transfer Document ("PTD") requirements.[12]

The actions we are taking, including those pursuant to our authorities under CAA secs. 211(f) 211(h), are all taken to establish a single, unified program that allows the introduction into commerce of E15 at 10.0 psi RVP during the summer driving season. For example, the actions we are taking under CAA sec. 211(f) are directly related to our new interpretation of CAA sec. 211(h)(4), and in the absence of this new CAA sec. 211(h)(4) interpretation, we would not be taking these actions. Additionally, the restrictions adopted as part of the E15 sub sim determination under CAA sec. 211(f)(1) are necessary to prevent the use of E15 in vehicles, engines, and equipment other than MY2001 and newer light-duty vehicles, and absent those

[12] We also find that our existing understanding of the statute that CAA sec. 211(f), generally, and any waiver conditions imposed under CAA sec. 211(f)(4) more specifically, only apply to fuel and fuel additive manufacturers and thus provide an additional basis for the regulatory changes we are making in this action.

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restrictions and the limited nature of the sub sim determination, we would not consider E15 to be sub sim to Tier 3 certification fuel. Finally, our amendments to 40 CFR part 80 subparts B and N are pursuant to our actions under CAA secs. 211(f) and (h)(4). In sum, all actions we are taking today constitute a single, cohesive effort, and as such we do not intend for any of these individual actions to be severable. In the event it is determined we lack authority to adopt any element of this program, EPA believes the other elements of the program cannot be justified in isolation.

The following subsections provide further details on these changes, as well as discussions on the potential effects of this action on emissions and the economy. First, we provide background on both the relevant statutory provisions and the history of gasoline-ethanol blends in the fuel marketplace. We then discuss our new interpretation of CAA sec. 211(h), under which the 1-psi waiver applies to blends up to E15. Third, we provide a discussion of our new definition of "substantially similar" under CAA sec. 211(f)(1) and its application to E15. Finally, we provide discussion of the potential economic and environmental impacts of this action.

A. Background

The discussion below provides general background explaining the CAA provisions that are relevant to this action, as well as a description of prior EPA actions taken under those provisions. It also provides background on the presence of ethanol in the fuels marketplace.

1. Summary of Statutory Framework

The Air Quality Act of 1967 and the CAA of 1970 established the basic framework for EPA's fuels regulations. CAA sec. 211(a) allows EPA to designate fuels and fuel additives for registration. CAA sec. 211(b) sets forth registration requirements for fuels and fuel additives and authorizes EPA to require health and environmental effects testing for the registration of fuels

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and fuel additives. CAA sec. 211(c) authorizes EPA to regulate or prohibit fuels or additives for use in motor (or nonroad) vehicles or engines if: (A) "any fuel or fuel additive or any emission product of such fuel or fuel additive causes, or contributes, to air pollution . . . that may reasonably be anticipated to endanger the public health or welfare," or (B) "if emission products of such fuel or fuel additive will impair to a significant degree the performance of any emission control device or system." CAA sec. 211(c) also provides that in order to place a control or prohibition on a fuel or fuel additive under clause (A), EPA must consider "all relevant medical and scientific evidence available . . . including consideration of other technologically or economically feasible means of achieving emission standards." In order to place a control or prohibition on a fuel or fuel additive under clause (B), EPA must consider "available scientific and economic data, including a cost benefit analysis comparing emission control devices or systems which are or will be in general use and require the proposed control" and those that do not require the proposed control.

In the CAA Amendments of 1977, Congress established CAA sec. 211(f)(1), which prohibits manufacturers from first introducing into commerce any fuel or fuel additive for general use in light-duty vehicles that is not "substantially similar to any fuel or fuel additive utilized in the certification of any model year 1975, or subsequent model year, vehicle." In a report accompanying the enactment of this provision in addition to 211(c), Congress explained that "the intention of this [section] is to prevent the use of any new or recently introduced additive in those unleaded grades of gasoline . . . which may impair emission performance of vehicles."[13] The Senate Report also states that the sub sim provision was enacted in recognition that "due to the delay associated with statutory procedural safeguards of [CAA sec. 211(c)]"

[13] See S. Rep. 95-127 (95th Congress, 1st Session) at 90-91. See also *Motor Vehicle Manufacturers Association of the U.S., Inc. v. EPA*, 768 F.2d 385, 390 n.7 (D.C. Cir. 1985).

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parties could introduce fuel with negative impacts on emission controls before a CAA sec. 211(c) action could be completed.[14]

If a fuel or fuel additive is not sub sim, a fuel or fuel additive manufacturer may obtain a waiver under CAA sec. 211(f)(4)[15] if the manufacturer can demonstrate that the new fuel or fuel additive "will not cause or contribute to a failure of any emission control device or system (over the useful life of the motor vehicle, motor vehicle engine, nonroad engine, or nonroad vehicle in which such device or system is used) to achieve compliance by the vehicle or engine with the emission standards with respect to which it has been certified." Together, CAA sec. 211(f)(1) and (f)(4) prevent fuels and fuel additives from being introduced into commerce that would degrade the emission performance of the existing fleet and protect vehicle manufacturers from their vehicles consequently failing emission standards in use.

In the CAA Amendments of 1990, Congress added CAA sec. 211(f)(1)(B), which extends the prohibition from first introduction into commerce to "any fuel or fuel additive for use by any person in motor vehicles manufactured after model year 1974 which is not substantially similar to any fuel or fuel additive utilized in the certification of any model year 1975, or subsequent model year vehicle, or engine."[16]

Also, in the CAA Amendments of 1990, Congress added CAA sec. 211(h) to address the volatility of gasoline, which largely codified EPA's then-new RVP regulations.[17] Accordingly,

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[14] Id.

[15] Quoted above is the current formulation of CAA sec. 211(f)(4). When enacted in 1977, the waiver provision stated a waiver could be granted "if [the administrator] determines that the applicant has established that such fuel or fuel additive or a specified concentration thereof, and the emission products of such fuel or fuel additive or specified concentration thereof, will not cause or contribute to a failure of any emission control device or system (over the useful life of any vehicle in which such device or system is used) to achieve compliance by the vehicle with the emission standards with respect to which it has been certified pursuant to section 206." See CAA Amendments of 1977.

[16] See 75 FR 68094, 68145 (Nov. 4, 2010).

[17] See 54 FR 11868 (March 22, 1989) (Phase I) and 55 FR 23658 (June 11, 1990) (Phase II).

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entirely separate from CAA sec. 211(f), CAA sec. 211(h)(1) prohibits the sale of gasoline with an RVP in excess of 9.0 psi during the high ozone season (while allowing EPA to promulgate more stringent RVP requirements for nonattainment areas),[18] and CAA sec. 211(h)(4) provides a 1.0 psi RVP allowance for "fuel blends containing gasoline and 10 percent" ethanol.

Relevant to our discussion of CAA sec. 211(f)(1) are CAA sec. 206 and 213. These provisions provide EPA with authority to establish vehicle and engine certification procedures; CAA sec. 213 also provides EPA with authority to establish emissions standards. CAA sec. 206, "Motor vehicle and motor vehicle engine compliance testing and certification," authorizes EPA to established methods and procedures for testing whether a motor vehicle or motor vehicle engine conforms with our motor vehicle emissions standards promulgated under CAA sec. 202. CAA sec. 213, enacted in the CAA Amendments of 1990, authorizes EPA to promulgate regulations containing emissions standards for nonroad engines and nonroad vehicles.

In the Energy Policy Act of 2005 ("EPAct") Congress added sec. 211(o) to the CAA creating the Renewable Fuel Standard (RFS), and then in the Energy Independence and Security Act of 2007 ("EISA") modified and greatly expanded the program. The RFS program places obligations on refiners and importers to expand the use of renewable fuels such as ethanol in the nation's fuel supply.

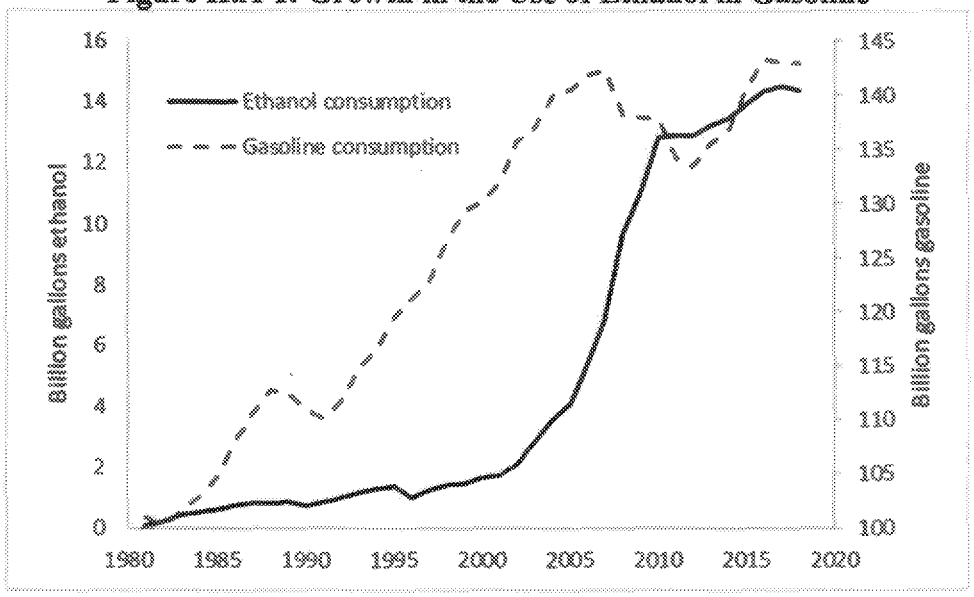
2. Background on Ethanol Use Over Time

Prompted by concerns about reliance on foreign sources of oil and a desire to support domestic agriculture, several corn-based ethanol plants were constructed in the 1970s. In 1978, after a CAA sec. 211(f)(4) waiver application was submitted for E10, E10 was granted a CAA

[18] A "nonattainment area" is an area designated as not meeting a National Ambient Air Quality Standard, or as contributing to another, nearby area's failure to meet such standard. See generally CAA sec. 107.

sec. 211(f)(4) waiver by operation of law.[19] The CAA sec. 211(f)(4) waiver along with an excise tax exemption for gasoline containing ethanol resulted in the growth in the production of ethanol through the mid-1980s at the rate of about 100 million gallons per year. In the years following, ethanol use in gasoline continued to grow as a result of a combination of state and federal programs and policies, as well as favorable market conditions, until essentially all gasoline contained 10% ethanol by around 2013.

Figure II.A-1: Growth in the Use of Ethanol in Gasoline



In the 1980s, to make E10, or "gasohol" as it was known at the time, ethanol was "splash blended" into previously certified gasoline. "Splash blending" occurred when tanker trucks were filled up to 90 volume percent with gasoline at a gasoline terminal and then driven to an ethanol tank (at the gasoline terminal or at another location) to be filled with 10 volume percent ethanol. Mixing was assumed to take place as the truck drove to the retail station.[20] In 1987, when EPA

[19] See 44 FR 20777 (April 6, 1979). Under the CAA as it existed in 1978, unless EPA acted to deny a waiver application within 270 days, the waiver was deemed granted by operation of law. See 42 U.S.C. 7545(f)(4) (1978). In EISA, Congress revised this provision; under the statute as it now exists, EPA shall take final action to grant or deny an application after public notice and comment within 270 days of receipt, but does not automatically grant applications upon agency inaction.
[20] 52 FR 31292 (August 19, 1987).

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first proposed the 1-psi RVP waiver for E10, just over 800 million gallons of ethanol was blended into gasoline. Assuming it was all blended at 10 percent, E10 represented just over 7 percent of the gasoline consumed in the U.S. This limited the impact of the 1-psi RVP waiver to a small portion of the fuel pool. Growth in ethanol use slowed between 1988 and 1990 as the volume of methyl tertiary butyl ether (MTBE) as a gasoline additive rose to provide octane and oxygen content to gasoline in lieu of ethanol.

In 1989, the first phase of the federal volatility standards went into effect.[21] Gasoline containing about 10% ethanol was simultaneously granted a 1-psi RVP waiver, such that continued use of E10 did not require the production and distribution of a special low-RVP gasoline blendstock for subsequent blending with ethanol. This allowed the practice of splash blending of ethanol to continue. At the time, gasohol also had a tax credit through which Congress intended to encourage the use of ethanol as a means of reducing dependence on foreign oil and making use of excess agricultural production.[22] Neither the Phase I (1989) nor the Phase II (1990 and thereafter) volatility standards appeared to have any direct impact on the magnitude of ethanol use. In 1991, we promulgated regulations in response to the CAA Amendments of 1990 that implemented the statutory 1-psi waiver. We again did not see significant impacts on ethanol use.

In 1992, the winter oxygenated fuels ("oxyfuels") program for carbon monoxide (CO) nonattainment areas began as mandated by the CAA Amendments of 1990.[23] This program required the use of at least 2.7 percent by weight oxygen in gasoline, equivalent to about 15

[21] See 54 FR 11868 (March 22, 1989).
[22] Id.
[23] CAA sec. 211(m).

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volume percent MTBE or 7.8 volume percent ethanol in those areas.[24] The use of both ethanol and MTBE as gasoline additives grew over the next several years under the influence of the oxyfuels program, with ethanol reaching 1.3 billion gallons and E10 representing approximately 11 percent of all gasoline in 1994 (assuming all the ethanol was blended to make E10).

The reformulated gasoline (RFG) program, also enacted under the CAA Amendments of 1990, began in 1995 and applied to severe and extreme ozone nonattainment areas.[25] It required the use of at least 2.1 weight percent oxygen on average, equivalent to 11.6 volume percent MTBE or 6.0 volume percent ethanol.[26] Due to the summer volatile organic compounds (VOC) emissions standards for RFG, the 1-psi waiver for ethanol blends was effectively not applicable. This is because the gasoline-ethanol blends would not meet the summer VOC emission standards at the higher RVP. Thus ethanol blending into RFG required the production and distribution of a special low-RVP gasoline blendstock, referred to as reformulated blendstock for oxygenate blending (RBOB), into which ethanol could be blended at the terminal.[27] Perhaps due to this, and the relative ease of blending MTBE, ethanol's use in RFG was limited, and growth in the use of ethanol as a gasoline additive was more limited in the years after 1995 than it would have been if MTBE had not been available as an alternative to ethanol. By the year 2000, ethanol use had grown to 1.7 billion gallons, with E10 representing about 13% of all gasoline (assuming all ethanol was blended to make E10). The practice of blending ethanol had also evolved from simple splash blending, to ethanol being metered into transport trucks at the 10% rate along with

[24] Where allowed, ethanol was typically blended at 10 percent to take advantage of the 1-psi waiver, in both nonattainment and attainment areas.
[25] See, generally, CAA sec. 211(k).
[26] Again, ethanol was typically blended at 10 percent where allowed to take advantage of the 1-psi waiver.
[27] Because ethanol was high in octane, RBOB was also made to a lower octane specification in order to reduce costs.

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gasoline at the gasoline terminal; into RBOB in RFG areas; and into conventional gasoline ("CG") in other areas.

Beginning in the early 2000s, concerns about leaking underground storage tanks and groundwater contamination led several states to ban the use of MTBE as a gasoline additive. The use of MTBE as a gasoline additive began falling in 2002, with its volume being replaced essentially 1:1 with ethanol in RFG areas. EPAct in 2005 removed the oxygenate mandate for RFG and replaced it with the Renewable Fuel Standard (RFS). By this time, refiners had already removed essentially all MTBE from RFG and replaced it with ethanol. This initially involved shifting much of the existing discretionary blending of ethanol in CG areas to RFG, until ethanol production and distribution capacity could increase to supply both the CG and RFG markets. By 2007, MTBE was rarely used, and coupled with the ongoing excise tax credit for ethanol, and the certainty of the Renewable Fuel Standard (RFS) mandate, ethanol's use rose significantly to 6.9 billion gallons by 2007, with E10 representing nearly half of all gasoline (assuming that all of the ethanol was blended to make E10).

In the following years, a combination of factors continued to create ongoing incentives for the rapid growth of E10, including rising crude oil prices, the expansion of the RFS program with the passage of EISA, and California's Low Carbon Fuel Standard (LCFS). With E10 comprising the majority of gasoline produced and distributed nationwide, refiners began producing not only low RVP/low octane RBOB for blending with ethanol in RFG areas at downstream terminals, but also a low octane conventional blendstock for oxygenate blending (CBOB) for blending CG with ethanol. By 2013, the pipeline distribution systems had switched over to transporting only CBOB for the production of conventional gasoline, forcing all refiners to harmonize around their production, and necessitating that 10 percent ethanol be added at

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downstream terminals in order for conventional gasoline to meet its octane and other specifications at retail. Essentially all gasoline, both reformulated and conventional, was E10 by this time, and total ethanol consumption was 13.2 billion gallons.

Similar to E10 in the 1970's, E15 has begun to slowly enter the marketplace. In October 2010, EPA partially approved a waiver request from Growth Energy allowing the introduction of E15 into commerce for use in model year 2007 and newer light-duty motor vehicles, subject to several conditions.[28] In January 2011, EPA extended this partial waiver to include model year 2001-2006 light-duty vehicles, allowing the use of E15 in model year 2001 and newer light-duty motor vehicles.[29] Since these partial waivers required E15 to meet a 9.0 psi RVP standard, in contrast to the 10.0 psi RVP standard E10 had to meet in the summer, introduction into commerce of E15 into CG areas required that CBOB for use to make E15 have a lower RVP than typically available.[30] This is similar to the situation faced by E10 in 1987. In the years since the E15 waivers were granted, the number of retail stations offering E15 has grown slowly, reaching

[28] 75 FR 68094 (November 4, 2010).
[29] 76 FR 4662 (January 26, 2011).
[30] Since RBOB was already sub-RVP, E15 could use the same RBOB already produced and distributed for E10 in RFG areas.

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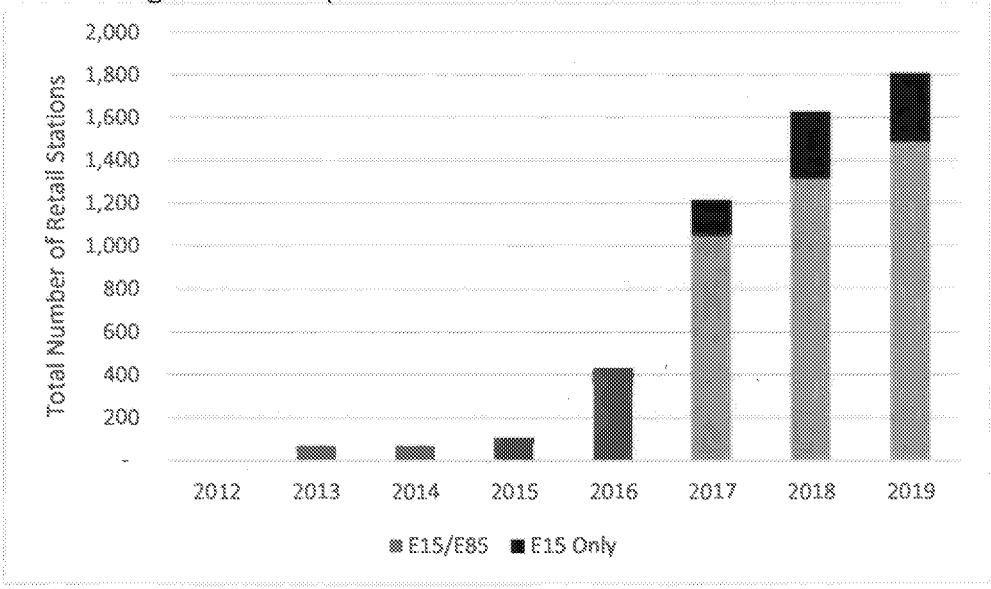
1,293 registered stations[31] (less than 1 percent of all retail stations) in May 2019.[32] Figure II.A-2 shows the growth of E15 stations since 2012.[33]

Figure II.A-2: Growth in E15 Retail Stations over Time



While there are no reliable statistics on the volume of E15 produced and distributed from these stations, it has remained small, with little overall impact on ethanol use. In coming years, if

[31] The regulations at 40 CFR 80.1502 require that parties that produce E15 and ethanol for use in the production of E15 to participate in a survey of retail stations to ensure compliance with E15 misfueling mitigation requirements. As part of this process, these parties register with the RFG survey association, the independent surveyor that currently conducts the E15 survey. This registration with RFGSA includes information related to the number of E15 stations at which E15 is going to be sold. More information on RFGSA is available at: *http://rfgsa.org*.Growth Energy in comment also estimates this number at nearly 1,800 stations in 31 states. See Comments from Growth Energy, pg. 1. See also "New Mexico Becomes 31st State to Add E15 Choice at the Pump," available at: *https://growthenergy.org/2019/05/01/growth-energy-new-mexico-becomes-31st-state-to-add-e15-choice-at-the-pump.*

[32] Much of this growth has been driven by USDA's Biofuel Infrastructure Program (BIP). In October 2015, USDA announced that the BIP was investing a total of $210 million, including money from USDA and matching commitments from states and private entities, to increase the number of retail stations offering E15 and other higher level gasoline-ethanol blends. These grants were intended to result in an additional 1,486 stations selling E15. In addition to BIP, Prime the Pump, a nonprofit organization supporting the expanded availability of E15, has provided funds to retail stations to add the necessary infrastructure to offer E15. This data demonstrates that a very high proportion of the stations currently offering E15 have received funding from federal, state, and/or industry sources. It also suggests that increasing the rate of growth of E15 stations in the future may require the availability of funds from such sources.

[33] See "Data for Growth in E15 Retail Stations over Time from Growth Energy" in the docket. EPA-HQ-OAR-2018-0775.

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gasoline demand falls as projected by the U.S. Energy Information Administration (EIA),[34] growth in E15 would help offset a portion of the drop in ethanol use from declining E10 gasoline sales. The extension of the 1-psi RVP waiver to E15 in this action may help this, although there remain considerable other barriers as discussed in Section II.E, such that we do not project this action alone will meaningfully impact E15 sales in the coming years.

For reasons expanded upon in Section II.E (e.g., consumer acceptance of E15 and demand for E10 in vehicles and engines not permitted to use E15), we believe marketers and retailers of gasoline will not be able to exclusively market E15 and will continue to offer E10 as the predominant fuel for the foreseeable future.

3. Background on CAA Sec. 211(h)

To properly understand this action, it is important to review the history of EPA's volatility controls both leading up to and after the enactment of CAA sec. 211(h). As mentioned above, Congress enacted CAA sec. 211(h) as part of the CAA Amendments of 1990 to address the volatility of gasoline. Congress did so in the context of EPA's prior regulatory actions, under CAA sec. 211(c), which aimed to control the RVP of gasoline. EPA has historically viewed Congress's enactment of 211(h), therefore, as a codification of EPA's regulatory actions regarding RVP up to that point.[35] Accordingly, CAA sec. 211(h)(1) prohibits the sale of gasoline with an RVP in excess of 9.0 psi[36] during the high ozone season while CAA sec. 211(h)(2) allows EPA to promulgate more stringent RVP requirements for nonattainment areas. CAA sec. 211(h)(4) provides a 1.0 psi RVP allowance for "fuel blends containing gasoline and 10 percent" ethanol and recognizes the existence of the 1979 CAA sec. 211(f)(4) waiver for E10—the only

[34] See "Updated market impacts of biofuels in 2019," Docket Item No. EPA-HQ-OAR-2018-0167-1330.
[35] See 76 FR 44433 (July 25, 2011).
[36] 9.0 psi RVP was and continues to be the level of RVP for gasoline certification fuel used to certify motor vehicles.

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ethanol blend which had received such a waiver at that time—in the "deemed to comply" provisions contained in CAA sec. 211(h)(4)(A)-(C), which are discussed in more detail below.

a. Pre-Enactment Volatility Regulations

In 1987, prior to the CAA Amendments of 1990, EPA for the first time proposed limitations on the volatility of gasoline under CAA sec. 211(c), which provides EPA with general authority to regulate fuels and fuel additives. These limitations on gasoline volatility were proposed to address evaporative emissions from gasoline-fueled vehicles due to their contribution to ozone formation. The volatility of gasoline had begun rising significantly above the 9.0 psi RVP vehicle certification fuel level in the years preceding EPA's action, due to a strong economic incentive to add butane[37] to fuel due to favorable blending economics.[38] This led to very high evaporative VOC emissions from the in-use fleet of gasoline vehicles. EPA believed that matching the volatility of in-use gasoline to that of certification fuel would reduce evaporative emissions and would help ensure that the vehicles continued to have the same evaporative emissions levels in-use to the levels on which the vehicles were certified. In particular, limiting the volatility of gasoline to 9.0 psi RVP in the summer, which is the level in the indolene, a gasoline containing no ethanol, on which vehicles were certified under CAA sec. 206 at that time, would reduce emissions from all gasoline-related sources, enabling additional VOC emission reductions.[39]

At the time of the 1987 proposal, parties were primarily making E10 through "splash blending," as described above. Adding 10 percent ethanol to gasoline, however, causes roughly a

[37] Butane, in this context, refers to a high-volatility, relatively inexpensive gasoline blendstock that gasoline refiners typically add to or remove from gasoline to control RVP.
[38] 52 FR 31279 (August 19, 1987).
[39] See 52 FR 31274 at 31278-31287 (August 19, 1987).

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1.0 psi RVP increase in the blend's volatility.[40] At the time, due to the limited amount of ethanol blended into gasoline, almost no low-RVP gasoline was available into which 10 percent ethanol could be splash-blended without the blended fuel exceeding the proposed RVP limit. Thus, even though the CAA sec. 211(f)(4) waiver allowed E10 to be lawfully introduced into commerce, the lowered RVP standards had the potential to shut down the nascent ethanol blending industry.

To address this potential hurdle to continued ethanol blending, in the 1987 proposal, EPA included interim regulations for gasohol that allowed it to be 1.0 psi RVP higher than otherwise required for gasoline.[41] In describing our regulatory action to provide this flexibility, we refer to it as the 1-psi RVP allowance.[42] As a result, downstream blenders could add 10 percent ethanol into the gasoline that refineries had already produced without violating the proposed RVP regulations. The Agency, therefore, designed the 1-psi RVP allowance as a means to ensure that the effect of the CAA sec. 211(f)(4) waiver that was then applicable to E10 would not be nullified, as well as to address other public policy concerns, such as reducing dependence on foreign oil and making use of excess agricultural production, as referenced above. The Agency proposed that the 1-psi RVP allowance be conditioned on sampling and testing the final blend of gasoline and ethanol for RVP by all regulated parties, including downstream blenders, that elected to use the waiver.[43]

In 1989, EPA finalized regulations that imposed limits on the volatility of gasoline and ethanol blends as "Phase I" of a two-phase regulation under CAA sec. 211(c). EPA's regulation established a maximum RVP standard of 10.5 psi for gasoline during the high ozone season.[44] In

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[40] Id.
[41] See 52 FR 31274, 31316 (August 19, 1987).
[42] See 52 FR 31316 (August 19, 1987).
[43] See 52 FR 31274, proposed 40 CFR 80.27(d)(1) (August 19, 1987). See also 54 FR 11872-73 (March 22, 1989), where we declined to finalize this approach.
[44] See 54 FR 11879 (March 22, 1989).

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that action, EPA also provided an RVP allowance "for gasoline-ethanol blends commonly known as gasohol" that was 1.0 psi higher than for gasoline.[45] This was finalized as an interim measure with the intent to revisit the issue in "Phase II" of the volatility regulations.[46]

EPA's final regulations in "Phase I" provided that in order to receive the 1-psi RVP allowance, "gasoline must contain at least 9% ethanol (by volume)," and that "the ethanol content of gasoline shall be determined by use of one of the testing methodologies specified in Appendix F to this part." The regulations also provided that "the maximum ethanol content of gasoline shall not exceed any applicable waiver conditions under section 211(f)(4) of the Clean Air Act."[47]

In "Phase I," EPA did not place limits on the upper bound of the ethanol content, other than by providing, as quoted above, that the ethanol content shall not exceed any applicable waiver conditions under CAA sec. 211(f)(4) (and thereby implicitly incorporating any upper-bound limit imposed as a condition on any future applicable waiver). At the time, the highest permissible ethanol content under a CAA sec. 211(f)(4) waiver was 10 percent ethanol, and thus, this provision could only apply to blends containing 9–10 percent ethanol. In other words, EPA designed the 1-psi RVP allowance to allow for the continued lawful introduction into commerce of E10 and the Phase I RVP regulatory language would have automatically accommodated future increases in allowable ethanol concentration in gasoline under a CAA sec. 211(f)(4) waiver.

In June 1990, in "Phase II" of the volatility regulations, EPA established a maximum RVP standard of 9.0 psi for gasoline during the high ozone season. The regulations also established an RVP standard of 7.8 psi for gasoline during the high ozone season in both ozone

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[45] Id.
[46] Id.
[47] 54 FR 11872–73 (March 22, 1989) (codified at 40 CFR 80.27(d)).

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attainment and nonattainment areas in the southern states of the country. EPA further maintained the 1-psi RVP allowance for blends of 10 percent ethanol and gasoline and did not modify the regulations at 40 CFR 80.27(d).[48] Thus, both the language stating that the gasoline must contain at least 9 percent ethanol, and the language stating that the maximum ethanol content of gasoline shall not exceed any applicable waiver conditions under CAA sec. 211(f)(4), remained in the regulations, effectively allowing for automatic accommodation of the 1-psi RVP allowance for increases in allowable ethanol concentration in gasoline under future CAA sec. 211(f)(4) waivers.[49] In doing so, the Agency reiterated that these regulatory provisions are intended to accommodate the importance of ethanol to the nation's energy security as well as the agricultural economy sector. The Agency also addressed air quality impacts of allowing the 1-psi RVP allowance given that a higher RVP limit for blends of 10 percent ethanol and gasoline would result in increased evaporative VOC emissions in the small part of the gasoline market attributable at that time to blended. EPA explained that the 1 psi RVP allowance "reflects the moderation in EPA's concern about negative air quality impact as well as a reluctance to threaten the motor fuel ethanol production and blending industries with collapse."[50]

b. Enactment of CAA Sec. 211(h)

In November 1990, Congress enacted the CAA Amendments of 1990, including CAA sec. 211(h), the first statutory provision specifically addressing the volatility of gasoline. CAA sec. 211(h)(1) required EPA "to promulgate regulations making it unlawful . . . during the high ozone season to sell . . . or introduce into commerce gasoline with a Reid Vapor Pressure in

[48] See 55 FR 23658, 23660 (June 11, 1990).
[49] Id.
[50] "While some believe the industry should not exist…[o]ther agencies and Congress will continue to address related agricultural, trade and energy issues which have led to federal support for the existence of the gasohol industry." 55 FR 23666 (June 11, 1990).

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excess of 9.0 pounds per square inch." Further in CAA sec. 211(h)(4), Congress, following EPA's lead in the 1989 and 1990 volatility regulations, also allowed fuel blends containing gasoline and 10 percent ethanol to have 1 psi higher RVP than the RVP standard otherwise established in CAA sec. 211(h)(1). This statutory provision is referred to as the 1-psi RVP waiver.[51] CAA sec. 211(h)(4) provides the following ethanol waiver: "for fuel blends containing gasoline and 10 percent denatured anhydrous ethanol, the Reid vapor pressure limitation under this subsection shall be one pound per square inch (psi) greater than the applicable Reid vapor pressure limitations established under [CAA sec. 211(h)(1)]."

According to legislative history, "[t]his provision was included in recognition that gasoline and ethanol are mixed after the refining process has been completed. It was recognized that to require ethanol to meet a nine pound RVP would require the creation of a production and distribution network for sub-nine pound RVP gasoline. The cost of producing and distributing this type of fuel would be prohibitive to the petroleum industry and would likely result in the termination of the availability of ethanol in the marketplace."[52] EPA has interpreted CAA sec. 211(h) as largely a codification of our prior RVP regulations and the 1-psi RVP allowance.[53]

Further, Congress enacted a conditional defense against liability for violations of the RVP level allowed under the 1-psi waiver by providing that full compliance "shall be deemed" with a demonstration that (A) "the gasoline portion of the blend complies with the Reid vapor pressure limitations promulgated pursuant to this subsection;" (B) "the ethanol portion of the blend does not exceed its waiver condition under subsection (f)(4) of this section;" and (C) "no additional alcohol or other additive has been added to increase the Reid Vapor Pressure of the

[51] We also refer to the regulations at 40 CFR 80.27 as the "1-psi RVP waiver" as well.
[52] S. Rep. No. 101-228, at 110 (1989) (Conf. Rep.); reprinted at 5 Leg. Hist. at 8450 (1993).
[53] See 76 FR 44433 (July 25, 2011).

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ethanol portion of this blend." (CAA sec. 211(h)(4)). This is referred to as the "deemed to comply" provision, or the alternative compliance mechanism for the 1-psi waiver. It is considered a statutorily mandated defense that allows regulated parties, such as downstream oxygenate blenders,[54] to demonstrate compliance with the RVP standard while taking advantage of the 1-psi waiver by meeting the specified conditions in CAA sec. 211(h)(4) in lieu of complying with the testing provisions in 40 CFR 80.27(d)(2) (1987). It also reflects Congressional response to EPA's proposed compliance testing provisions for the 1-psi RVP allowance in the 1987 proposed rulemaking, which Congress viewed as complicated and burdensome given the industry practices at the time used to produce gasohol: "the enforcement strategy recently proposed by the Agency . . . would be totally unworkable for those motor vehicle fuels which are a blend of gasoline and ethanol and which are allowed a higher RVP limit under the reported bill."[55]

c. Implementation of CAA sec. 211(h)(4)

Subsequent to Congress's enactment of CAA sec. 211(h)(4), EPA modified our volatility regulations to more explicitly align with the new statutory provisions, but "did not propos[e] any change to the current requirement that the blend contain between 9 and 10 percent ethanol (by volume) to obtain the one psi allowance."[56] However, EPA did modify its regulations at 40 CFR 80.27 to clarify that "gasoline must contain denatured, anhydrous ethanol," and that "[t]he concentration of the ethanol, excluding the required denaturing agent, must be at least 9% and no more than 10% (by volume) of the gasoline" (where, as quoted above, the previous version of the

[54] "Oxygenate blenders" are defined in our regulations as "any person who owns, leases, operates, controls, or supervises an oxygenate blending facility, or who owns or controls the blendstock or gasoline used or the gasoline produced at an oxygenate blending facility." An oxygenate blending facility is defined as "any facility (including a truck) at which oxygenate is added to gasoline or blendstock, and at which the quality or quantity of gasoline is not altered in any other manner except for the addition of deposit control additives." See 40 CFR 80.2(mm) and (ll).
[55] S. Rep. No. 100-231, 100th Cong. 1st Sess. at 149 (1987).
[56] See 56 FR 64708 (December 12, 1991).

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regulations provided that gasoline "must contain at least 9% ethanol" to qualify for the 1-psi RVP allowance and thus did not set an upper limit on ethanol content). At that time, we read both the statutory 1-psi waiver provision and the "deemed to comply" provision in CAA sec. 211(h)(4) together to limit the volume concentration of ethanol subject to the CAA sec. 211(h)(4) waiver to between 9 and 10 percent, as only blends of gasoline and up to 10 percent ethanol had a waiver under CAA sec. 211(f)(4) at the time EPA promulgated the RVP requirements.[57] We further stated that "this is consistent with Congressional intent [because] the nature of the blending process . . . further complicates a requirement that the ethanol portion of the blend be exactly 10 percent ethanol."[58] For these reasons, the 1-psi waiver reflected Congressional recognition of the existing CAA sec. 211(f)(4) waiver for E10; Congress intended that the 1-psi waiver from the 9.0 psi RVP requirement in CAA sec. 211(h)(1) would allow for E10's continued lawful introduction into commerce.[59]

In issuing implementing regulations at 40 CFR 80.28(g)(8) related to the "deemed to comply" provision in CAA sec. 211(h)(4), EPA allowed parties to demonstrate a defense against liability by making the showings provided in CAA sec. 211(h)(4), stating that "EPA believes this defense is limited to ethanol blends which meet the minimum 9 percent requirement in the regulations and the maximum 10 percent requirement in the waivers under section 211(f)(4)."[60]

4. Background of E10 and E15 CAA Sec. 211(f)(4) Waivers

CAA sec. 211(f)(1) makes it unlawful for "any manufacturer of any fuel or fuel additive" to first introduce into commerce, or to increase the concentration in use of, any fuel or fuel additive for use by any person in motor vehicles manufactured after MY1974, which is not

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[57] Id.
[58] Id.
[59] Id.
[60] Id. and 40 CFR 80.28(g).

substantially similar (commonly referred to as "sub sim") to any fuel or fuel additive used in the certification of any MY1975, or subsequent model year, vehicle or engine under CAA sec. 206. Fuels or fuel additives that are not sub sim to a fuel or fuel additive used in certification cannot be introduced into commerce unless EPA has granted a waiver under CAA sec. 211(f)(4). CAA sec. 211(f)(4) provides that upon application of any fuel or fuel additive manufacturer, the Administrator may waive the prohibitions of CAA sec. 211(f)(1) if the Administrator determines that the applicant has established that such fuel or fuel additive, or a specified concentration thereof, will not cause or contribute to a failure of any emission control device or system (over the useful life of the motor vehicle, motor vehicle engine, nonroad engine, or nonroad vehicle in which such device or system is used) to achieve compliance by the vehicle or engine with the emission standards to which it has been certified pursuant to CAA sec. 206 and 213(a).

In 1978, a waiver application was submitted for gasoline containing ethanol at 10 percent by volume. EPA did not act to grant or deny the application for a waiver for E10, and consequently, under the statutory scheme as it existed at that time, the waiver was deemed granted by operation of law.[61] Thus, E10 was granted a waiver under CAA sec. 211(f)(4) without any conditions, in contrast to other CAA sec. 211(f)(4) waivers, which included, for example, conditions on fuel characteristics such as RVP.[62]

For E15, EPA granted partial waivers under CAA sec. 211(f)(4) in 2010 and 2011.[63] In March 2009, Growth Energy and 54 ethanol manufacturers submitted an application to EPA to grant a waiver under CAA sec. 211(f)(4) to allow E15 for use in all vehicles, engines, and equipment ("the E15 waiver request"). On October 13, 2010, EPA partially approved the E15

[61] See 44 FR 20777 (April 6, 1979).
[62] See, e.g., "Fuels and Fuel Additives; Waiver Application," Octamix Waiver, 53 FR 3636 (February 8, 1988).
[63] See 75 FR 68094 (November 4, 2010) and 76 FR 4662 (January 26, 2011), respectively.

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waiver request to allow the introduction of E15 into commerce for use in MY2007 and newer light-duty motor vehicles subject to certain waiver conditions.[64] Subsequently, on January 21, 2011, EPA extended this partial waiver to include MY2001-2006 light-duty motor vehicles after receiving and analyzing additional U.S. Department of Energy ("DOE") test data and finding that E15 will not cause or contribute to a failure to achieve compliance with the emissions standards to which these vehicles were certified over their useful lives.[65] EPA also denied the waiver request for MY2000 and older light-duty motor vehicles, as well as all model year heavy-duty gasoline engines and vehicles, highway and off-highway motorcycles, and nonroad engines, vehicles, and equipment. This denial was based on EPA's engineering analysis that E15 could adversely affect the emissions and emissions controls of vehicles, engines, and equipment not covered by the partial waivers and that the applicants had not provided sufficient data or other information to demonstrate that E15 would not cause or contribute to a failure to achieve compliance with the emissions standards to which these vehicles, engines, and equipment were certified over their full useful lives, as required by CAA sec. 211(f)(4).

In the October 2010 waiver, for MY2007 and newer motor vehicles, EPA also concluded that the data and information show that E15 will not lead to violations of evaporative emissions standards, so long as the fuel does not exceed an RVP of 9.0 psi in the summer.[66] EPA imposed a condition that allows fuel manufacturers to introduce E15 into commerce so long as the E15 does not have an RVP "in excess of 9.0 psi during the time period from May 1 to September 15."[67] Subsequently, in the January 2011 waiver, EPA imposed identical waiver conditions for

[64] See 75 FR 68094 (November 4, 2010).
[65] See 76 FR 4662 (January 26, 2011).
[66] See 75 FR 68149-68150 (November 4, 2010).
[67] See 75 FR 68149 (November 4, 2010).

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MY2001-2006 motor vehicles, including the requirement that the fuel not exceed an RVP of 9.0 psi in the summer, based on the same conclusion.[68]

Taken together, these partial waivers allow E15 to be used in MY2001 and newer light-duty motor vehicles subject to particular waiver conditions, including fuel quality conditions and conditions on the sale and use of E15. These waiver conditions include the prohibition on the use of E15 in pre-MY2001 motor vehicles, in addition to all model year heavy-duty gasoline engines or vehicles, or motorcycles, as well as any nonroad engines or nonroad vehicles. The waiver conditions also place limitations on the ethanol that can be added (both the concentration and quality),[69] as well as a condition that the RVP of the final fuel not exceed 9.0 psi.[70] The waiver conditions also require fuel and fuel additive manufacturers to submit to EPA a misfueling mitigation plan describing all reasonable precautions for ensuring E15 is only used in MY2001 and newer motor vehicles, as described in the waiver conditions.[71] To help facilitate the implementation of the waiver conditions and place requirements on parties other than fuel and fuel additive manufacturers, EPA promulgated the Misfueling Mitigation Rule in 2011, under CAA sec. 211(c), subsequent to the E15 partial waiver decisions.[72] The MMR imposed fuel dispenser labeling, PTD, and compliance survey requirements on parties that make and distribute E15. EPA promulgated the MMR "to mitigate misfueling with E15 that lawfully has been introduced into commerce under the terms of the waiver[s]. The waiver conditions, and implementation of the waiver conditions, address a closely related but different issue—when,

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[68] See 76 FR 4682–4683 (January 26, 2011).
[69] For example, the ethanol used to make E15 must meet ASTM D4806-10 specifications for ethanol quality. See ASTM D4806-10, "Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel," ASTM International, West Conshohocken, PA, 2010.
[70] See 75 FR 68094 (November 4, 2010) and 76 FR 4662 (January 26, 2011). This RVP limit is identical to the limitation under CAA sec. 211(h)(1) of 9.0 psi RVP during the high ozone season. The high ozone season was defined by the Administrator via regulation to mean the period from June 1 to September 15 of any calendar year.
[71] See 76 FR 4662, 4582 (January 26, 2011).
[72] See 76 FR 44406 (July 25, 2011).

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how and by whom E15 can be introduced into commerce under the partial waiver decisions. This rule only addresses the issue of mitigating misfueling in the event E15 is lawfully introduced into commerce under the partial waivers, and is issued under EPA's authority under section 211(c)."[73] The MMR also applied EPA's prior interpretation of the 1-psi waiver in CAA sec. 211(h)(4) as not applying to E15 and adopted certain regulations designed to effectuate that interpretation.[74] In this action, EPA is interpreting CAA sec. 211(h)(4) and also amending the regulations to implement that interpretation.

B. Interpretation of CAA Sec. 211(h)(4)

In this action, we are finalizing our proposed change in interpretation of CAA sec. 211(h)(4). We find that the statutory language at CAA sec. 211(h)(4) is ambiguous. We last interpreted this section in 2011, and in this action we are changing our interpretation. Our new interpretation is consistent with the text of the provision, its context within CAA sec. 211(h), and Congressional intent. It is also reasonable in light of the changed circumstances since we last interpreted this provision in 2011, and in light of EPA's determination that it is appropriate to provide E15 the 1-psi waiver.

As discussed in Section II.A.2, gasoline-ethanol blends in the marketplace have increased such that the in-use gasoline supply is now almost entirely E10. E15 is now present in the marketplace, but the current limitation of the applicability of the 1-psi waiver to only E10 in most CG areas is one of several hurdles to the continued entry of E15 into the marketplace (discussed in more detail in Section II.E).[75] The same market limitation that prompted EPA to

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[73] See 76 FR 44406, 44440 (July 25, 2011).

[74] As discussed further in Section II.B, in promulgating regulations following the enactment of CAA sec. 211(h)(4), EPA interpreted 211(h)(4) to apply to gasoline-ethanol blends containing between 9 and 10 percent ethanol. See 56 FR 64708 (December 12, 1991).

[75] See, e.g., Prime the Pump: Driving Ethanol Gallons, available at: *https://growthenergy.org/wp-content/uploads/2019/01/MDEV-19022-PTP-Overview-2019-01-25.pdf.*

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provide the 1-psi waiver for E10 nationwide in 1989 currently exists for E15 in most CG areas. Namely, in order for E15 to be distributed in most CG areas, it requires the production and distribution of a higher cost low-RVP CBOB into which 15 percent ethanol could be blended while still meeting the 9.0 psi RVP standard for gasoline during the high ozone season.[76] This is because E10 currently receives the benefit of the 1-psi waiver, but E15 does not. As a result, some parties for which other constraints (e.g., compatible service station equipment) are not of concern might still not be able to produce and distribute E15, given the difficulty and cost associated with obtaining CBOB that when blended to produce E15 would meet the 9.0 psi RVP during the summer. With the 1-psi waiver, 15 percent ethanol could be blended using the same CBOBs currently being distributed for use with 10 percent ethanol, year-round.[77] This action, therefore, is a response to changed circumstances since the Agency's promulgation of RVP regulations in 1990, which pre-dates EPAct in 2005 and EISA in 2007, and since we last interpreted CAA sec. 211(h)(4) in 2011. Further, because blending 15 volume percent ethanol into gasoline would result in an approximate 1.0 psi RVP increase, similar to E10, the resultant RVP for any blended fuel would be no higher than the RVP standard plus the 1-psi waiver, which is currently 10.0 psi for a gasoline-ethanol blended fuel containing 10 percent ethanol.[78] This interpretation is consistent with the plain language of CAA sec. 211(h) and with Congress' intent to promote ethanol blending into gasoline, and is not expected to cause significant increases in emissions as compared to the current market situation with E10 as discussed in Section II.F.

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[76] Some parties have access to low RVP blendstocks created for low-RVP areas and RFG areas. However, these blendstocks are not widely distributed in all areas. For a list of state low-RVP areas, see EPA's "State Fuels" website available at: *https://www.epa.gov/gasoline-standards/state-fuels*.

[77] In reformulated gasoline areas (approximately one-third of gasoline nationwide) and certain other areas that do not provide a 1-psi waiver for E10, E15 can already be blended using the same blendstocks used for E10.

[78] This is true for E15 made from blends of certified gasoline or BOB and ethanol. This volatility relationship is not maintained when other products (e.g., natural gas liquids) are blended to make E15.

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In the MMR, we interpreted CAA sec. 211(h)(4) (which affords a 1-psi waiver to "fuel blends containing gasoline and 10 percent denatured anhydrous ethanol") as providing a 1-psi waiver for fuel blends of gasoline and at least 9 volume percent ethanol and not more than 10 volume percent ethanol despite having given E15 a partial CAA sec. 211(f)(4) waiver from sub sim. As previously explained, this interpretation was premised on a reading of regulations and statutory provisions that reflected the existence of a CAA sec. 211(f)(4) waiver for E10, which was the highest available ethanol content in the gasoline marketplace at the time of the 1990 Amendments to the CAA, and we did not alter this interpretation based on the existence of the E15 CAA sec. 211(f)(4) partial waivers. In that action, we read CAA secs. 211(h)(4), including the "deemed to comply" provision, and 211(h)(5) together to only apply the 1-psi waiver for E10. In this action, we are adopting a new interpretation of CAA sec. 211(h)(4), under which the provision specifies the minimum ethanol content that fuel blends containing ethanol and gasoline must contain in order to qualify for the 1-psi waiver. We are finalizing a new interpretation of this statutory provision that would allow the 1-psi waiver for gasoline containing at least 10 percent ethanol. This reading, which harmonizes all relevant provisions, removes the current, anomalous result whereby a sole ethanol blend (E10) receives the 1-psi waiver, when market conditions have changed over time such that E15 is an increased presence in the marketplace. Specifically, it would mean that the 1-psi waiver is equally applicable to gasoline-ethanol blends the agency finds are sub sim under CAA sec. 211(f)(1) and those gasoline-ethanol blends that receive or have received a CAA sec. 211(f)(4) waiver. At present, these are blends up to 15 percent ethanol, based on: (1) EPA's prior issuance of partial waivers in 2010 and 2011 under

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CAA sec. 211(f)(4) for E15; and (2) the finding in this rulemaking that E15 is sub sim to Tier 3 E10 certification fuel.[79]

Moreover, it is well settled that EPA has inherent authority to reconsider, revise, or repeal past decisions to the extent permitted by law so long as we provide a reasoned explanation. Many commenters pointed to EPA's previous interpretation of CAA sec. 211(h)(4) in the volatility regulations promulgated after the CAA Amendments of 1990, and the MMR as reasons why EPA's new interpretation is flawed. We do not find these arguments persuasive because of EPA's inherent authority to reconsider, revise, or repeal past decisions to the extent permitted by law. This authority exists in part because EPA's interpretations of the statutes we administer "are not carved in stone."[80] An agency "must consider varying interpretations and the wisdom of its policy on a continuing basis."[81] This is true when, as is the case here, review is undertaken "in response to changed factual circumstances or a change in administration."[82] EPA must also be cognizant where we are changing a prior position that the revised position is permissible under the statute and must articulate a reasoned basis for the change.[83] In this case, EPA's interpretation of the text of CAA sec. 211(h)(4) is a reasonable one, and takes into account changed circumstances that have arisen since we issued the partial waivers for E15 in 2010 and 2011.

The Clean Air Act does not define the term "containing" in the phrase "containing gasoline and 10 percent denatured anhydrous ethanol," and at proposal, therefore, EPA relied on

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[79] See discussion at Section II.D.1, infra, for further discussion of the regulatory changes associated with this changed interpretation.
[80] *Chevron U.S.A. Inc. v. NRDC, Inc.*, 467 U.S. 837, 863 (1984).
[81] Id. at 863–64.
[82] *Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs.*, 545 U.S. 967, 981 (2005). See also *Nat'l Ass'n of Home Builders v. EPA*, 682 F.3d 1032, 1043 (D.C. Cir., 2012) (change in administration is a "perfectly reasonable basis" for an agency's reappraisal of its regulations and programs).
[83] *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515.

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the dictionary meaning that is reasonable, sensible and provides meaning to the reading of CAA sec. 211(h)(4). As explained in more detail below and in the response to comments (RTC) document accompanying this action, we are interpreting this term to establish a lower limit on the minimum ethanol content required for the 1-psi waiver in CAA sec. 211(h)(4). This interpretation applies to 211(h)(4) in its entirety, and 211(h)(5). Most of the commenters that argued for limiting the 1-psi waiver only selected their preferred meaning of "containing" without addressing whether that definition fit within the statutory scheme of CAA sec. 211(h)(4) or makes sense in this context and we have addressed these comments in Section 1.2.2.1 of the RTC document. Even when other potential meanings of the term are considered, EPA's interpretation and definition are eminently reasonable, make the most sense and provide meaning to the reading of CAA sec. 211(h)(4) in light of the current circumstances with respect to E15.[84]

As explained at proposal, Congress enacted CAA sec. 211(h)(4) when 10 percent ethanol was the highest permissible ethanol content in gasoline under the 1978 CAA sec. 211(f)(4) waiver that allowed for its introduction into commerce. At that time, there were no other CAA sec. 211(f)(4) waivers for gasoline-ethanol blends. As also explained at proposal, Congress promulgated the "deemed to comply" provision as an enforcement mechanism for the 1-psi waiver. Of relevance is the criterion that "the ethanol portion of the blend does not exceed its waiver condition under subsection (f)(4)."[85] In 2011, when EPA declined to extend the 1-psi waiver to E15, the agency's interpretation was premised largely on this additional criterion for the 1-psi waiver.[86] Nothing in these prior agency interpretations, however, sheds light on how to read "containing," at the current time.

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[84] See *General Dynamics Land Systems v. Cline*, 540 U.S. 581, 596 (2004) (finding that "age" has several commonly understood meanings which should be interpreted in the context used).
[85] CAA sec. 211(h)(4)(B).
[86] See 76 FR 44406, 44433-35 (July 25, 2011).

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At proposal, we also explained that lack of modifiers in the phrase "fuel blends containing gasoline and ten percent ethanol," supports our reading that Congress established a lower limit on the minimum ethanol content for the 1-psi waiver rather than an upper limit on the ethanol content. We then explained that Congress could legislate and would have likely employed terms connoting a maximum ethanol content limit in CAA sec. 211(h)(4) similar to, for example, CAA secs. 211(k) and (m) had Congress intended for the ethanol content to be an upper bound. CAA secs. 211(k) and (m) are mandatory gasoline content provisions that also employ specific units of measurement as an indication of measurement precision. CAA sec. 211(m)(2) provides that "gasoline is to be blended to contain not less than 2.7 percent oxygen by weight." Section 211(k)(3)(A)(1) provides that "[t]he benzene content of reformulated gasoline shall not exceed 1.0 per cent by volume;" section 211(k)(3)(A)(ii) provides that "[t]he aromatics hydrocarbon content of the reformulated gasoline shall not exceed 25 percent by volume." We further noted that CAA sec. 211(h)(1) employs the modifier "in excess" as compared to CAA sec. 211(h)(4). But Congress notably did not use any modifier in CAA sec. 211(h)(4), which sets out a relaxation of a mandatory provision. It, therefore, appears that Congress made a deliberate choice – where Congress sought to impose mandatory fuel content requirements, such as in CAA secs. 211(k) and (m), it utilized modifiers as compared to where it set out an allowance or relaxation of a mandatory requirement such as CAA sec. 211(h)(4) for RVP, where it did not utilize modifiers. In other words, where Congress intended to impose a "no greater than" requirement addressing fuel properties, it explicitly did so. In contrast, in CAA sec. 211(h)(4), Congress included no such language.

Additionally, Congress employed modifiers where fuel content or properties were of a nature subject to precise determination, but as also shown elsewhere in this preamble, Congress

promulgated the deemed to comply provision in response to measurement imprecision resulting from splash blending ethanol into gasoline. These provisions thus reflect a deliberate and intentional scheme and confirm our view that Congress legislates and the omission of modifiers in CAA sec. 211(h)(4) was also deliberate and intentional.

Given that this provision lacks modifiers for the term "containing," in contrast to the other statutory provisions referenced above, there is support for our reading that this term as employed in the phrase "fuel blends containing gasoline and ten percent ethanol" is ambiguous and provides room for EPA to make interpretive and policy choices.

It is therefore permissible, and supported by the text of the statute, where Congress has used only the ambiguous term "containing" in CAA sec. 211(h)(4), for EPA to interpret "containing" to mean "containing at least." Given this ambiguity, EPA's construct only needs to be a reasonable one and neither the best nor only reading of "containing." ("Even if the statute does not compel EPA's reading, and indeed even if EPA's reading is not the better reading, the statute at a minimum is sufficiently ambiguous on this point to permit EPA's reading.")[87] Where, as in this instance, EPA is confronted with a reading of a provision that was enacted at the time the highest permissible ethanol content under EPA's then-current regulations was E10, this connotation of "containing" as specifying a minimum limit or floor on the ethanol content for fuel blends to qualify for the 1-psi waiver in CAA sec. 211(h)(4) is a permissible reading that gives meaning to the phrase "fuel blends containing gasoline and 10 percent denatured anhydrous ethanol." It is neither strained nor contrived but rather allows EPA as the agency tasked with administering the Clean Air Act to give effect and meaning to the terms of a relevant provision. ("The power of an administrative agency to administer a congressionally created . . .

[87] *NRDC v. EPA*, 749 F.3d 1055 (D.C. Cir. 2014)

program necessarily requires the formulation of policy and the making of rules to fill any gap left, implicitly or explicitly, by Congress.")[88]

We are interpreting this language as establishing a lower limit, or floor, on the minimum ethanol content for a 1-psi waiver from the volatility requirements expressed in CAA sec. 211(h)(1), rather than an upper limit on the ethanol content. As explained at proposal, we can look to the use of the term "containing" in its ordinary sense, given the purpose and context of CAA sec. 211(h)(4) described above. "Containing" is defined as "to have within: hold."[89] Under this interpretation, the statute sets the minimum ethanol content, such that all fuels which contain at least 10 percent ethanol may receive the 1-psi waiver, including blends that contain more than 10 percent ethanol.[90] Therefore, E15, which has within it 10 percent denatured anhydrous ethanol, meets this definition, and should receive the 1-psi waiver specified in CAA sec. 211(h)(4).[91]

When EPA issued implementing regulations under both CAA sec. 211(c) prior to the enactment of CAA sec. 211(h), and under CAA sec. 211(h), once that provision was enacted,

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[88] *Chevron U.S.A. Inc. v. NRDC, Inc.*, 467 U.S. 837, 843 (1984).

[89] Webster's Third New International Dictionary 491 (unabridged ed. 1981). See also American Heritage Dictionary online 2019, defining "containing" as "to have within; hold."

[90] We are not changing our interpretation of the term 10 volume percent, which includes as little as 9 volume percent, to continue to provide the necessary blending flexibility for E10. Comments requesting that EPA revise its interpretation to exclude ethanol blends containing between 9 and 10 volume percent ethanol are outside the scope of this action, since EPA proposed only to interpret CAA sec. 211(h)(4) to apply to blends higher than 10 volume percent ethanol, and did not propose to revise its interpretation that blends containing 9 volume percent ethanol also receive the 1-psi waiver. Moreover, the text of CAA sec. 211(h)(4) encompasses E10, and, as explained in regulations implementing CAA sec. 211(h)(4), we stated that requiring exactly 10 volume percent ethanol "would place a next to impossible burden on ethanol blenders," and that "[t]he nature of the blending process itself . . . further complicates a requirement that the ethanol portion of the blend be exactly 10 percent ethanol." See 56 FR 24245 (May 29, 1991).

[91] CAA sec. 211(h)(5) also contains the language "fuel blends containing gasoline and ten percent denatured anhydrous ethanol." Our changed interpretation of CAA sec. 211(h)(4) also has implications for CAA sec. 211(h)(5), which allows states to opt out of the 1-psi wavier provided by CAA sec. 211(h)(4) for particular areas upon a showing that the 1-psi waiver will increase emissions that contribute to air pollution. Because the language in CAA sec. 211(h)(5) pertaining to the 1-psi waiver is identical to the language in CAA sec. 211(h)(4), and both refer to the 1-psi waiver, we believe that both sections should be read together to apply the 1-psi waiver to E10 and E15. Accordingly, we interpret CAA sec. 211(h)(5) to allow states to opt out of the 1-psi waiver provided by CAA sec. 211(h)(4) for fuel blends containing gasoline and 9–15 percent denatured anhydrous ethanol.

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those regulations reflected the highest permissible ethanol content at the time they were issued, which was 10 percent ethanol under a CAA sec. 211(f)(4) waiver. In describing the volatility regulations promulgated under CAA sec. 211(c), we stated that the 1-psi waiver is "for blends of gasoline with about 10 percent ethanol, or gasohol."[92] In regulations, we codified the CAA sec. 211(f)(4) waiver, providing that "[t]he maximum ethanol content … in gasoline shall not exceed any applicable waiver conditions under CAA sec. 211(f)(4) waiver."[93] Thus, EPA's actions merely reflected the situation at the time the regulations were promulgated. Additionally, prior EPA statements on the imprecise nature of gasoline-ethanol blending also support the view that neither Congress nor EPA intended to limit ethanol content for the 1-psi waiver. "The nature of the blending process . . . complicates a requirement that the ethanol portion of the blend be exactly 10 percent ethanol."[94]

The phrase "fuel blends containing gasoline and ten percent ethanol" is ambiguous, but as previously discussed, EPA as the agency tasked with implementing CAA sec. 211(h)(4) is interpreting this provision in a reasonable manner, which is consistent with the reading articulated in the House bill, i.e., gasoline that contains at least 10 percent ethanol receives the 1-psi waiver.[95] EPA is not aware of any conference or committee reports, or other legislative history, explaining why Congress ultimately enacted the language in the CAA Amendments in lieu of the language in the House Bill and commenters have not provided any such explanation. There is no discussion, for example, of whether Congress felt that "containing" was sufficiently specific, or whether, as discussed above, the nature of the blending process was likely to make a

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[92] 55 FR 23660 (June 11, 1990).
[93] 55 FR 23660 (June 11, 1990) and 40 CFR 80.27(d)(2) (1987).
[94] 56 FR 24245 (May 29, 1991).
[95] See *Edison Electric Inst. v. EPA*, 2 F.3d 438, 451 (D.C. Cir. 1993) (holding that "the deletion of a word or phrase in the throes of the legislative process does not ordinarily constitute, without more, evidence of a specific legislative intent.").

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requirement of "at least" ten percent difficult to meet in practice. Therefore, we do not find the failure to adopt the "containing at least 10 percent" language in the final bill persuasive as to whether Congress intended that meaning to be precluded under the statute.

Our interpretation is also supported by the purpose of the 1-psi waiver provision. The Senate Report published along with the enactment of the 1990 CAA Amendments and CAA sec. 211(h)(4) also describes both the purpose of including CAA sec. 211(h)(4), and general language about ethanol use in the fuel supply. The report states that the 1-psi waiver was:

> included in recognition that gasoline and ethanol are mixed after the refining process has been completed. It was recognized that to require ethanol to meet a 9 pound RVP would require the creation of a production and distribution network for sub-nine pound RVP gasoline. The cost of producing and distributing this type of fuel would be prohibitive to the petroleum industry and would likely result in the termination of the availability of ethanol in the marketplace. Under this provision, the RVP limitations promulgated pursuant to this subsection for such ethanol/gasoline blends shall be one pound per square inch greater than the applicable Reid vapor pressure which apply to gasoline. Senate Report 101-228, at 3495.

Finally, the Senate report states that the 1-psi waiver would "allow ethanol blending to continue to be a viable alternative fuel, with its beneficial environmental, economic, agricultural, energy security and foreign policy implications."[96] Like E10 at the time of enactment, E15 currently requires the production and distribution of low-RVP blendstock and the cost of producing and distributing this type of blendstock has limited the availability of E15. While this legislative history does not speak to the meaning of the word "containing," it does articulate congressional intent in enacting the provision, recognizing the role for ethanol in the marketplace. This report and other relevant legislative history do not explicitly address whether CAA sec. 211(h)(4) should apply to gasoline-ethanol blends that contain at least 10 percent ethanol and are sub sim under CAA sec. 211(f)(1) or have a waiver under CAA sec. 211(f)(4),

[96] See S. Rep. No. 101–228 at 110 (December 20, 1989).

but, as explained at proposal, the reasons it gives for extending the 1-psi waiver to gasoline-ethanol blends up to 10 percent ethanol would today similarly weigh in favor of interpreting the 1-psi waiver to apply to E15, given that Congressional action in CAA sec. 211(h) was largely a ratification of agency regulations for RVP (including the 1-psi waiver) that were initiated in 1987, under CAA sec. 211(c).

Our primary consideration has been to balance the goals of limiting gasoline volatility and ensure that the addition of ethanol does not cause the exceedance of the maximum RVP standard, while also promoting the use of ethanol consistent with the purpose of CAA sec. 211(h)(4). As previously explained, blending gasoline with at least 10 percent ethanol results in an approximate 1.0 psi RVP increase. It does not result in "different volatility levels than already recognized by EPA as adding less than 1.0 psi RVP to gasoline."[97] Similarly, we also expect that E15 produced from the same BOB as E10 would have a similar (if not slightly lower) RVP than E10 and thus, would not exceed the current 10.0 psi RVP limit.[98] Therefore, we are confident that relative evaporative emissions effects for E15 would largely be similar or slightly less than those for E10, as discussed in Section II.F.

In sum, the primary consideration underlying the 1-psi waiver is to limit gasoline volatility while promoting the use of ethanol due to its importance to energy security and the agricultural sector. The interpretation in this action will continue to further these policy concerns given that agency action will now afford similar treatment to all gasoline-ethanol blends.

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[97] Clean Air Act Amendments: Hearings on H.R. 2521, H.R. 3054 and H.R. 3196 Before the Subcommittee on Health and the House Committee on Environment and Committee On Energy and Commerce, 100th Cong. 1st Sess. (1987) (statement of Eric Vaughn, President and CEO of renewable Fuels Association).
[98] "Determination of the Potential Property Ranges of Mid-Level Ethanol Blends." American Petroleum Institute, Washington, DC. April 2010.

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C. *Interpretation of "Substantially Similar" for Gasoline*

In this action, we are finalizing an interpretative rule which determines that E15 with an RVP of 9.0 psi is substantially similar to fuel used to certify Tier 3 light-duty vehicles (i.e., E10 at 9.0 psi RVP) under CAA sec. 211(f)(1).[99] This new interpretation of sub sim would allow fuel manufacturers to introduce into commerce under CAA sec. 211(f)(1) E15 for use in MY2001 and newer light-duty motor vehicles because we find that E15 would have similar effects on the emissions (exhaust and evaporative), materials compatibility, and driveability when compared to Tier 3 E10 certification fuel when used in MY2001 and newer light-duty motor vehicles.[100] We are making this determination for E15 solely in order to provide E15 produced by fuel and fuel additive manufacturers the CAA sec. 211(h)(4) 1-psi waiver.

Additionally, we are not making this determination for E15 for use in MY2000 and older motor vehicles, heavy-duty gasoline engines and vehicles, on and off-highway motorcycles, and nonroad engines, vehicles, and equipment as we have determined that E15 is not "substantially similar" to Tier 3 E10 certification fuel when used in these vehicles, engines, and equipment.[101] Our technical justification for doing so is provided in Sections II.C.6–8.

This determination would make it lawful for any fuel or fuel additive manufacturer to make and introduce into commerce E15 at 10.0 psi RVP during the summer without the use of

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[99] EPA does not have volatility standards on gasoline outside of the regulatory control period (May 1 through September 15), which includes the high ozone season (June 1 through September 15). For both the 2008 definition and the new definition, gasoline introduced into commerce outside of the regulatory control period is considered sub sim if it meets any gasoline volatility class in ASTM D4814. Tier 3 vehicles must be certified on fuels described at 40 CFR 1065.710(b). For purposes of this preamble, we refer to certification test fuel used in certification testing for Tier 3 motor vehicles that contains 10 volume percent ethanol as "Tier 3 E10 certification fuel." Tier 3 E10 certification fuel has an RVP of approximately 9.0 psi.

[100] Auto manufacturers certified some light-duty motor vehicles using Tier 3 E10 certification fuel as early as MY2017 and almost all auto manufacturers must certify their light-duty motor vehicles using Tier 3 E10 certification fuel by MY2020.

[101] For purposes of this preamble, nonroad engines, vehicles, and equipment (including motorcycles and marine engines) are referred to as "nonroad products."

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the E15 waivers under CAA sec. 211(f)(4). In conjunction with our interpretation of CAA sec. 211(h)(4) described in Section II.B, this would allow all parties the ability to lawfully introduce into commerce E15 at 10.0 psi RVP from May 1 through September 15 for use in MY2001 and newer light-duty vehicles, and is needed to effectuate the 1-psi waiver provided for E15 under our revised interpretation of CAA sec. 211(h)(4).[102]

Prohibitions on the use of E15 in all other on-road and non-road products that currently apply through regulations established under CAA sec. 211(c) remain in place, and parties that make and distribute E15, and ethanol for use in producing E15, would still need to satisfy the MMR requirements under 40 CFR Part 80, subpart N. However, we are also including parameters within our definition of sub sim that fuel and fuel additive manufacturers take reasonable precautions to ensure that E15 is only used in vehicles, engines, and equipment for which E15 is sub sim to Tier 3 E10 certification fuel. This includes submission to EPA for approval of a misfueling mitigation plan as previously required under the partial waivers and discussed further in Section II.C.9.[103] This section outlines the background and rationale for our proposed interpretative rulemaking.

1. Certification Fuels

Historically, two fuels are utilized in EPA's emissions standards certification of gasoline-powered vehicles and engines: (1) standardized gasoline with controlled parameters to ensure consistency across vehicle and engine certification used in emissions testing, and (2) commercially available mileage accumulation fuels used to ensure in-use durability of exhaust

[102] Without the sub sim determination, only parties who are not fuel or fuel additive manufacturers as defined in 40 CFR 79.2, as discussed in the NPRM and in Section II.D.3, could introduce E15 into commerce at 10.0 psi in the summer.

[103] Companies that already have an approved misfueling mitigation plan under the E15 CAA sec. 211(f)(4) waivers will not need to submit for approval a separate plan under the sub sim interpretative rule in this action.

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and evaporative emissions controls.[104] Historically, the fuel used in emissions testing ("certification test fuel") contained no oxygenates (e.g., ethanol) and was often referred to by its brand name, "indolene."

In the 2014 Tier 3 rulemaking, we updated the certification test fuel for Tier 3 certified motor vehicles and changed the certification test fuel from E0 to E10 to reflect the widespread use of E10 in the marketplace.[105] The requirement to use Tier 3 E10 certification fuel may have applied as early as MY2015 if a manufacturer elected to comply early with the Tier 3 vehicle emissions standards, but the requirement to use E10 in at least some vehicles began with MY2017. Almost all MY2020 and newer vehicles must be certified for emissions testing with Tier 3 E10 certification fuel, with some exceptions for small volume vehicle manufacturers, which must use Tier 3 E10 certification fuel by MY2022.

Service accumulation fuel for durability must be representative of commercially-available gasoline[106] and evaporative emissions durability must "employ gasoline fuel for the entire mileage accumulation period that contains ethanol in, at least, the highest concentration permissible in gasoline under federal law and that is commercially available in any state in the United States."[107] Since MY2004, service accumulation fuel used for evaporative system aging must contain the highest concentration of ethanol available in the market. After EPA partially granted the waivers for E15 in 2010 and 2011, we notified manufacturers in early 2012 that new evaporative emission families must be aged on E15 under 40 CFR 86.1824-08(f)(1).[108] We believe that auto manufacturers began evaporative system aging on E15 as early as MY2014.

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[104] See 46 FR 38582 (July 28, 1981).
[105] See 79 FR 23414 (April 28, 2014).
[106] See 40 CFR 86.113-15(a)(5).
[107] See 40 CFR 86.1824-08(f)(1).
[108] As described in 40 CFR 86.1803-01, an evaporative/refueling emissions family is "the basic classification unit of a manufacturers' product line used for the purpose of evaporative and refueling emissions test fleet selection and determined in accordance with §86.1821-01." This allows manufacturers of motor vehicles to group models that

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2. History of "Substantially Similar" Interpretations

EPA has issued four interpretative rules that defined "substantially similar" for gasoline used in all gasoline-fueled vehicles. These interpretative rules describe the types of unleaded gasoline that are considered substantially similar to the unleaded gasoline utilized in our vehicle and engine certification programs, and place limits on a gasoline's chemical composition and physical properties, including the types and amount of alcohols and ethers (oxygenates) that may be added to gasoline. Fuels that are found to be substantially similar to certification fuels may be introduced into commerce. Each of our past interpretative rules provided an allowance for oxygenates within the gasoline. We last issued an interpretative rule on the phrase "substantially similar" for gasoline in 2008.[109] In that rulemaking, we allowed for the introduction into commerce of gasoline with modified testing procedures for introduction into commerce in Alaska. The current substantially similar interpretative rule for unleaded gasoline allows oxygen content up to 2.7 percent by weight for certain ethers and alcohols. Despite having changed certification test fuel to include 10 volume percent ethanol, prior to this proposed action, we have not addressed what should be considered substantially similar to Tier 3 E10 certification fuel utilized in Tier 3 light-duty vehicle certification.

In defining what fuels are sub sim to certification fuels, we have listed general physical and chemical characteristics, such as oxygen content, after determining that fuels and fuel additives meeting these general "sub sim" characteristics will not adversely affect emissions. In our past interpretations defining what physical and chemical characteristics are necessary to

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have similar evaporative emission control systems into a single family for purposes of certifying all models within the family to applicable evaporative emissions standards.

[109] See 73 FR 22281 (April 25, 2008).

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make a fuel or fuel additive "sub sim" to certification test fuel, we have taken three primary factors into account: (1) emissions, (2) materials compatibility, and (3) driveability.[110, 111]

We initially specified that fuel with oxygen content up to 2.0 weight percent is sub sim to certification test fuel.[112] We later revised the definition to allow oxygen content up to 2.7 weight percent for gasoline containing aliphatic ethers and/or alcohols (excluding methanol), finding, based on data and our experience with CAA sec. 211(f)(4) waiver applications, that such levels would not result in emissions, materials compatibility, or drivability problems compared with certification test fuel.[113] Thus, we have a history of establishing maximum oxygen content as a criterion, in addition to other criteria, for determining whether a fuel or fuel additive is substantially similar to a fuel utilized in certification.

With respect to fuel volatility, our sub sim interpretations have specified that in order to qualify as sub sim to certification test fuel, which has historically had an RVP of 9.0 psi in light of the vehicle test conditions being reflective of summer conditions, fuels need only "meet ASTM standards in general, that is, not necessarily for every geographic location and time of year."[114] To qualify as sub sim, gasoline (whether or not containing ethanol) "must possess, at time of manufacture, all the physical and chemical characteristics of an unleaded gasoline as

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[110] See 56 FR 5352 (February 11, 1991).

[111] For example, we have interpreted that only fuels and fuel additives with a chemical composition of carbon, hydrogen, oxygen, nitrogen, and sulfur (CHONS) are sub sim under 211(f)(1). Non-CHONS chemical compositions of fuels and fuel additives can impair emission controls resulting in increased emissions or ultimately failure of the emission controls, especially over time. We have also historically been concerned with higher levels of oxygen content as increased oxygen content in gasoline can result in enleanment of the air-fuel ratio leading to higher emissions as well as higher exhaust temperatures that can degrade emission controls over time, especially in vehicles and engines that lack adaptive fuel controls that adjust to oxygenate levels in fuels (e.g., MY2000 and older light-duty motor vehicles).

[112] See 45 FR 6743 (October 10, 1980). 2.0 weight percent oxygen equates to approximately 5.7 volume percent ethanol.

[113] See 56 FR 5352 (February 11, 1991). 2.7 weight percent oxygen equates to approximately 7.7 volume percent ethanol.

[114] See 46 FR 38585 (July 28, 1981).

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specified in ASTM D4814-88 for at least one of the Seasonal and Geographical Volatility Classes specified in the standard."[115]

3. Interpretation of CAA sec. 211(f)(1)

In this action, we are putting forth a new interpretation of CAA sec. 211(f)(1). Recognizing the changed gasoline marketplace, and the multiple certification fuels used today, as compared to 1981, 1991, and even 2008, when the previous definitions of "substantially similar" were articulated, we are interpreting CAA sec. 211(f)(1) to find that E15 is substantially similar to Tier 3 E10 certification fuel for use in MY2001 and newer motor vehicles. This finding is consistent with the statutory text and purpose of CAA sec. 211(f)(1) and appropriate given the changed circumstances since our previous interpretations of what is "substantially similar."[116]

Significant changes have occurred in the time period since CAA sec. 211(f)(1) was enacted and since we have had cause to interpret 211(f)(1) and to determine what fuels qualify as sub sim to our certification fuels. First, we partially granted a CAA sec. 211(f)(4) waiver that created a subset of gasoline fuel, E15 that can only be used in MY2001 and newer light-duty motor vehicles. We have information that the use of E15 in certain light-duty motor vehicles, as well as heavy-duty vehicles and nonroad vehicles, engines, and equipment, could cause or contribute to emission system failures.[117] Second, we have modified the certification fuel on which light-duty vehicles are certified from indolene (gasoline containing no ethanol) to Tier 3 E10 certification fuel for light-duty vehicles. We have not modified the certification fuel for

[115] See 73 FR 22281 (April 25, 2008).
[116] In this action, we are putting forth a new definition of what is "substantially similar" to Tier 3 E10 certification fuel. We are also operating under a new interpretation of CAA sec. 211(f)(1) that requires the examination of the entire scope of vehicles and engines that could use E15, given that Tier 3 E10 certification fuel is only utilized in the certification of a subset of the vehicle and engine fleet. Our discussion of our changed interpretation of CAA sec. 211(f)(1) in this section applies both to our general interpretation of the meaning of CAA sec. 211(f))(1) and the scope of analysis and to our justification for a new substantially similar definition.
[117] See 76 FR 4662 (January 26, 2011).

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other gasoline-powered vehicles, engines, and equipment. This action resulted in a split in the national vehicle and engine fleet by the certification fuel used to certify gasoline-powered vehicles, engines, and equipment: Tier 3 certified vehicles certified on Tier 3 E10 certification fuel and all other vehicles and engines certified on indolene. The use of Tier 3 E10 certification fuel also provides a new comparison point to determine which fuels would be considered substantially similar in all gasoline-powered vehicles, engines, and equipment. Additionally, E10, as discussed in Section II.A.2, has become the predominant fuel used in gasoline powered motor vehicles.

These two actions have resulted in a gasoline pool that is no longer interchangeable in all vehicles and engines. Unleaded gasoline, a fuel which we have interpreted CAA sec. 211(f)(1)(B) to apply, can be used in light-duty vehicles, as well as heavy-duty vehicles, and nonroad engines and equipment, including motorcycles and marine engines. However, as a result of the 211(f)(4) waivers for E15, we know that fueling a subset of those vehicles and engines with unleaded gasoline that is E15 will result in emissions exceedances. Since E15 has increased in availability in the gasoline marketplace as discussed in Section II.A.2 and may increase in the future, as discussed in Section II.E, it is important that E15 be introduced into commerce only for those vehicles for which it can be used without concerns over emissions, materials compatibility, or driveability.

We find that it would be inappropriate to allow the introduction into commerce of E15 for use in all gasoline-powered vehicles and engines in light of the demonstrated adverse impacts on emission systems due to the use of E15 MY2000 and older motor vehicles, heavy-duty gasoline engines and vehicles, on and off-highway motorcycles, and nonroad engines, vehicles, and equipment. However, we do find that E15 is substantially similar to E10 when used in

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MY2001 and newer motor vehicles. Therefore, in this action, we are finalizing an interpretation of CAA sec. 211(f)(1) that accounts for the changed circumstances in both the fuel pool, the certification fuels, and vehicle fleet since we last interpreted this section.

As discussed in Section II.B, EPA has the ability to modify its interpretation of statutory provisions. We are doing so for our interpretation of CAA sec. 211(f)(1). Our past "substantially similar" interpretative rules have not attempted to limit the scope of the vehicles and engines for which fuels would be considered sub sim to our certification fuels. Rather, they put forth an interpretation regarding how EPA would determine whether a new fuel or fuel additive is "substantially similar" for general use in all gasoline powered engines, vehicles and equipment. When EPA took those previous actions, we had no information before us that indicated that use of those new fuels or fuel additives in certain subsets of vehicles or engines may be inappropriate. Therefore, there was no need for EPA to consider limitations or other criteria to modify the sub sim interpretation to a particular subset of vehicles or engines.

In previous determinations of CAA sec. 211(f), we looked broadly at the use of the new fuel or fuel additive in all gasoline-powered engines, vehicles, and equipment. This was appropriate at that time because all gasoline-powered engines, vehicles and equipment were certified using essentially the same fuel and were compatible with any gasoline. Now, in light of the CAA sec. 211(f)(4) waivers, and the changed certification fuel, E15 can be used in MY2001 and newer motor vehicles but its use in other gasoline powered products has demonstrated adverse effects on emissions and materials compatibility. The legislative history of the 1977 CAA Amendments makes clear that the purpose of CAA sec. 211(f) is to ensure that the

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introduction of new fuels and fuel additives into commerce does not adversely impact vehicle emissions.[118]

We retain certain aspects of previous interpretations. The first E15 sec. 211(f)(4) waiver decision, in 2010, was the last occasion on which we articulated our interpretation of CAA sec. 211(f), including the relationship between the CAA sec. 211(f)(1) provision and the CAA sec. 211(f)(4) waiver provision.[119] We stated that the CAA sec. 211(f)(1) "prohibition has evolved over time," but "the concept of applying this prohibition based on the relevant subset of vehicles continues."[120] For example, we explained that "diesel fuel does not need to be substantially similar to the fuel used in the certification of gasoline vehicles, and E85 does not need to be substantially similar to fuel used in the certification of diesel vehicles."[121] We also recognized that, in approving a fuel as substantially similar, EPA could consider narrow as well as broad subsets of motor vehicles when evaluating a fuel or fuel additive for introduction into commerce under CAA sec. 211(f)(1).

In assessing whether a fuel is substantially similar to a certification fuel, we must look only to its use in the engines and vehicles within which it can be used, and not its use in vehicles and engines which are fueled by other types of fuel. Consistent with our past interpretation, we again find that the use of the term "any" in the prohibition ("any . . . vehicle or engine") does not mean all motor vehicles or 100 percent of the motor vehicle fleet.[122] This is supported by the

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[118] See S. Rep. 95-127, (95th Cong., 1st Sess.), at 90 ("The Administrator may waive the prohibition if the applicant establishes that the additive will not impair the emission performance of vehicles produced in model year 1975 and subsequent years.").
[119] 75 FR 68145 (November 4, 2010).
[120] Id.
[121] Id.
[122] Id.

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plain meaning of the term "any," which can mean "one, some, or all indiscriminately of whatever quantity."[123]

As discussed further in Section 1.3.2.2 of the RTC, the use of the phrase "any fuel utilized in the certification of any model year 1975, or subsequent model year, vehicle or engine" clearly encompasses fuels utilized in subsequent model years, such as Tier 3 E10 certification fuel. In particular the reference to a certification fuel for a "subsequent model year" permits our comparison of E15 to Tier 3 E10 certification fuel, a fuel utilized in the certification of MY2020 and later light-duty motor vehicles.

For this CAA sec. 211(f)(1) sub sim interpretation we are faced for the first time, however, with a situation where there are different gasolines used in the certification of different gasoline vehicles and equipment, and a different in-use gasoline (E15) that can only be used in a subset of in-use vehicles and engines. Because of this, the appropriate scope of review is all of the various vehicles and engines within which gasoline can be used, and our assessment under sub sim evaluates the appropriateness of fueling those vehicles and engines with various gasoline-ethanol blends. In this unique circumstance, we have the benefit of the CAA sec. 211(f)(4) waiver analyses that supported partial grants of CAA sec. 211(f)(4) waivers for E15 in 2010 and 2011. These data provide technical information useful to informing our sub sim analysis for E15. The use of data collected or analyzed in the context of a CAA sec. 211(f)(4) to inform a sub sim determination under CAA sec. 211(f)(1) is consistent with our prior practice. For example, in making the sub sim determination in our 1991 sub sim interpretive rule, we

[123] Webster's Third New International Dictionary (1976); see *Green v. Biddle*, 21 U.S. 1, 38 (1823) ("where the words of a law, treaty, or contract, have a plain and obvious meaning, all construction, in hostility with such meaning, is excluded").

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considered evidence that supported the CAA sec. 211(f)(4) waivers granted to methanol.[124] Based on the data in those waiver analyses, as well as additional data gathered in the eight years since that waiver, we have assessed whether E15 is sub sim to the Tier 3 E10 certification fuel for use in all of the vehicles and engines that could be exposed to fueling on E15 in-use.

In this action, we are also extending our assessment beyond those vehicles and engines certified under CAA sec. 206. We are again in a unique circumstance where due to our analysis under the CAA sec. 211(f)(4) waiver (which covers all motor vehicles, motor vehicle engines, nonroad engines, and nonroad vehicles), we have knowledge of the use of E15 in particular vehicles and engines causing or contributing to emission systems failures.[125] Because we have the benefit of this information, we find it appropriate to assess under 211(f)(1) whether E15 is sub sim to E10 when used in those vehicles and engines. Some of these vehicles and engines are certified under CAA sec. 213(a).[126] Therefore, we are also looking at whether E15 is sub sim to Tier 3 E10 certification fuel when used in nonroad products certified under CAA sec. 213(a).

In the proposal, we suggested that the comparison was relatively narrow – comparing the use of E15 to the use of Tier 3 E10 certification fuel in Tier 3 vehicles alone; i.e., the fuel utilized in the certification of that vehicle or engine. We received many comments suggesting this is not an appropriate assessment under CAA sec. 211(f)(1) and we are not taking this approach in this action. Instead, we have concluded that it is appropriate to broaden our analysis

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[124] 56 FR 5352, 5353 (February 11 ,1991). We explained that "although methanol is not included in the group of aliphatic alcohols and ethers covered by today's [sub sim interpretive rule] revision, the evidence in these fuel waiver dockets involving methanol supports the conclusion that unleaded gasolines containing aliphatic ethers and/or alcohols (excluding methanol), at up to 2.7 percent oxygen by weight, are substantially similar to unleaded gasoline used in light-duty vehicle emissions certification." Id.
[125] See 75 FR 68144 (November 4, 2010).
[126] CAA sec. 213(a)

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to consider the use of E15 in all vehicles and engines that could be exposed to fueling on E15 in-use to determine whether E15 is substantially similar to Tier 3 E10 certification fuel.

Many commenters suggested that CAA sec. 211(f)(1) should be protective of all vehicles and engines in the fleet. We agree, and this action protects vehicles and engines by finding that the use of E15 in any MY2000 or older light-duty gasoline motor vehicle, any heavy-duty gasoline motor vehicle or engine, any highway or off-highway motorcycle, or any gasoline-powered nonroad engines, vehicles or equipment is not sub sim to Tier 3 E10 certification fuel. We also maintain the prohibition on use in these vehicles, engines and equipment implemented in the MMR.[127] These actions are being taken to protect the vehicles and engines for which use of E15 would be harmful.

In past sub sim interpretative rules, we have provided physical and chemical characteristics of fuels and fuel additives that would be considered sub sim to certification fuel. These interpretative rules broadly applied to a variety of fuel and fuel additives. Then, at registration, fuel and fuel additive manufacturers must demonstrate whether their fuel or fuel additive is sub sim or has a CAA sec. 211(f)(4) waiver from being sub sim.

In this interpretative rule we are taking both steps for E15 as compared to tier 3 E10 certification fuel – interpreting what is "substantially similar" to tier 3 E10 certification fuel, and providing a narrow definition for gasoline-ethanol blends containing greater than ten and less than 15 percent ethanol, and fuel additives utilized in that fuel that is sub sim to tier 3 E10 certification fuel and determining that E15, as a fuel, is sub sim. We are putting forth our determination that E15 meeting certain criteria is sub sim when used in MY2001 and newer light-duty vehicles.

[127] 40 CFR 80.1504(a)(1).

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4. Criteria for Determining Whether a Fuel is "Substantially Similar"

In this action, we are considering whether E15 is sub sim to Tier 3 E10 certification fuel when used in all motor vehicles and motor vehicle engines certified under CAA sec. 206 and nonroad products certified under CAA sec. 213(a).

As discussed in Section II.A.4, CAA sec. 211(f)(1) prohibits fuel and fuel additive manufacturers from introducing into commerce fuel or fuel additives that are not substantially similar to fuel or fuel additives utilized in the certification of motor vehicles. CAA sec. 211(f)(4) provides a waiver from this prohibition for fuels and fuel additives that can be established that such fuel or fuel additive, or a specified concentration thereof, will not cause or contribute to a failure of any emission control device or system (over the useful life of the motor vehicle, motor vehicle engine, nonroad engine, or nonroad vehicle in which such device or system is used) to achieve compliance by the vehicle or engine with the emission standards to which it has been certified pursuant to CAA sec. 206 and 213(a).

To make this assessment, we have generally considered the effects of a fuel or fuel additive on emissions (exhaust and evaporative), materials compatibility, and driveability for motor vehicles and motor vehicle engines certified under CAA sec. 206.[128]

The criteria we consider when determining whether a fuel or fuel additive is sub sim to certification fuel under CAA sec. 211(f)(1) are similar to those criteria we consider when determining whether a new fuel or fuel additive should receive a waiver to CAA sec. 211(f)(1) under CAA sec. 211(f)(4). When determining whether a fuel or fuel additive is sub sim to certification fuel under CAA sec 211(f)(1), we have interpreted the criteria of emissions, materials compatibility, and driveability as necessary to ensure that any fuel or fuel additive

[128] See, e.g., 56 FR 5354 (February 11, 1991).

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determined to be sub sim will not impair the emission controls of vehicles, engines, and equipment, as intended by Congress. While the areas for consideration under CAA sec. 211(f)(1) and sec. 211(f)(4) are similar, the requirements in each provision differ. CAA sec. 211(f)(1) only requires that fuels be sub sim to certification fuel, while CAA sec. 211(f)(4) requires that the new fuel or fuel additive will not cause or contribute to any vehicles or engines exceeding their emissions standards over the fuel useful life of the vehicles or engines.

In practice, EPA has implemented CAA secs. 211(f)(1) and 211(f)(4) by evaluating similar criteria when defining which fuels are sub sim and when evaluating 211(f)(4) waiver requests (i.e., emissions, materials compatibility, and driveability).[129] This is because these three areas speak both to whether a fuel or fuel additive is sub sim to certification fuel and whether such a fuel will damage a vehicle or engine's emission controls. We consider these criteria to be intrinsically linked as they are intended to answer the same question: whether a fuels or fuel additive will harm emissions controls on vehicles and engines or result in increases in regulated emissions.

Furthermore, we believe that any new fuel or fuel additive that would cause or contribute to vehicles and engines exceeding emissions standards is, by definition, not substantially similar to certification fuel under sub sim. Given the intent of CAA sec. 211(f)(1) to protect emission controls, it would be inappropriate to define sub sim in a manner that included fuels or fuel additives that caused or contributed to vehicles exceeding their emissions standards. As a result, we have in the past interpreted sub sim conservatively to help ensure that this situation did not arise. We continue to believe that this is appropriate to ensure that CAA sec. 211(f)(1) protects the emission controls of vehicles and engines certified under CAA secs. 206 and 213.

[129] See 75 FR 68144-68145 (November 4, 2010).

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We also believe the converse is true for newer light-duty motor vehicles (i.e., MY2001 and newer). In older vehicles, especially MY2000 and older motor vehicles, where certified emission standards were relatively less stringent than more modern standards (i.e., National Low Emission Vehicle (NLEV), Tier 2, and Tier 3 vehicle emission standards), there was a substantial amount of headroom (i.e., the amount between the actual level at which a vehicle is certified and the standard that the vehicle is subject to, typically around 50 percent of the standard,[130] which allowed for fuels or fuel additives to significantly increase emissions in absolute terms without causing vehicles to exceed emission standards. In modern vehicles, with more stringent emissions standards, it is almost impossible to have large, absolute increases in emissions and have a vehicle or engine meet its emissions standards. Even small absolute changes in emissions can cause vehicles to exceed emission standards. We believe that when a relative increase in the emissions profile of a new fuel or fuel additive compared to a certification fuel is sufficient to result in vehicles and engines exceeding certified emissions standards in use, the new fuel or fuel additive is not substantially similar to the certification fuel since there is very little room in standards for small absolute changes. Thus, while our analysis accompanying the E15 partial waivers considered whether E15 caused or contributed to vehicles and engines exceeding emissions standards over the full useful lives of the vehicles, we believe that the same analysis can inform our determination and in what circumstances E15 is sub sim to Tier 3 E10 certification fuel.

In order to determine whether E15 is sub sim to Tier 3 E10 certification fuel, we must consider the effects that E15 would have on all vehicles, engines, and equipment relative to Tier 3 E10 certification fuel. For each class of vehicles, engines, and equipment, we need to evaluate

[130] See 75 FR 68111 (November 4, 2010).

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E15's relative effect on emissions, materials compatibility, and driveability. For the most part, we have already considered the effects of E15 on all vehicles, engines, and equipment certified under CAA secs. 206 and 213 in the E15 partial waivers and the MMR. In those actions, we evaluated the effect of E15 use on emissions (exhaust and evaporative), materials compatibility, and driveability over the full useful lives of MY2000 and older motor vehicles, MY2001 and newer light-duty motor vehicles, nonroad products (including motorcycles and marine engines), and heavy-duty gasoline-fueled vehicles. While the focus of the analysis for the E15 waiver decisions was on E15 relative to indolene (i.e., E0) and this sub sim determination is on E15 relative to E10, we generally anticipate that there would be less differences when E15 is compared to E10 in the national vehicle and engine fleet. A summary of our finding for these classes of vehicles and engines is presented below, but the full discussion and all data and literature used to support our findings is contained in the E15 waivers and the MMR and are incorporated here by reference and included in the docket. Although we incorporate the discussion and all data and literature in support of the E15 partial waivers, we are not reopening those waivers with this action. We separately discuss in sections II.C.6–8 the following vehicles and classes:

- MY2000 and older motor vehicles
- MY2001 through 2019 light-duty motor vehicles
- MY2020 and newer light-duty motor vehicles (i.e., Tier 3 vehicles)
- Vehicles, engines, and equipment prohibited from E15 use

Since Tier 3 certified vehicles did not exist at the time of the E15 waivers and the MMR, we consider those vehicles separately from the MY2001-2019 light-duty vehicles. As described in Section II.C.9, it is appropriate for us to restrict the applicability of this new definition of sub

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sim to only those vehicles, engines, and equipment for which we are determining that E15 is sub sim to Tier 3 certification fuel.

5. Impact of Volatility on "Substantially Similar"

In determining whether a fuel is substantially similar, our analysis compares a fuel (in this case, E15) to a fuel utilized in the certification of motor vehicles (in this case, Tier 3 E10 certification fuel). Our certification fuel regulations specify a volatility limit for Tier 3 E10 certification fuel of 9.0 psi.[131] In this action, we are also considering our sub sim interpretation, in the context of our interpretation of CAA sec. 211(h)(4) described above.

EPA proposed two alternative analyses for a sub sim interpretation for E15. The first analysis compared E15 at 10.0 psi – i.e., after application of the CAA sec. 211(h)(4) waiver – to E10 certification fuel at 9.0 psi RVP. The second analysis compared E15 at 9.0 psi RVP to E10 certification fuel at 9.0 psi RVP. For the reasons explained below, we have adopted the latter interpretation in this final action – comparing E15 at 9.0 psi RVP to E10 certification fuel at 9.0 psi RVP. As stated in Section II.A.1, CAA sec. 211(f) exists to protect the emissions control systems of vehicles and engines and thus prevent the degradation of those systems. The emissions control systems of vehicles and engines have become increasingly sensitive to changes in volatility as emissions standards have become increasingly stringent over time. Therefore, changes in volatility can also affect the efficacy of evaporative emissions systems. It would be inappropriate to completely ignore the volatility of a fuel in evaluating whether it is sub sim, especially as volatility relates to evaporative emissions. We continue to believe that the volatility of fuel is important to consider when determining whether a fuel or fuel additive is substantially similar to fuel utilized in the certification of vehicles and engines under CAA sec. 211(f)(1). In

[131] See 79 FR 23414, 23526 (April 28, 2014). See also 40 CFR 1065.710.

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particular, the volatility of fuels can have a significant impact on the evaporative emissions (as well as exhaust emissions) from a vehicle, one of the considerations EPA has analyzed under sub sim historically and in this action, as described in this section.

In the proposal, we suggested that it may be appropriate to utilize our previous approach to volatility in a sub sim determination. In previous sub sim interpretative rules and corresponding definitions, we have required gasoline to only meet the volatility requirement of a single volatility class defined in ASTM Standard D4814-88, which range from 7.0 psi to 15.0 psi over the course of the year. We viewed this as appropriate when considering fuels and fuel additives that themselves are not impacting the volatility of gasoline during the summer months. When volatility impacts do not impair evaporative emissions controls that are important to air quality, we only need to consider the volatility impacts of the fuel or fuel additive to ensure that the fuel still falls within the bounds of what is considered to be gasoline. Therefore, we do not find it would be appropriate to compare E15 at 10.0 psi to E10 at 9.0 psi.

In this action, we are providing a new interpretation of CAA sec. 211(h)(4) that applies the 1-psi waiver to ethanol blends greater than 10 but no more than 15 volume percent ethanol. There, Congress provided a 1-psi waiver for the blending of gasoline-ethanol blends in order to promote ethanol blending in gasoline and ensure that those gasoline-ethanol blends could remain in use. CAA sec. 211(h)(4) does not provide any additional analysis or consideration for EPA prior to the application of the 1-psi waiver, nor does it provide guidance to EPA on the operability of the statutory provisions. E15 will be treated similarly to E10 under CAA secs. 211(f)(1) and 211(h)(4); blendstocks produced by fuel and fuel additive manufacturers typically meet a lower-RVP standard, and then, upon addition of ethanol by downstream parties, the blended fuel is given an RVP allowance, allowing up to 1.0 psi higher RVP. The approach we

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are taking gives meaning to both 211(f)(1) and its consideration of volatility in determining whether a fuel is sub sim, and 211(h)(4) which provides the 1-psi waiver. Therefore, the 1-psi waiver operates after other limitations on the introduction of E15 into commerce.

Therefore, the analysis under CAA sec. 211(f) is limited in scope in this particular situation. We need not address the 1-psi waiver that is expressly provided in another provision of CAA sec. 211 by analyzing emission impacts at the volatility level provided through the waiver in order to determine whether a fuel is substantially similar to a certification fuel. In this case, we need not look at the emissions impacts of E15 at 10.0 psi RVP because CAA sec. 211(h)(4), as interpreted in this action, will itself allow for the 1-psi waiver for E15. It is not the case that volatility is wholly irrelevant to our evaluation of what is sub sim, given that the level of RVP for gasoline certification fuel used to certify motor vehicles is 9.0 psi, but rather in this case, we find it would be inappropriate to limit under sub sim the volatility of a fuel that Congress allowed a 1-psi waiver from the volatility standard, under CAA sec. 211(h)(4). Our determination under sec. 211(f)(1) only allows E15 to be introduced into commerce without a CAA sec. 211(f)(4) waiver.[132] It is the operation of CAA sec. 211(h)(4) that allows E15 to receive the 1-psi waiver, resulting in E15 having to meet a 10.0 psi RVP limit, rather than a 9.0 psi RVP limit.

It follows that our point of comparison is E15 at 9.0 psi to Tier 3 E10 certification fuel (i.e., E10 at 9.0 psi). Additionally, our finding in this action that E15 is substantially similar to Tier 3 E10 certification fuel when used in MY2001 and newer light-duty motor vehicles is limited to E15 at 9.0 psi. In considering whether E15 is sub sim to tier 3 E10 certification fuel in the areas of materials compatibility, emissions, and driveability, we have done so comparing E15

[132]E10 was granted a waiver under CAA sec. 211(f)(4) without any conditions, in contrast to other CAA sec. 211(f)(4) waivers, which included, for example, conditions on fuel characteristics such as RVP.

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at 9.0 psi to Tier 3 E10 certification fuel at 9.0 psi. This approach recognizes the importance of volatility on evaporative emissions, one of the criteria we have historically considered in evaluating whether a fuel is sub sim.

6. Technical Rationale and Discussion for Tier 3 Vehicles (MY2020 and newer)

As discussed above, we have considered whether a fuel has similar effects on emissions, materials compatibility, and driveability when defining what fuels are substantially similar to certification fuel. Based on existing data and our engineering judgement, we have concluded that E15 at 9.0 psi RVP, with its additional oxygen content, would have effects on emissions, materials compatibility, and drivability substantially similar to Tier 3 E10 certification fuel (also at 9.0 psi RVP) in Tier 3 vehicles. While test data is still limited on Tier 3 vehicles, we have been able to draw upon test data and information on prior year motor vehicles (primarily NLEV and Tier 2 certified vehicles representative of MY2001 and newer light-duty motor vehicles) to support this conclusion as the impacts on Tier 3 motor vehicles are expected to be of a similar or lesser concern than on prior year motor vehicles.

a. Exhaust Emissions

In the 2010 and 2011 CAA sec. 211(f)(4) partial waivers for E15, we concluded from available data that neither the immediate combustion effects nor the long-term durability impacts of operating on E15 would prevent MY2001 and newer light-duty motor vehicles from complying with their full useful life emission standards.[133] This decision was supported by a large study conducted by DOE that tested 27 high-sales vehicles spanning model years 2000 to

[133] See 75 FR 68096 (November 4, 2010).

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2007[134] using ethanol splash blends made from Tier 2 certification gasoline (E0).[135] Analysis of the resulting data shows that E15 produced approximately 5 percent higher nitrogen oxides (NO_x), 4 percent higher non-methane organic gases (NMOG), and 4 percent lower CO compared to E10, though none of these differences was statistically significant. This work did not measure particulate matter (PM) emissions, but the expectation at the time was that PM should react to ethanol in a similar way as NMOG emissions.

Since the time of the 2010 and 2011 waiver decisions, additional data have been published on the effects of gasoline-ethanol blends on Tier 2 vehicles.[136] The EPAct/V2/E-89 study (referred to as the "EPAct study"), jointly conducted by EPA, DOE/National Renewable Energy Laboratory (NREL), and the Coordinating Research Council (CRC) in 2009 to 2010, looked at the short-term effects of five fuel properties, including ethanol concentration, on emissions from 15 high-sales light-duty vehicles from MY2008. Measurements included gaseous pollutants, and PM, a pollutant whose relationship to fuel properties had previously not been examined in much detail for gasoline vehicles. The size and scope of this study allowed for statistical models to be developed that could be used to correlate the impacts of the five fuel properties, including ethanol concentration, on emissions, enabling projections to be made of the emission impacts of a wide range of fuels, not limited to those tested. Results generally confirmed the NO_x and CO emission impacts described above from the addition of ethanol to gasoline, while indicating that the effects on NMOG and PM are more complex and depend on

[134] This study was designed to evaluate the long-term exhaust emissions effects of E15 on NLEV and Tier 2 light-duty vehicles.
[135] Knoll, K., West, B., Huff, S., Thomas, J. et al., "Effects of Mid-Level Ethanol Blends on Conventional Vehicle Emissions," SAE Technical Paper 2009-01-2723, 2009. This preamble refers to this study as "the DOE study".
[136] Tier 2 vehicles generally include light-duty motor vehicles produced between MY2007-2019. Some manufacturers began making Tier 2 vehicles as early as MY2004 and some can continue to do so as late as MY2021.

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other fuel parameters, such as the fuel's distillation profile and aromatics content.[137, 138] For example, comparing E15 and E10 fuels in the DOE study, the EPAct statistical models estimate approximately 2 percent higher NO_x, 4 percent lower NMOG, 2 percent lower CO, and 2 percent higher PM for E15. If we instead assume E10 market fuel as a starting point, the EPAct models project splash blending to E15 will produce 2 percent higher NO_x, 2 percent higher NMOG, 2 percent lower CO, and 4 percent higher PM.[139]

Another observation from this study was that the sensitivity of emissions to ethanol blending varied significantly across the test vehicles. Because the EPAct test fleet was designed to include a range of high-sales vehicles, it is reasonable to expect the average effect across the test vehicles to be representative of the in-use fleet of Tier 2 vehicles with port-fuel-injection.

Two studies (projects E-94-2 and E-94-3) published by CRC in 2017 and 2018, respectively, examined the effects of ethanol and PM Index on PM and other emissions from MY2012 to2015 Tier 2 vehicles, all with gasoline direct injection (GDI) engines and several with turbocharging.[140, 141] The E-94-2 study used a parametric design, meaning one fuel property was changed at a time while holding others constant; so for example, test fuels differing in ethanol content were matched in PM Index, T50, RVP, and several other properties.[142] Results

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[137] EPA Office of Transportation and Air Quality. "EPAct/V2/E-89: Assessing the Effect of Five Gasoline Properties on Exhaust Emissions from Light-Duty Vehicles Certified to Tier 2 Standards: Final Report on Program Design and Data Collection". EPA-420-R-13-004. April 2013. The preamble refers to this as "the EPAct Study".

[138] Butler, A., Sobotowski, R., Hoffman, G., and Machiele, P., "Influence of Fuel PM Index and Ethanol Content on Particulate Emissions from Light-Duty Gasoline Vehicles," SAE Technical Paper 2015-01-1072, 2015, doi:10.4271/2015-01-1072.

[139] Since these figures represent the output of multivariate models whose coefficients survived a process of statistical testing, they are interpreted as meaningful despite being small.

[140] Morgan, Peter; Smith, Ian; Premnath, Vinay; Kroll, Svitlana; Crawford, Robert. "Evaluation and Investigation of Fuel Effects on Gaseous and Particulate Emissions on SIDI In-Use Vehicles". SwRI 03.20955. Southwest Research Institute, San Antonio, TX. CRC E-94-2. Coordinating Research Council, Alpharetta, GA. March 2017.

[141] Morgan, Peter; Lobato, Peter; Premnath, Vinay; Kroll, Svitlana; Brunner, Kevin; Crawford, Robert. "Impacts of Splash-Blending on Particulate Emissions for SIDI Engines". SwRI 03.20955-1. Southwest Research Institute, San Antonio, TX. CRC E-94-3. Coordinating Research Council, Alpharetta, GA. June 2018.

[142] This parametric study design is referred to as "match blending", where the hydrocarbon components of each test fuel are adjusted so that specific properties, such as octane, RVP, and/or aromatics content, are matched across

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for the overall test fleet of 16 vehicles in E-94-2 showed no statistically significant effect of E10 relative to E0 for total hydrocarbons (THC), NO_x, or CO, while PM increased by 19 percent for the regular-grade (87 anti-knock index or AKI) test fuels. The E-94-3 study tested a four-vehicle subset on four E10 splash blends made from the E0 fuels in E-94-2, and found a PM increase of 21% on average, consistent with the effect found in the larger E94-2 study. Assuming this PM effect is linear over small fuel changes, we would expect around 10 percent higher PM when moving from E10 to E15. Comparing these results to the EPAct study and DOE study above suggests that later-technology vehicles with direct injection (though still certified to Tier 2 emission standards) have equal or lower sensitivity to ethanol for gaseous emissions, but may be more sensitive for PM.

Another study published in 2018 by the University of California, Riverside Center for Environmental Research and Technology (CE-CERT) looked at the effects of ethanol and aromatics on emissions from five vehicles, model years 2016 or 2017, all with GDI engines and certified to Tier 3 and/or LEV III standards.[143] While this provides a useful look at recent-model technology impacts, it should be noted that, because this study only employed five test vehicles, we are less certain how well this study's average effects represent this technology type in the in-use fleet. The test fuels included E0, E10, and E15 that were closely aligned on aromatic content (at two levels, 21 percent and 29 percent by volume) but the mid-point distillation temperature (T40-T50) was uncontrolled, and declined significantly as the ethanol content increased.[144]

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different ethanol levels in the final blends. This is in contrast to "splash blending", where no effort is made to control fuel properties as ethanol is added, making it impossible to ascertain whether observed impacts are due to the presence of ethanol or the other resulting changes in the fuel.

[143] Karavalakis, G; Durbin, T; Yang, J; Roth, P., "Impacts of Aromatics and Ethanol Content on Exhaust Emissions from Gasoline Direct Injection (GDI) Vehicles". University of California, CE-CERT, April 2018.

[144] The EPAct study found T50 to have a meaningful and statistically significant impact on NMOG, NMHC, NO_x, and PM emissions. Consequently, the results of this study are likely confounded by changes in mid-point distillation, making it difficult to ascertain statistically significant impacts of the ethanol content changes and limiting the usefulness of the study.

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Results of this study showed no statistically significant difference in NO_x, non-methane hydrocarbons (NMHC), or PM when comparing E15 to E10 at either aromatics level. While not statistically significant, a trend of increasing PM with an increase in ethanol content was observed at the higher aromatics level, suggestive of a reinforcing interaction between ethanol and aromatics that has been described in other published work. At the lower aromatics level, the trend suggests PM increase from E0 to E10 and then decrease from E10 to E15.

While there are limited data on Tier 3 vehicles, the results of the Tier 2 and Tier 3 vehicle studies cited above are nevertheless largely consistent with each other given that ethanol blending affects many other fuel properties, given that ethanol is blended into gasoline in various ways that affect the collateral property changes differently, and given the varying impacts from vehicle to vehicle. This makes it difficult to interpret trends across the body of literature without detailed information on multiple fuel properties. However, since the early 1990s, a number of programs have studied the effects of ethanol on emissions from earlier vintage vehicles, and based on these studies, emissions models have been published, including the Complex Model,[145] Predictive Model,[146] and MOVES simulator,[147] and the results from the more recent studies are also largely consistent with them given the vehicle to vehicle differences, uncontrolled variables, and statistical uncertainty. Namely, ethanol blending causes slight increases in NO_x emissions and slight decreases for CO emissions.

Earlier studies did not evaluate PM emission impacts from ethanol blending, so we are limited to consideration of only the more recent studies. The CRC E-94-3 and CE-CERT studies

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[145] See "Complex Model Used to Analyze RFG and Anti-dumping Emissions Performance Standards," available at *https://www.epa.gov/fuels-registration-reporting-and-compliance-help/complex-model-used-analyze-rfg-and-anti-dumping*.

[146] See "California Gasoline Predictive Models, and CARBOB Model Development," available at *https://www.arb.ca.gov/fuels/gasoline/premodel/pmdevelop.htm*.

[147] See "Moves and Other Mobile Source Emissions Models," available at: *https://www.epa.gov/moves*.

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both tested ethanol splash blends in recent model year GDI vehicles, and one found an increase in PM with incremental ethanol (E0 to E10) while the other showed no significant impact (E10 to E15). Neither study controlled T50 between ethanol levels, but a notable difference between them was the range of T50 levels in the test fuels. The E10 test fuel in the CE-CERT study had lower T50 levels and additional ethanol blending depressed T50 significantly, more consistent with what we would expect in a median market fuel moving to E15, versus the higher T50s in the CRC study where E10 was the upper blend limit.[148, 149] Applying the findings of the EPAct study to the CE-CERT study suggests that the PM reduction from declining T50 in the low-aromatic CE-CERT E15 would have offset a small PM increase caused by ethanol's hindrance of droplet evaporation, as described elsewhere in the literature.[150, 151] In the case of the high-aromatics fuels in that study, the PM trend suggests this T50 benefit was not sufficient to fully overcome the droplet cooling effect. As a general conclusion, it seems reasonable to accept the CE-CERT study conclusion that moving from E10 to E15 in a T50, aromatics, and PM Index space representative of typical market fuels is not expected to produce a significant increase in tailpipe PM emissions from Tier 2 and 3 vehicles.

While some criteria pollutants would have relative increases (NO_x) and others have similar decreases (VOC and CO) while still others are less certain (PM) on E15 compared to E10, these changes are all relatively small. In the E15 CAA sec. 211(f)(4) partial waivers, we determined that effects of this magnitude were too small to cause or contribute to MY2001 and

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[148] "Fuel Trends Report: Gasoline 2006-2016." US EPA Office of Transportation and Air Quality, Washington, DC. EPA420-R-17-005. October, 2017. See Section 6.C.f. on E200 data, which can be converted to T50.
[149] "Determination of the Potential Property Ranges of Mid-Level Ethanol Blends." American Petroleum Institute, Washington, DC. April 2010. See Figure 7.
[150] Butler, A., Sobotowski, R., Hoffman, G., and Machiele, P., "Influence of Fuel PM Index and Ethanol Content on Particulate Emissions from Light-Duty Gasoline Vehicles," SAE Technical Paper 2015-01-1072, 2015.
[151] Burke, S., Rhoads, R., Ratcliff, M., McCormick, R. et al., "Measured and Predicted Vapor Liquid Equilibrium of Ethanol-Gasoline Fuels with Insight on the Influence of Azeotrope Interactions on Aromatic Species Enrichment and Particulate Matter Formation in Spark Ignition Engines," SAE Technical Paper 2018-01-0361, 2018.

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newer light-duty motor vehicles to exceed the vehicles' certified exhaust emissions standards and we expect that this would also be the case for Tier 3 vehicles. To put this into context, Table II.C-1 shows gram-per-mile exhaust emission standards (limits) for FTP-cycle certification of new light-duty motor vehicles under recent Federal regulatory programs. Vehicle manufacturers typically try to calibrate their products to have compliance margins of on the order of 50 percent when new to ensure they will meet emission requirements over their full useful lives, meaning their actual emission level is often about half the standard. The Tier 3 standards are still being phased in, but we expect compliance margins may be somewhat smaller as the lower emission levels such as Tier 3 Bin 30 are more challenging to meet. In any case, these margins are significantly larger than even the 10 percent PM effect estimated from the CRC E-94-3 study.

Table II.C-1: FTP-Cycle Exhaust Emission Standards for Recent Light-Duty Programs

Certification Level / Bin	NO_x (g/mi)	NMOG (g/mi)	CO (g/mi)	PM (mg/mi)
NLEV / TLEV	0.4	0.125	3.4	--
Tier 2 / Bin 5	0.05	0.075	3.4	10
Tier 3 / Bin 30	0.030 NMOG + NO_x		3.4	3

While CAA sec. 211(f)(1) does not define the magnitude of acceptable emission impacts or other specific criteria for how to determine whether a fuel or fuel additive is substantially similar to certification fuel, we believe that the small changes in exhaust emissions compared to the certification levels for E15 relative to Tier 3 E10 certification fuel used in Tier 3 vehicles can be considered to be within the scope of what we have determined to be sub sim in our prior sub sim interpretive rulemakings. For example, if a Tier 3 vehicle were certified on E10 fuel with PM emissions of 2.0 mg/mi (33% compliance margin), a 10% PM increase due to fueling the vehicle with E15 would increase its PM emissions to 2.2 mg/mi. This is still significantly below its 3 mg/mi compliance limit (26% compliance margin).

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Therefore, we believe that E15 is sub sim to Tier 3 E10 certification fuel from the perspective of exhaust emissions for Tier 3 light-duty motor vehicles.

b. Evaporative Emissions

EPA has set evaporative emission standards for motor vehicles since 1971. During the ensuing years, these evaporative standards have continued to evolve, resulting in additional evaporative emissions reductions. Consideration of whether E15 is substantially similar to Tier 3 E10 certification fuel for evaporative emissions requires consideration of the applicable evaporative emissions standards to which the particular motor vehicles were certified, in this case Tier 3 motor vehicles. There are now six main components to motor vehicle evaporative emissions that are important for our standards: (1) Diurnal (evaporative emissions that come off the fuel system as a motor vehicle heats up during the course of the day); (2) refueling emissions (evaporative emissions that come off the fuel system as the vehicle is refueled); (3) hot soak (evaporative emissions that come off a hot motor vehicle as it cools down after the engine is shut off); (4) running loss (evaporative emissions that come off the fuel system during motor vehicle operation); (5) permeation (evaporative emissions that come through the walls of elastomers in the fuel system and are measured as part of the diurnal test); and (6) unintended leaks due to deterioration/damage that is now largely monitored through onboard diagnostic systems.

For hot soak, permeation, and unintended leak evaporative emissions, we expect that E15 would have a similar effect as Tier 3 E10 certification fuel. In the E15 partial waivers, we stated that we did not expect that E15 would have an effect on hot soak, permeation, and unintended leak evaporative emissions based on a review of the data and on the fact that auto manufacturers have been required to age vehicles on E10 for evaporative emissions durability testing since MY2004. We are not aware of any information suggesting that Tier 3 vehicles would behave

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differently since they are aged for evaporative emissions durability on E15 and certified on Tier 3 E10 certification fuel. Furthermore, in our review of the testing of permeation on pre-Tier 3 vehicles (i.e., prior to changes made to address permeation) in the E15 partial waiver decisions, while ethanol was shown to significantly worsen permeation emissions, the effect appears to be fully reached at E10, as there was no discernable worsening of the impacts at higher ethanol concentrations.[152] Vehicle manufacturers have now redesigned their fuel systems to control permeation on E10 sufficiently to meet the Tier 3 evaporative emission standards. Consequently, we do not anticipate permeation emissions with E15 to be any higher than with E10.

Refueling, diurnal, and running loss evaporative emissions are mostly a function of volatility of the fuel. As discussed in Section II.C.4, to determine whether a fuel is sub sim to Tier 3 E10 certification fuel, it is necessary to evaluate the volatility of the fuel relative to Tier 3 E10 certification fuel. This is because the volatility plays a significant role in these evaporative emission sources independent of the level of ethanol concentration in the fuel. For this sub sim determination, we are evaluating whether E15 at 9.0 psi is sub sim to Tier 3 E10 certification fuel at 9.0 psi. In general, if two fuels have the same RVP, the expected refueling, diurnal, and running loss evaporative emissions from the two fuels would be similar regardless of the ethanol content. In this situation, since there is no difference in RVP, E15 at 9.0 psi RVP would be expected to have essentially identical evaporative emissions to E10 at 9.0 psi RVP from refueling, diurnal, and running loss emissions sources. We find that E15 at 9.0 psi RVP is sub sim to Tier 3 E10 certification fuel at 9.0 psi RVP for Tier 3 light-duty motor vehicles.

[152] See 75 FR 68115-68120 (November 4, 2010) and 76 FR 4675-4681 (January 26, 2011).

c. Materials Compatibility

Materials compatibility is a key factor in considering what fuels or fuel additives are sub sim to certification fuel, insofar as poor materials compatibility can lead to serious exhaust and evaporative emission compliance problems not only immediately upon use, but especially over the full useful life of vehicles and engines. In the E15 partial waivers, we determined that the use of E15 in MY2001 and newer light-duty motor vehicles "will not [result in] materials compatibility issues that lead to exhaust or evaporative emissions exceedances."[153] We explained that "[n]ewer motor vehicles, such as Tier 2 and NLEV vehicles (MY2001 and newer), on the other hand, were designed to encounter more regular ethanol exposure compared to earlier model year motor vehicles" since EPA's in-use verification program would require auto manufacturers to place more "emphasis on real world motor vehicle testing" prompting manufacturers to consider commercially available fuels containing ethanol when developing and testing their emissions systems.[154] Based on this assessment, in addition to confirmatory data from DOE's extensive test program that aged MY2001 and newer motor vehicles up to 120,000 miles on E15, we concluded that MY2001 and newer motor vehicles would not have materials compatibility issues with E15.

Since granting the E15 partial waivers, E15 is now used as an aging fuel for service accumulation for evaporative durability testing.[155] Auto manufacturers have used E15 for service accumulation for evaporative durability testing since at least MY2014. This means that many Tier 2 vehicles since MY2014 and all Tier 3 vehicles have been aged on E15 and have been designed with materials capable of handling E15 for extended periods of time. As such, we

[153] See 75 FR 68122-68123 (November 4, 2010); 76 FR 4681 (January 26, 2011).
[154] See 75 FR 68122 (November 4, 2010).
[155] See 40 CFR 86.1824-08(f)(1).

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expect that Tier 3 vehicles would have similar, if not better, materials compatibility with E15 compared to MY2001 and newer motor vehicles since Tier 3 vehicles since manufacturers are required to use E15 as an aging fuel for evaporative durability testing and therefore design these motor vehicles to encounter E15 in-use.

Therefore, we would not expect any materials compatibility issues from E15 in Tier 3 vehicles and we find that E15 would have substantially similar materials compatibility effects as Tier 3 E10 certification fuel.

d. Driveability

A change in the driveability of a motor vehicle that results in significant deviation from normal operation (e.g., stalling, hesitation, etc.) would result in increased emissions. These increases may not be demonstrated in the emission certification test cycles but instead are present during in-use operation. In addition to consumer dissatisfaction, a motor vehicle stall and subsequent restart can result in significant increases in emissions because emission rates are typically highest during vehicle starts, especially cold starts. Further, concerns exist if the consumer or operator tampers with the motor vehicle in an attempt to correct the driveability issue since consumers may attempt to modify a motor vehicle from its original certified configuration. Thus, in defining substantially similar we have considered whether fuels or fuel additives have an adverse effect on driveability relative to certification fuel.

We concluded in the E15 partial waivers that we did not believe that E15 would cause driveability concerns for MY2001 and newer motor vehicles. We reviewed the data and information from the over 30 different test programs evaluated to grant the E15 partial waivers and we found "no specific reports of driveability, operability or on-board diagnostics (OBD)

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issues across many different vehicles and duty cycles including lab testing and in-use operation."[156]

After granting the partial E15 waivers, we believe that late model Tier 2 and Tier 3 vehicles also have better capability of operating on E15, since as mentioned above, auto manufacturers have been required to use E15 as an aging fuel for evaporative durability aging since at least MY2014.

We also believe that the producers and distributors of gasoline adhere to ASTM specifications for gasoline (i.e., ASTM D4814),[157] which helps address the driveability of gasoline that contains up to 15 volume percent ethanol. As E15 has been in the market since at least 2012, industry, through ASTM International, has worked to develop voluntary consensus-based standards to help ensure the quality of E15 made and used in the marketplace. For example, ASTM D4814-18c includes language to ensure that gasoline-ethanol blends have certain physical and chemical characteristics, such as distillation parameters falling within specified ranges, to ensure that when the gasoline-ethanol blended fuel is used, driveability issues will not arise.[158]

For these reasons, we find that E15 would have similar driveability characteristics to Tier 3 E10 certification fuel for Tier 3 light-duty motor vehicles.

e. Conclusion

For reasons described above, we find that E15 is substantially similar to Tier 3 E10 certification fuel when E15 is used in Tier 3 vehicles (i.e., MY2020 and newer light-duty motor vehicles). As discussed above, when interpreting which fuels and fuel additives are sub sum to

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[156] See 76 FR 4681–82 (January 26, 2011).
[157] ASTM Standard D4814, 2019, "Standard Specification for Automotive Spark-Ignition Engine Fuel," ASTM International, West Conshohocken, PA, 2003, DOI: 10.1520/C0033-03, *https://www.astm.org*.
[158] Id.

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certification fuel under CAA sec. 211(f)(1), we consider the potential effects that a new fuel or fuel additive may have on a motor vehicle's emissions (exhaust and evaporative), materials compatibility, and driveability. Regarding emissions, we expect that E15 would exhibit similar exhaust and evaporative emissions for Tier 3 vehicles certified on Tier 3 E10 certification fuel. For materials compatibility and driveability, we find E15 is sub sim since E15 is being used as a service accumulation fuel for evaporative emissions aging and for the reasons described in the E15 partial waivers regarding materials compatibility and driveability for MY2001 and newer light-duty motor vehicles. For all the reasons described above, we find E15 is sub sim to Tier 3 E10 certification fuel for Tier 3 light-duty motor vehicles.

7. Technical Rationale for MY2001-2019 Light-duty Motor Vehicles

We find that E15 is sub sim to Tier 3 E10 certification fuel in MY2001-2019 light-duty motor vehicles. As discussed in Section II.C.4, it is necessary to consider how E15 would perform relative to Tier 3 E10 certification fuel in each class of vehicles, engines, and equipment. In the E15 partial waivers, we considered the relative effects of E15 to E10 when used in these vehicles as a basis to determine that MY2001-2019 light-duty motor vehicles will not experience issues with materials compatibility and driveability.[159] Additionally, as described above in the analysis for Tier 3 vehicles, much of the emissions testing to date to evaluate the effects of E15 has been conducted on vehicles representative of MY2001-2019 light-duty vehicles. Based on this existing data and our prior engineering judgment expressed in the E15 partial waivers, we have concluded that E15, with its additional oxygen content and identical RVP relative to Tier 3 E10 certification fuel, would have effects on emissions, materials

[159] See 75 FR 68124 (November 4, 2010) and 76 FR 4681-4682 (January 26, 2011)

compatibility, and drivability substantially similar to E10 in MY2001-2019 light-duty motor vehicles.

a. Exhaust Emissions

In the E15 partial waivers, we argued that auto manufacturers developed vehicles around MY2001 to accommodate in-use exposure to E10, and that this accommodation would result in similar performance of emissions, materials compatibility, and driveability on E15.[160] We also pointed to the large compliance margins in certified exhaust emissions for NLEV and Tier 2 vehicles (collectively MY2001-2019 vehicles) in the E15 waiver decisions.[161] We contextualized the relatively small changes in emissions as a small fraction of the compliance margin and argued that these small changes would not cause MY2001-2019 motor vehicles to exceed their emissions standards.[162] We continue to believe that our engineering analysis presented in the E15 waivers is appropriate, and that MY2001-2019 motor vehicles will have substantially similar exhaust emissions on E15 when compared to Tier 3 E10 certification fuel.

As we stated in the first E15 partial waiver, "the largest improvements to emission controls and hardware durability came after 2000 with the introduction of several new emission standards and durability requirements forcing manufacturers to better account for the implications of in use fuels on the evaporative and exhaust emission control systems."[163] Overall, the transition from Tier 1 (generally pre-MY2000 and older vehicles) to NLEV (generally MY2001-2003) and then to Tier 2 (generally MY2004-2019) exhaust standards called for design changes that all moved in the same direction of increased control of exhaust emissions through increasingly sophisticated emissions control systems aimed at reducing the level of emissions

[160] See 75 FR 68125-68126 (November 4, 2010) and 76 FR 4667 (January 26, 2011).
[161] See 75 FR 68111 (November 4, 2010) and 76 FR 4669 (January 26, 2011).
[162] Id.
[163] See 75 FR 68125 (November 4, 2010).

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created by the combustion of the fuel in the engine combined with increased control of these emissions by the catalyst system. This increasing sophistication was based on better air fuel ratio control, and increased efficiency, durability and faster light-off of the catalyst. While Tier 2 standards called for the most sophisticated engine and catalyst system designs at the time, the NLEV standards prompted major redesign efforts by manufacturers that were later expanded and advanced even further to meet, and earn credits towards compliance with, Tier 2 standards. From an engineering perspective, the emissions control systems of pre-Tier 2, NLEV vehicles are significantly more robust than those used in MY2000 and older motor vehicles and more like those of Tier 2 motor vehicles in terms of the degree of sophistication of engine controls and catalyst technology. In the second E15 waiver decision, we reviewed the available emission control technologies of NLEV vehicles to determine that they had adapted most of the control strategies that were employed in Tier 2 vehicles.[164] These control strategies involved controlling for oxygen content of fuels to largely reduce the risks associated with gasoline-ethanol blended fuel use.

Furthermore, we highlighted that another important regulatory change for improving the exhaust emissions control durability of MY2001-2006 light-duty motor vehicles was the Compliance Assurance Program ("CAP2000"), which took effect by MY2000 for light-duty motor vehicles. CAP2000 placed more emphasis on in-use performance of vehicle emission controls, including the potential impacts of operation from different available in-use fuels. In particular, the In-use Verification Program (IUVP) introduced under CAP2000 requires manufacturers to perform exhaust and evaporative emissions tests on customer vehicles in the in-

[164] See 76 FR 4669 (January 26, 2011).

use fleet to confirm the durability projections that manufacturers make at certification. These motor vehicles would now be exposed to gasoline-ethanol blends in use.

Another consideration in our engineering analysis in the second E15 waiver decision was the extent to which MY2001-2006 light-duty motor vehicles emit at levels below the applicable standards and therefore have a compliance margin. Compliance margins are generally designed into motor vehicles by manufacturers to account for possible variations in production vehicles and changes to vehicle emissions control systems from actual field usage, such as how the vehicle is typically operated and the type of fuel used. The larger the compliance margin, the more likely it is that vehicles would accommodate any emissions increases from fueling with E15 and continue to meet emission standards in-use. In the second E15 waiver decision, we surveyed the certification data for MY2001-2006 motor vehicles and the results showed that the average full useful life compliance margin (which accounts for in-use deterioration) for the entire MY2001– 2006 light-duty motor vehicle fleet was approximately 66 percent.[165] We also reviewed in-use data from the IUVP program, which indicated that motor vehicles actually achieved a similar compliance margin when operated in real-world conditions.[166] The size of the compliance margins for MY2001-2006 light-duty motor vehicles suggests manufacturers were in fact designing and building motor vehicles that were significantly cleaner than required as part of a planned migration to technologies capable of meeting the tighter Tier 2 standards.

We relied on the available literature, primarily the data collected from the DOE catalyst study, to confirm our engineering analysis of the emissions behavior of NLEV and Tier 2 vehicles. These data showed that E15 would not cause NLEV or Tier 2 vehicles to exceed their emissions standards both in the short- and long-term. Furthermore, most of the data discussed in

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[165] See 76 FR 4669 (January 26, 2011).
[166] See 75 FR 68111-68112 (November 4, 2010) and 76 FR 4669 (January 26, 2011).

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Sections II.C.6.a and II.F were based on tests conducted on MY2001-2019 motor vehicles and we believe that the estimated emissions changes from using E15 relative to Tier 3 E10 certification fuel or E10 market fuel in MY2001-2019 are representative of vehicle technologies classes in this time period (i.e., NLEV, Tier 2, and early Tier 3 vehicles).

Because of the extensive analysis in the E15 waiver decisions and the large compliance margins in the MY2001-2019 light-duty motor vehicle fleet, we find that E15 is sub sim to Tier 3 E10 certification fuel when used in those vehicles.

b. Evaporative Emissions

As mentioned in Section II.C.6.b, we evaluate evaporative emissions in terms of six sources of evaporative emissions: (1) diurnal emissions, (2) refueling emissions, (3) hot soak, (4) running loss, (5) permeation, and (6) emissions from unintended leaks. In the E15 waiver decisions,[167] we explained that as with exhaust emissions, emission control improvements adopted in response to applicable regulatory requirements are important to the consideration of the potential impact of a fuel or fuel additive on evaporative emissions. A number of regulatory actions occurred by MY2001 that placed an emphasis on the control of evaporative emissions and on real-world testing of motor vehicles, which in turn led to changes in evaporative emission control systems. These regulatory changes, together with test data reviewed in the E15 waivers,[168] support the conclusion that MY2001-2019 light-duty motor vehicles operated on E15 at 9 psi RVP would have similar evaporative emissions if those vehicles were operated on Tier 3 E10 certification fuel.

As mentioned in Section II.C.6.b, we evaluated the effects E15 would have relative to E10 for hot soak, permeation, and unintended leak evaporative emissions in MY2001-2019

[167] See 75 FR 68112-68113 (November 4, 2010) and 76 FR 4673-4674 (January 26, 2011).
[168] See 75 FR 68120 (November 4, 2010) and 76 FR 4663-4664 (January 26, 2011).

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motor vehicles in the E15 waivers. We found that motor vehicles designed and aged on E10 for evaporative emissions durability would have similar hot soak, permeation, and unintended leak evaporative emissions if operated on E15. As explained in the first E15 partial waiver, since these elements are largely a function of the materials used to design the evaporative emission controls, if an auto manufacturer designed a system to encounter a gasoline-ethanol blended fuel in-use, it is likely that the vehicle's evaporative emissions control would handle E10 and E15 similarly. Therefore, we find that E15 is sub sim to Tier 3 E10 certification fuel for hot soak, permeation, and unintended leak evaporative emissions for MY2001-2019 motor vehicles.

Also, as mentioned in Section II.C.6.b, diurnal, refueling, and running loss emissions are mostly a function of the volatility of the gasoline used. If two fuels had the same volatility, we would expect the same or similar diurnal, refueling, and running loss emissions. As we are only considering whether E15 at 9.0 psi RVP is sub sim to Tier 3 E10 certification fuel with 9.0 psi RVP we can conclude that E15 at 9.0 psi RVP is sub sim to Tier 3 E10 certification fuel in MY2001-2019 light-duty motor vehicles. We base this finding on the fact that E15 at 9.0 psi would have the same volatility as Tier 3 E10 certification fuel.

c. Materials Compatibility

We find that E15 at 9 psi RVP is substantially similar to Tier 3 E10 certification fuel when used in MY2001-2019 light-duty motor vehicles as it relates to materials compatibility. Materials compatibility is a factor in considering whether a fuel is sub sim since poor materials compatibility can lead to serious exhaust and evaporative emissions compliance problems not only immediately upon using the new fuel or fuel additive, but especially over time.

Similar to Tier 3 vehicles, pre-Tier 2 and Tier 2 vehicles (MY2004-2019) were aged with E10 for evaporative durability beginning with MY2004. Due to this long-term exposure of E10,

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we explained in the first E15 waiver decision that these motor vehicles would not have materials compatibility issues. For NLEV vehicles, in the second E15 waiver decision, we argued that "the CAP2000 in-use testing and durability demonstration requirements as well as the introduction of OBD leak detection monitors and enhanced evaporative emission test procedures have led manufacturers to design vehicles using materials that will continue to function properly with respect to evaporative emissions when gasoline-ethanol blends are used."[169] This includes materials compatible with long-term use of gasoline-ethanol blends, as the standards apply for the useful life of the vehicle, and the IUVP test program and the OBD leak detection requirement monitor compliance throughout the useful life. We noted in the second E15 waiver decision that data from IUVP, EPA's in-use surveillance program, and manufacturer emission defect information reports had not detected any failures attributable to ethanol up to E10 in these vehicles.[170]

Based on our engineering judgment discussed in the E15 waiver decisions, we expect that there will not be materials compatibility issues with E15 in MY2001–2019 light-duty motor vehicles. Therefore, we conclude that E15 at 9.0 RVP is sub sim to Tier 3 E10 certification fuel in MY2001-2019 light-duty motor vehicles.

d. Driveability

We find that E15 at 9.0 psi RVP is substantially similar to Tier 3 E10 certification fuel when used in MY2001-2019 light-duty motor vehicles as it relates to driveability. As mentioned in Section II.C.7.a and described in the E15 partial waivers, auto manufacturers developed light-duty motor vehicles to use gasoline-ethanol blends that were becoming more prevalent in the marketplace by MY2001. This was tied to the implementation of new vehicles emission

[169] See 76 FR 4681 (January 26, 2011).
[170] See 76 FR 4681 (January 26, 2011).

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standards that focused on in-use performance in fuels; namely, the CAP 2000 program and NLEV for exhaust emissions, and the enhanced evaporative emission standards.[171] Additionally, as auto manufacturers began complying with the Tier 2 standards (beginning with MY2004), auto manufacturers were required to use E10 as an aging fuel for evaporative emission durability testing.[172] Due to this focus on in-use performance for MY2001 and newer light-duty motor vehicles, which were designed to run on E10 in use, we believe E15 would affect driveability similarly to Tier 3 E10 certification fuel used in these vehicles.

We evaluated driveability of MY2001-2019 vehicles extensively in the E15 partial waivers. In the first E15 partial waiver, we found that "[t]here is no evidence from any of the test programs cited by Growth Energy or in the data from the DOE Catalyst Study of driveability issues for Tier 2 motor vehicles fueled with E15 that would indicate that use of E15 would lead to increased emissions or that might cause motor vehicle owners to want to tamper with the emission control system of their motor vehicle."[173] In the second E15 partial waiver, we found that "[t]he Agency's review of the data and information from the different test programs finds no specific reports of driveability, operability or OBD issues across many different vehicles and duty cycles including lab testing and in-use operation [in MY2001-2006 light-duty motor vehicles]."[174]

Based on both our engineering rationale that MY2001 and newer light-duty motor vehicles were designed by auto manufacturers to operate on gasoline-ethanol blends and our thorough review of the available literature in the E15 partial waivers, which showed no driveability, operability or OBD issues across over 30 reviewed studies on E15 covering

[171] See 75 FR 68104 (November 4, 2010) and 76 FR 4680 (January 26, 2011).
[172] See 40 CFR 86.113-04.
[173] See 75 FR 68097 (November 4, 2010).
[174] See 76 FR 4681-4682 (January 26, 2011).

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MY2001 and newer vehicles, we find that E15 at 9.0 psi RVP is substantially similar to Tier 3 E10 certification fuel when used in MY2001-2019 light-duty motor vehicles as it relates to driveability.

e. Conclusion

We find that E15 at 9.0 psi RVP is sub sim to Tier 3 E10 certification fuel when used in MY2001-2019 vehicles. In conjunction with our finding that E15 at 9.0 psi RVP is sub sim to Tier 3 E10 certification fuel when used in MY2020 and newer light-duty motor vehicles (i.e., Tier 3 certified light-duty vehicles) as discussed in Section II.C.6, these findings collectively mean that we find that E15 at 9.0 psi RVP is sub sim to Tier 3 E10 certification fuel when used in MY2001 and newer light-duty vehicles.

8. Technical Rationale for Other Vehicles, Engines, and Equipment

We conducted an analysis of whether E15 is substantially similar to E10 certification fuel for MY2000 and older light-duty motor vehicles, heavy-duty gasoline-fueled motor vehicles, and nonroad vehicles, engines, and equipment. For the reasons explained below, we conclude that E15 is not sub sim to E10 certification fuel for these types of vehicles and engines.

a. MY2000 and older light-duty motor vehicles

We conclude that E15 would not be substantially similar to Tier 3 E10 certification fuel used in MY2000 and older light-duty motor vehicles. As we argued in the first E15 partial waiver decision and in the MMR, MY2000 and older light-duty motor vehicles were generally not designed to operate on gasoline-ethanol blended fuels.[175] We determined that E15 in these vehicles could lead to increases in emissions that result in vehicles exceeding certified emission

[175] See 75 FR 68125-68126 (November 4, 2010) and 76 FR 44412 (July 25, 2011).

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standards and issues with materials compatibility as auto manufacturers likely did not use components compatible with ethanol in fuel systems.

MY2000 and older light-duty motor vehicles have much less sophisticated emissions control systems compared to more modern vehicles and, may experience conditions that lead to immediate emission increases and may exceed their emission standards if operated on E15. Vehicles produced prior to the mid-1980s were equipped primarily with carbureted engines. The air/fuel (A/F)ratio of the carburetor is preset at the factory based on the expected operating conditions of the engine such as ambient temperature, atmospheric pressure, speed, and load. As a result, carburetors have "open loop" fuel control, which means that the air and fuel are provided at a specified, predetermined ratio that is not automatically adjusted during vehicle operation. As fuel composition can vary, an engine with a carburetor and open loop fuel control would never detect whether the desired A/F ratio was achieved. Since the vehicles produced prior to the mid-1980s operated "open loop" all of the time with no ability to react to changes in the A/F ratio, the addition of ethanol to the fuel tended to make the A/F ratio leaner, typically resulting in an immediate emission impact of reducing HC and CO emissions, but increasing NO_x emissions. However, some of these older open loop systems already operate at the lean edge of combustion on current commercial fuels so an increase in ethanol may cause them to begin to misfire resulting in HC and CO increases. Concerning long-term exhaust emissions, in the first E15 waiver, we concluded that for MY2000 and older light-duty motor vehicles, enleanment[176] resulting in higher exhaust temperatures could cause accelerated catalyst deterioration which would result in higher emissions long-term.[177]

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[176] Enleanment refers to increasing the amount of oxygen in the mixture of air and fuel that enters the engine for combustion. At any one air to fuel ratio, adding ethanol to the fuel adds additional oxygen to the mixture of air and fuel, tending to enlean the mixture.
[177] See 75 FR 68128 (November 4, 2010).

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Concerning materials compatibility, in the first E15 partial waiver we found that "a number of pre-Tier 2 motor vehicles, including Tier 0 motor vehicles (from the 1980s to 1995) and Tier 1 motor vehicles (from 1996 to 2001), may have been designed for only limited exposure to E10 and consequently may have the potential for increased material degradation with the use of E15 even though they are beyond their useful life requirements."[178] We argued further that degredation of fuel systems and emission controls from compatibility issues could result in higher emissions and emission control failure due to corrosion.

Due to the potential increases in vehicles emissions and issues with materials combability, we prohibited MY2000 and older light-duty motor vehicles from using E15.[179] We continue to believe that MY2000 and older light-duty motor vehicles were not designed to operate on E15 gasoline-ethanol blends and that E15 would not be sub sim to Tier 3 E10 certification fuel in those vehicles. As we found in the first E15 waiver decision, we believe that going from E10 to E15 in these vehicles could damage the emission controls and lead to increased emissions. Therefore, we conclude that E15 is not sub sim to Tier 3 E10 certification fuel in MY2000 and older light-duty motor vehicles.

b. Heavy-duty gasoline-fueled motor vehicles

As discussed in the first E15 waiver decision and the MMR, we have concerns for E15 use in heavy-duty gasoline-fueled motor vehicles that are similar to our concerns regarding E15 use MY2000 and older vehicles.[180] We believe that heavy-duty gasoline-fueled motor vehicles have historically lagged in adoption of adaptive fuel controls similar to MY2000 and older vehicles, and we have no new information to cause us to reconsider E15 use in these vehicles.

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[178] See 75 FR 68129 (November 4, 2010).
[179] See 76 FR 44448 (July 25, 2011).
[180] See 75 FR 68138 (November 4, 2010) and 76 FR 44409 (July 25, 2011).

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For all of the reasons discussed in Section II.C.8.a, we find that E15 is not sub sim to Tier 3 E10 certification fuel for heavy-duty gasoline fueled motor vehicles.

c. Nonroad vehicles, engines, and equipment (including motorcycles and marine engines)

Due to the potential effects on emissions and materials compatibility, we cannot determine that E15 is sub sim to Tier 3 E10 certification fuel when used in nonroad products, motorcycles, or marine engines. The sub sim definition in this action for E15 restricts the applicability of the sub sim definition from applying to nonroad vehicles, engines, and equipment ("nonroad products), highway and off-highway motorcycles (collectively called "motorcycles"), and marine engines. As discussed in Section II.C.9, we believe it appropriate to limit the applicability of a sub sim definition to those vehicles, engines, and equipment for which EPA is able to determine that the fuel or fuel additive is suitable for use.

In the first E15 partial waiver, we denied the E15 waiver request for all nonroad vehicles, engines, and equipment ("nonroad products"). As described in detail in the first E15 partial waiver, nonroad products typically have less complex engine designs, fuel systems, and controls than light-duty motor vehicles.[181] We also expressed concerns with the use of E15 in nonroad products, particularly with respect to long-term exhaust and evaporative emissions and materials compatibility.[182] The limited information available in the public domain at the time of the first E15 waiver decision, supported our decision to not grant the E15 waiver request for nonroad products.[183] Additionally, we used our engineering rationale and the data evaluated from the first E15 waiver decision to prohibit the use of E15 in nonroad products under CAA sec. 211(c) in the MMR.[184]

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[181] See 75 FR 68098 (November 4, 2010).
[182] See 75 FR 68134-68137 (November 4, 2010).
[183] See 75 FR 68137 (November 4, 2010).
[184] See 76 FR 44448 (July 25, 2011).

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We have similar concerns with E15 use in motorcycles and marine engines as these vehicles and engines have similar emission controls to other classes of nonroad products. These concerns were the basis for the denial of the E15 waiver request for all motorcycles and marine engines and extending the prohibition on E15 use in motorcycles and marine engines.

Since the E15 waivers and the MMR, little has changed with respect to ability of nonroad products to utilize E15. They continue to be certified on E0 and designed to run on gasoline-ethanol blends only up to E10. As highlighted in their public comments, the manufacturers of such engines continue to press for the need for greater outreach, education, and misfueling mitigation efforts beyond those already in place to protect their customers from E15, and the marine manufacturers have been actively testing isobutanol in concert with butanol coalition members to gain approval for its use in lieu of ethanol entirely due to their ongoing concerns with the use of ethanol at all in the marine environment. For these reasons, the sub sim determination in this action excludes from its scope these vehicles, engines, and equipment. This exclusion in conjunction with the prohibition on E15 use in these products promulgated under CAA sec. 211(c) in the MMR will continue to preclude the use of E15 in these products.

9. Limitations of "Substantially Similar" Interpretative Rulemaking

CAA sec. 211(f)(1)(B) prohibits fuel or fuel additive manufacturers from first introducing into commerce, or increasing the concentration in use of, any fuel or fuel additive for use by any person in motor vehicles which is not substantially similar to any fuel or fuel additive utilized in the certification of motor vehicles or engines under CAA sec. 206. As explained above, we have interpreted the "substantially similar" provision several times to allow the introduction into commerce of certain fuel blends. The language of CAA sec. 211(f)(1) does not address whether and how EPA can restrict its determination that a particular fuel is "substantially similar" to a

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certification fuel. Given the fact that there have now been multiple certification fuels since 1977, when CAA sec. 211(f)(1) was first enacted, we believe it is reasonable to interpret this provision as allowing EPA to make a sub sim determination with respect to the use of the new fuel within certain parameters, where the parameters are intended to avoid the kinds of problems that prompted Congress to enact the general prohibition against introduction into commerce of fuels that are neither substantially similar nor have a CAA sec. 211(f)(4) waiver. Additionally, as discussed in Sections II.C.6–8, despite being sub sim for certain light-duty vehicles, E15 is inappropriate for use in vehicles, engines, and equipment other than MY2001 and newer light-duty vehicles. Therefore, without the sub sim determination being limited to the parameters described in this section, there would be no basis for a conclusion that E15 is "substantially similar" to Tier 3 certification fuel.

Congress did not speak directly to the question of whether CAA sec. 211(f)(1) provides EPA with authority to make a sub sim determination that is subject to appropriate parameters, and we believe that a sub sim determination within reasonable parameters intended to ensure that the fuel at issue is in fact "substantially similar" to the relevant certification fuel is appropriate. Here, where EPA's sub sim determination for E15 is based on a determination that E15 is substantially similar to a certification fuel that is used to certify only a subset of the vehicle fleet, and the Agency has already determined that E15 cannot be used in certain vehicles and engines, it is necessary for EPA's sub sim determination to acknowledge certain parameters in order to ensure that the purpose of CAA sec. 211(f)(1) is maintained. As explained in Section II.A.1, the intent behind the enactment of CAA sec. 211(f)(1) was to prevent of the use of any new or recently introduced additive to unleaded gasoline that could impair the emission performance of

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vehicles[185]—as explained above, this is the same rationale underpinning the parameters within which we make this final sub sim determination. Congress recognized that the analysis required to control or prohibit the manufacture or introduction into commerce of a fuel or fuel additive under CAA sec. 211(c) may be a lengthy process.[186]

Given this context and the legislative history leading to the enactment of CAA sec. 211(f)(1), the parameters within which we make our sub sim determination today represent a reasonable exercise of our CAA sec. 211(f)(1) authority.

As discussed below, in this action we are establishing criteria on our E15 sub sim finding consistent with the rationale underpinning the enactment of CAA sec. 211(f)(1), and our prior interpretation of our authority to make a sub sim finding within certain parameters under CAA sec. 211(f)(1) or to place certain conditions on a CAA sec. 211(f)(4) waiver from sub sim. Given the direct impact on emissions and the indirect impact on emission through impacts on materials compatibility, and driveability, the parameters within which we are making our E15 sub sim finding address these three areas.

One implication of a sub sim interpretation that includes E15 under CAA sec. 211(f)(1) would be that a waiver under CAA sec. 211(f)(4) will no longer be necessary for E15 to be introduced into commerce. This would in effect remove the conditions of the E15 partial waivers imposed on fuel and fuel additive manufacturers, in the absence of any limitations on the sub sim interpretation. This would mean that the conditions in the E15 partial waivers designed to limit the introduction into commerce of E15 to only MY2001 and newer light-duty motor vehicles would not apply. We have already promulgated parallel restrictions in our regulations in the E15

[185] S. Rep. No. 95-127, 95th Cong., 1st Sess. 90 (1977).
[186] Id.

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MMR rulemaking at 40 CFR part 80, subpart N.[187] However, some conditions in the E15 partial waivers are not part of the MMR. One such condition is the requirement that fuel and fuel additive manufacturers have an EPA-approved misfueling mitigation plan (MMP) prior to introducing E15 into commerce.

While MMPs generally commit fuel and fuel additive manufacturers to adhere to regulatory requirements of the MMR, MMPs also commit these manufacturers to participate in public outreach on the appropriate use of E15 and allow for specific, additional misfueling mitigation measures that may apply in a manufacturer's specific situation. We believe that the continued existence of MMPs is important when finding that E15 is sub sim. The MMPs help prevent the use of E15 in MY2000 and older motor vehicles, nonroad vehicles, engines, and equipment (including motorcycles, and heavy-duty motor vehicles). Without the MMPs, there is an increased risk of misfueling which would directly impact the effects of the E15 on emissions, materials compatibility and drivability in MY2000 and older motor vehicles and nonroad, heavy-duty, and motorcycle vehicles and engines. We denied the E15 waiver request for MY2000 and older motor vehicles, nonroad vehicles, engines, and equipment (including motorcycles, and heavy-duty motor vehicles) due to our engineering assessment that these vehicles, engines, and equipment may experience emissions failures over these vehicles, engines, and equipments' full useful lives.

Also, as discussed above, in the MMR we concluded that under CAA sec. 211(c)(1)(A), the likely result would be increased VOC, CO, and NO_x emissions were these particular engines, vehicles, and equipment to use E15. The prohibitions and regulatory requirements were designed to help mitigate the misfueling of E15 in these vehicles. There are still millions of MY2000 and

[187] See 75 FR 68127-68138 (November 4, 2010).

older motor vehicles on the road (although they will over time make a smaller contribution to vehicle miles travelled) and hundreds of millions of pieces of nonroad equipment not designed for and prohibited from E15 use. The existing conditions on the E15 partial waivers under CAA sec. 211(f)(4) help ensure E15 fuel quality and mitigate the misfueling of vehicles, engines, and equipment and we believe it is appropriate to continue to limit our sub sim determination to a determination that E15 is sub sim to Tier 3 E10 certification fuel only under parameters that reflect the existing conditions on the E15 partial waivers.

We also sought comment on whether this proposed sub sim interpretation for E15 should be limited to the subset of the national vehicle and engine fleet to which the current E15 waivers apply (MY2001 and newer light-duty motor vehicles) or on which our assessment in Section II.C.5 of the NPRM is based (i.e., only to vehicles and engines certified using Tier 3 E10 certification fuel). After considering these comments, we find it appropriate to limit the applicability of our substantially similar determination in this case to certain classes of vehicles, engines, and equipment. The record has not changed with respect to the inability of older vehicles, nonroad equipment, motorcycles, or heavy-duty trucks to use E15, which formed the basis of our denial of the E15 waiver request for such vehicles, engines, and equipment. Furthermore, our assessment in Section II.C.5 of the NPRM found that the use of E15 in MY2000 or older light-duty gasoline motor vehicle, any heavy-duty gasoline motor vehicle or engine, any highway or off-highway motorcycle, or any gasoline-powered nonroad engines, vehicles or equipment is not substantially similar to Tier 3 E10 certification fuel. Such a limitation would be in recognition of the fact that, in contrast to the state of affairs at the time when CAA sec. 211(f)(1) was enacted, not all gasoline vehicles and equipment are certified on the same gasoline. All other vehicles, engines, and equipment prior to Tier 3 used certification

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fuel without ethanol, and some nonroad vehicles, engines, and equipment are still certified using E0. Another condition in the E15 partial waivers is that ethanol producers must manufacture denatured fuel ethanol that meets industry established quality standards if used to make E15. This requirement is not currently part of EPA's fuels regulations. For the new definition of sub sim for E15 in this action, we are updating criteria that establishes the physical and chemical parameters for the new definition of sub sim. We are making these changes largely to ensure that E15 that is introduced into commerce will continue to be sub sim to Tier 3 E10 certification fuel. We also do not believe that it would make sense to duplicate the criteria from the 2008 sub sim interpretation, especially since many of these updates are focused on accommodating a marketplace where E10 is predominant and E10 is now a certification fuel. For the new definition of sub sim for E15 in this action, we are updating the ASTM International specification references for volatility and driveability for the gasoline-ethanol blended fuels. We are also including a reference to the latest ASTM International denatured fuel ethanol (DFE) quality specification. Finally, we are updating the criteria for the use of additional fuel additives to be consistent with the Tier 3 gasoline sulfur requirements.

We received public comments suggesting that we update the reference to the ASTM standards for sub sim to the latest version of ASTM International standard D4814. One commenter noted that since E15 has a large effect on middle distillation (T50 in particular), EPA should reference the latest ASTM D4814 standard for gasoline as this standard helps ensure that gasoline-ethanol blends continue to meet the driveability index. The driveability index is a measure in the ASTM D4814 standard based primarily on the distillation characteristics of a fuel that helps ensures that spark-ignition engines operate correctly on gasoline. As discussed in Section II.C.6.d, fuels that cause issues with driveability can either directly increase emissions or

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result in consumers tampering with certified emissions configurations, which can result in increases in emissions. We agree with commenters that we should reference the latest version of ASTM D4814 as it relates to ensuring that the driveability index is met for gasoline-ethanol blends containing up to 15 volume percent. Therefore, we are specifying that only gasoline-ethanol blends that meet the applicable vapor pressure and distillation class requirements as specified in ASTM International Standard D4814–19 are considered physically and chemically substantially similar to Tier 3 E10 certification fuel.

Additionally, we believe it is appropriate that DFE used to produce E15 also needs to meet the latest ASTM International specifications for DFE, ASTM D4806-19. In the E15 partial waiver decisions, we imposed the condition that DFE used to make E15 under the waivers needed to meet a prior version of the ASTM ethanol specification. This condition was imposed in the E15 waivers under CAA sec. 211(f)(4) to help ensure that certain impurities in ethanol were limited to avoid issues with materials compatibility and help ensure quality of the gasoline-ethanol blended fuel when used in a vehicle or engine.[188] We believe it is still important to make sure that DFE used to make E15 meets ASTM D4806 specifications to ensure the quality of the E15. This will help ensure that materials compatibility and driveability are not adversely affected when E15 is used in 2001 and newer light-duty motor vehicles. Therefore, we are defining that only E15 made with DFE that meets ASTM D4806-19 is sub sim.

Finally, we are updating the criteria for additional fuel additives added to E15 that are introduced into commerce under the sub sim interpretation in this action to be consistent with fuel additive requirements for gasoline promulgated in the Tier 3 rule. In prior sub sim interpretations,[189] we limited additives under sub sim to a concentration of no more than 0.25

[188] See 75 FR 68127-68138 (November 4, 2010).
[189] See 46 FR 38586 (July 28, 1981), 56 FR 5356 (February 11, 1991), and 73 FR 22281 (April 25, 2008).

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percent by weight of the finished fuel and to contribute no more than 15 parts per million (ppm) sulfur by weight to the finished fuel. In the sub sim interpretation for E15 in this action, we limit additional fuel additive(s) to a concentration of no more than 1.0 volume percent of the finished fuel and the additional fuel additive(s) must contribute no more than 3 ppm sulfur by weight to the finished fuel. Since we are defining E15 as sub sim to Tier 3 certification fuel when used in MY2001 and newer light-duty vehicles, we need to consider whether additional additives added to E15 would adversely affect emission controls in MY2001 and newer light-duty vehicles. We cannot find that an additive that is five times the specified applicable standard for sulfur content is sub sim to Tier 3 certification fuel, especially in Tier 3 vehicles. The Tier 3 rule set sulfur standards that would expose light-duty motor vehicles on average to sulfur levels of 10 ppm. If we issued the prior parameters for fuel additives under the sub sim interpretation in this action as the prior sub sim interpretations, this would allow the finished fuel to have a sulfur level of 25 ppm, or almost equal to the Tier 2 average sulfur standard of 30 ppm. This could largely negate the purpose of setting more stringent sulfur specification for Tier 3 certification fuel and imposing the Tier 3 gasoline sulfur standard. Therefore, we find that it would be inappropriate to adopt the criteria used in prior sub sim interpretations. We find that it is more appropriate to adopt the Tier 3 provisions for gasoline additives in the regulations at 40 CFR 80.1613 as these were specifically designed to ensure that Tier 3 light-duty vehicles emissions controls are protected from large increases in sulfur from gasoline additives.

10. Implications of "Substantially Similar" Interpretation

The new interpretation of "substantially similar" that E15 is sub sim to Tier 3 E10 certification fuel discussed in this section would make it lawful for refiners and importers to make and introduce into commerce E15 without the use of the CAA sec. 211(f)(4) E15 partial

waivers.[190] This interpretation of "substantially similar" in conjunction with the interpretation of CAA sec. 211(h)(4) would extend the waiver from the CAA sec. 211(h)(1) upper RVP limit from 9.0 psi to 10.0 psi to fuels containing 9–15 percent ethanol during the high ozone season.

We intend for this definition to coexist with the existing definition of "substantially similar" (hereinafter "the 2008 definition"). This is appropriate because the 2008 definition is in comparison to indolene, and the new interpretation is in comparison to Tier 3 E10 certification fuel. However, because there are now two certification fuels to which we can draw comparisons, and two definitions of sub sim relating to each fuel, we think it is important to describe how fuel and fuel additive manufacturers will continue to introduce into commerce their fuels and fuel additives and maintain their registrations under 40 CFR part 79. We intend for the existing CAA sec. 211(f)(4) waivers promulgated relative to "indolene" to remain available as an option for introduction into commerce for fuels that are nonetheless sub sim to Tier 3 E10 certification fuel. We have taken this approach recognizing that removing existing waivers has the potential to create confusion about the validity of historical introduction into commerce under these waivers and the continued validity of existing registrations for fuels and fuel additives under 40 CFR part 79. For the E15, after the sub sim definition in this action goes into effect, we will presume that fuel and fuel additive manufacturers that have already registered E15 or ethanol for use in the production of E15 under 40 CFR part 79 will introduce E15 into commerce under our new definition of sub sim (as opposed to the 211(f)(4) waiver for E15), unless we are told otherwise through an update to the fuel or fuel additive manufacturer's registration under 40 CFR part 79. This will allow fuel and fuel additive manufacturers and downstream parties to introduce E15 with the 1-psi waiver and not run afoul of the 9.0 psi waiver condition under the CAA sec.

[190] We are not asking fuel and fuel additive manufacturers who have existing E15 registrations under the CAA sec. 211(f)(4) waiver to submit new registrations.

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211(f)(4) waivers without having to update their registrations under 40 CFR part 79.[191] We believe it would be unnecessarily burdensome to require the hundreds of registrants of E15 or ethanol for use in the production of E15 to update their registrations under 40 CFR part 79 to demonstrate that their E15 or ethanol for use in the production of E15 is sub sim in light of our finding that E15 is sub sim to E10 certification fuel in MY2001 and newer light-duty motor vehicles.

Because the CAA sec. 211(f)(4) waiver is a waiver from being "substantially similar," once E15 is found to be sub sim the waiver is no longer needed in order to introduce E15 into commerce. However, as discussed previously, we intend for the CAA sec. 211(f)(4) waiver to remain available for the introduction of E15 into commerce. Therefore, as previously explained in Section II.A.3, the deemed to comply provision in CAA sec. 211(h)(4)(B), which was promulgated at the inception of the RVP program when industry had just begun blending ethanol in gasoline and requires that the ethanol portion of the blend not exceed the highest permissible ethanol content under the CAA sec. 211(f)(4) waiver, would remain effective with respect to E15. The CAA sec. 211(f)(4) waiver for E15 remains available for the introduction into commerce of E15, and therefore the statutory "deemed to comply" criterion that "the ethanol portion of the blend does not exceed its waiver condition under subsection (f)(4) of this section" can still be satisfied both by parties that introduce E15 into commerce under the CAA sec. 211(f)(4) waiver or the CAA sec. 211(f)(1) sub sim finding because the ethanol content under either is identical. Our regulations at 40 CFR 80.28, as modified in this action, condition the "deemed to comply" provision on specific ethanol content between 9 and 15 percent by volume.

[191] Downstream parties who are not fuel or fuel additive manufacturers could also introduce E15 into commerce at 10.0 psi under the waiver conditions, even with today's sub sim determination, because those conditions only apply to fuel and fuel additive manufacturers, as discussed in Section II.D.3.

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For reasons discussed in Section II.D.1, we are not modifying this provision, other than by increasing the maximum allowable ethanol percent from 10 to 15 to reflect our revised interpretation of the CAA sec. 211(h)(4), and thus this regulatory provision would still allow downstream parties to be deemed in compliance and ease the demonstration burdens for gasoline-ethanol blends that can be introduced into commerce under a CAA sec. 211(f)(4) waiver or a substantially similar determination. We are updating our existing regulations at 40 CFR 80.28 to allow for ethanol content up to 15 volume percent to utilize the "deemed to comply" provision. We find this treatment appropriate because CAA sec. 211(h)(4) in its entirety should be read to apply to gasoline-ethanol blends containing at least 10 percent ethanol.

The 1-psi waiver would be available to all fuel manufacturers (i.e., refiners and importers) and downstream parties that produce, distribute and sell E15 due to the sub sim determination in this action. However, retailers that produce E15 via a blender pump would still not comply with EPA fuels regulations at 40 CFR parts 79 and 80 unless they make the E15 solely from DFE and certified gasoline (or CBOB). E15 produced at blender pumps could also continue to exceed even an increased RVP limit of 10.0 psi.[192] For further discussion of our fuels' regulations and blender pumps, see the RTC document, available in the docket for this action.

D. Regulatory Amendments

This action finalizes technical amendments that would effectuate our interpretation to allow the 1-psi waiver for E15 during the summer under CAA sec. 211(h)(4) and our

[192] We note that for E15 produced at blender pumps using E85 made with natural gas liquids, use of the deemed to comply provision to demonstrate compliance would not be available. This is because the RVP of natural gas liquids can be as high as 15.0 psi and even a small amount of natural gas liquids could cause the gasoline portion of the blend to not comply with the applicable RVP limitations established under CAA sec. 211(h), which is required under CAA sec. 211(h)(4)(A) to be deemed in compliance. Parties that make E15 at a blender pump using E85 made with previously certified gasoline can take advantage of the "deemed to comply" provision and associated affirmative defense at 40 CFR 80.28 if all applicable requirements in 80.28 are met.

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interpretation that E15 is sub sim under CAA sec. 211(f) for MY2001 and newer light-duty vehicles. We are therefore taking these actions under both CAA sec. 211(f) and 211(h).

1. Modification of Regulations

First, we are modifying and removing volatility controls associated with our prior interpretation of CAA sec. 211(h)(4). These controls, found in 40 CFR 80.27, place limitations on the RVP of gasoline-ethanol blends at specific concentrations. Given that the primary effect of our proposed interpretation of CAA sec. 211(h)(4) would expand the "special treatment for gasoline-ethanol blends" to fuel blends containing 9–15 percent ethanol, we are modifying both: (1) regulations extending the 1-psi waiver from gasoline containing 9–10 percent ethanol to gasoline containing 9–15 percent ethanol at 40 CFR 80.27; and (2) related defense provisions in 40 CFR 80.28.

In public comments, some commenters suggested that EPA remove the upper bound for ethanol content in 40 CFR 80.27 to be consistent with our new interpretation of CAA sec. 211(h)(4). In particular, they suggested that the regulation should provide the 1-psi waiver for any gasoline-ethanol blend containing at least 10 percent ethanol, or for any gasoline-ethanol blend containing at least 10 percent ethanol that has a waiver under 211(f)(4) or is "substantially similar." In promulgating these regulations, we have determined that CAA sec. 211(h)(4) provides the lower bound for ethanol content, and CAA sec. 211(f) provides the upper bound. We do not find that it would be appropriate to codify in our regulations no upper bound, as the limitations on introduction into commerce under CAA sec. 211(f) are an important mechanism to protect the emissions controls of motor vehicles and nonroad products. Additionally, it would be inappropriate to allow any gasoline-ethanol blend that contains ten volume percent ethanol the 1-psi waiver without consideration in a rulemaking process.

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Second, we are removing and modifying provisions in the MMR that were imposed to effectuate the prior 1-psi waiver interpretation under CAA sec. 211(h)(4). Subsequent to the grant of the CAA sec. 211(f)(4) partial waivers for E15, we adopted regulations under CAA sec. 211(c) to ensure that E15 would not be used in certain vehicles and engines for which the waivers did not apply and to effectuate our interpretation of 211(h)(4) at that time. To do so, in addition to the conditions on the waivers that applied to fuel manufacturers, we promulgated regulations to ensure that those same conditions were enforceable on downstream parties. No changes were made to the RVP regulations at 40 CFR 80.27 as a direct result of our interpretation under CAA sec. 211(h)(4) that the 1-psi waiver did not extend to gasoline-ethanol blends with an ethanol concentration greater than 10 percent. Additional regulations on parties that distribute E15 were put in place at 40 CFR 80.1504(f) and (g) (placing prohibitions on the commingling of E10 and E15), and 40 CFR 80.1503 (placing PTD requirements on E15). These regulations were put in place in order to ensure that the RVP of E15 did not exceed 9.0 psi in accordance with our interpretation of CAA sec. 211(h)(4) at the time. However, since our new interpretation of CAA sec. 211(h)(4) increases the RVP allowance to 10.0 psi, these provisions are no longer necessary. Additionally, because the RVP of E15 will be approximately the same as E10 if produced from the same blendstock, we do not anticipate adverse emissions impacts from providing E15 the 1-psi waiver. Given that we are interpreting CAA sec. 211(h)(4) to extend to gasoline-ethanol blends of up to 15 percent ethanol, the prohibition on the commingling of E15 and E10 is no longer necessary.

Finally, we are removing the PTD requirements related to the 1-psi waiver at 40 CFR 80.1503. In 40 CFR part 80, subpart N, we included PTD language designed to help ensure that E15 that did not receive the 1-psi waiver would be segregated from E10 that did receive the 1-psi

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waiver. Since we are allowing the 1-psi waiver for E15, we no longer need these PTD requirements. However, parties that produce and distribute gasoline-ethanol blended fuels would still be required to identify ethanol concentrations on PTDs as specified in 40 CFR 80.27 and 40 CFR 80.1503.

2. Status of Misfueling Mitigation Rule Regulations

All other E15 misfueling mitigation provisions in 40 CFR part 80, subpart N, remain unchanged. In the MMR, we promulgated regulations under CAA sec. 211(c)(1), which prohibit the use of E15 in MY2000 and older motor vehicles, nonroad vehicles, engines, and equipment (including motorcycles, and heavy-duty motor vehicles). CAA sec. 211(c)(1) gives EPA authority to "control or prohibit the manufacture, introduction into commerce, offering for sale, or sale" of any fuel or fuel additive (A) whose emission products, in the judgment of the Administrator, cause or contribute to air pollution "which may be reasonably anticipated to endanger public health or welfare" or (B) whose emission products "will impair to a significant degree the performance of any emission control device or system which is in general use, or which the Administrator finds has been developed to a point where in a reasonable time it would be in general use" were the fuel control or prohibition adopted. We promulgated the MMR based on our assessment that E15 would significantly impair the emission control systems used in MY2000 and older light-duty motor vehicles, heavy-duty gasoline engines and vehicles, highway and off-highway motorcycles, and all nonroad products supporting our action under CAA sec. 211(c)(1)(B). This led to our conclusion that under CAA sec. 211(c)(1)(A), E15 use in these particular vehicles, engines, and non-road products would likely result in increased VOC, CO, and NO_x emissions.[193] The regulatory changes to 40 CFR part 80, subparts B and N in this

[193] 76 FR 44422 (July 25, 2011).

action are solely related to our proposed interpretation to allow the 1-psi waiver for E15 under CAA sec. 211(h)(4) and CAA sec. 211(f). This action does not change the basis of our CAA sec. 211(c)(1)(A) and (B) finding in the MMR that prohibits E15 from use in MY2000 and older light-duty motor vehicles, heavy-duty gasoline engines and vehicles, highway and off-highway motorcycles, and all nonroad products. This action also does not modify the misfueling mitigation measures promulgated in the MMR.

3. Waiver Applicability

As discussed in the proposal, we interpret CAA sec. 211(f) as applying the waiver conditions to fuel and fuel additive manufacturers as defined in 40 CFR 79.2. Therefore, the regulatory amendments promulgated in this rulemaking apply to downstream parties, such as oxygenate blenders, who are not fuel or fuel additive manufacturers.[194]Accordingly, so long as downstream parties, such as oxygenate blenders, are only utilizing CBOB and denatured fuel ethanol to create E15, these parties can apply the 1-psi waiver and thus can blend and sell E15 at 10.0 psi.

We received comment on this mechanism for providing E15 the 1-psi waiver, and respond to those comments in the RTC document, available in the docket for this action. This interpretation of the applicability of the CAA sec. 211(f)(4) waiver conditions, in conjunction with our new interpretation of CAA sec. 211(h)(4), is an independent basis from the CAA sec. 211(f)(1) sub sim interpretation for the regulatory amendments finalized in this rulemaking.

We also find that, should fuel and fuel and additive manufacturers choose to introduce E15 into commerce under the CAA sec. 211(f)(4) waiver, these parties would continue to be

[194] Those fuel and fuel additive manufacturers would continue to be subject to the CAA sec. 211(f)(4) E15 partial waivers conditions, including the 9.0 psi RVP limitation. Therefore, in the absence of a sub sim interpretative rule finding that E15 is sub sim, we intend for the CAA sec. 211(f)(4) waiver to remain in effect.

subject to the 9.0 psi RVP limit in the waiver conditions for E15. Downstream parties that only add oxygenate in an allowable amount (i.e., as allowed under the CAA sec. 211(f)(4) waivers) are not fuel and fuel additive manufacturers, and thus would not need to meet the 9.0 psi waiver condition.

E. Expected Impact of This Rule on E15 Use

We do not believe that providing E15 with the 1-psi waiver will substantially change the current trend in E15 use. E15 can currently be sold legally for use in MY2001 and newer light-duty motor vehicles in the United States under the 211(f)(4) waivers. It has been 9 years since EPA first granted the E15 211(f)(4) partial waivers; retailers currently offer E15 at roughly just 1 percent of retail stations as discussed in Section II.A.2. We expect that this slow adoption of E15 would continue even if we did not provide E15 the 1-psi waiver. However, we also do not expect this action to change the rate of growth appreciably. We believe that providing E15 with the 1-psi waiver will not result in a significant expansion of E15 offered at retail stations. This is due to the fact there are several hurdles, independent of EPA's fuels regulations, that inhibit the expansion of E15 into retail markets.

The chief hurdle to the introduction of E15 at additional retail stations is the requirement under 40 CFR 280.32 that retailers must demonstrate that underground storage tank (UST) systems are compatible with fuels stored at retail stations. Several commenters from the gasoline marketing and retail industry highlighted concerns over demonstrating compatibility of E15 with UST systems that have slowed the adoption of E15. Demonstrating compatibility can be especially difficult for some retailers as the full useful life of some UST system components can be up to 30 years and documentation of all of the various components often no longer exists, particularly when retail stations often change ownership several times during this time period.

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Commenters also noted that a majority of retailers are small businesses that would need to make substantial investments to ensure the compatibility of UST systems and fuel dispensers with E15, which can cost up to hundreds of thousands of dollars per station depending on station configuration and what part of the UST system needs upgrading.[195] As commenters noted, the best opportunity to upgrade retail infrastructure is when it is time to turn over the UST system or fuel dispensers. As commenters noted, since less than 3 percent of retail stations turn over UST systems per year, this limits the opportunities for new E15 offerings.

Furthermore, not all retail stations that turn over their UST systems are going to offer E15. Much of the introduction of E15 to date has been in the Midwestern states, where blending incentives and investments in retail infrastructure have been present.[196] While some retailers in states outside the Midwest have begun offering E15, it has mainly been limited to retail stations with blender pumps. Therefore, we would expect far fewer than 3 percent of retail stations nationwide to turn over to E15 compatible UST systems annually. Historically, as there are less than 2,000 stations offering E15 nationwide and E15 has been a legal fuel for nine years, this translates to about a 0.1 percent increase in the number of retail stations offering E15 each year. We expect a comparable trend to continue.

Another hurdle to E15 market penetration highlighted by some commenters is a lack of consumer demand or consumer acceptance. These commenters noted that retailers will not limit their customer base and therefore will continue to make E10 available for vehicles, engines, and

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[195] See "Analysis of the Potential Use of Biofuels toward the Renewable Fuel Standard in 2014," available at *https://ethanolrfa.org/wp-content/uploads/2015/09/Informa_Potential_Use_of_Biofuels_toward_RFS_20141.pdf.*

[196] For example, the State of Iowa provides biofuels tax credits for E15, see *https://www.agmrc.org/renewable-energy/renewable-energy-climate-change-report/renewable-energy-climate-change-report/may-2017-report/overview-of-iowa-biofuel-tax-credits-and-ethanol-blends-sales-e10-e15-e20-and-e85.* Additionally, USDA provided grants under its Biofuel Infrastructure Partnership program; see *https://www.fsa.usda.gov/programs-and-services/energy-programs/bip/index.*

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equipment that are not allowed to use E15.[197] For the foreseeable future, millions of MY2000 and older light-duty vehicles and hundreds of millions of nonroad vehicles, engines, and equipment will continue to be in use, and retailers will need to provide consumers with suitable fuels for these products. Given this continued demand for E10 and the practicality of offering fuels that are only usable in certain segments of the national fleet, many retailers have decided to offer E10 which is usable in the entire fleet rather than offering both E10 and E15. Additionally, as several commenters noted, consumers are not requesting that stations offer E15 instead of E10 and some consumers have questions over the use of E15 in their vehicles and engines (even when allowed to use E15 under the CAA). Some commenters noted that it has only been in the last few years (not 2001) that most automakers have begun to state in owner's manuals that E15 use is acceptable, and several large auto manufacturers still include language in their owner's manuals warning against E15 use; almost all owner's manuals for nonroad products warn against E15 use.[198] While we have evaluated whether E15 is sub sim to Tier 3 E10 certification fuel, we do not have authority under the CAA to impact what manufacturers put in their owner's manuals or how they implement their general warranties. The disparity between what vehicles and engines we have approved for E15 use under our 211(f) authority and which fuels manufacturers recommended using in owner's manuals can lead to confusion and lack of consumer acceptance of E15. This lack of consumer acceptance and demand has resulted in E15 stations being primarily located in the Midwestern states. As long as there is some uncertainty over whether vehicles, engines, and equipment can and should use E15, these commenters argue, retailers will be hesitant to offer E15. We believe that these comments, primarily submitted by marketers and

[197] In certain situations, such as limited USTs or pump infrastructure, retailers are unable to make both E10 and E15 available. In these situations, commenters suggested that retailers would chose to make E10 available rather than E15.

[198] See "Head Like a Hole," available at *http://www.fuelsinstitute.org/Media/The-Commute/Head-Like-a-Hole*.

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retailers of gasoline, are accurate and we believe these hurdles all factor into our projection that this action is unlikely to appreciably impact E15 market penetration.

E15 also faces an economic challenge to market growth, even with the 1-psi RVP waiver. Since the fuel distribution system will for the foreseeable future only be capable of distributing BOBs designed for E10, refiners will be unable to take advantage of the increased octane value offered by 5 percent more ethanol in the gasoline they produce. It is this octane value of ethanol that in recent years has been a key factor in enabling ethanol to compete favorably with gasoline. Rarely has ethanol been cheaper than gasoline on an energy equivalent basis.[199] As a consequence, there is seldom a meaningful economic driver to produce and distribute E15 compared to E10, especially given the service station upgrade costs.

A final factor that presents a hurdle to E15 expansion is that E15 made at blender pumps often is done so inconsistently with EPA's regulatory requirements. As discussed in the proposal, E15 made at blender pumps is often made with certified E10 (or CBOB) and E85 (made with denatured fuel ethanol and uncertified hydrocarbon blendstocks, i.e., natural gas liquids).[200] While data is limited, we believe that approximately 50 percent of stations offering E15 make E15 in this manner. The potential to violate EPA's regulatory requirements has resulted in many parties choosing not to offer E15 until EPA provides a legal pathway to make E15 at blender pumps. As mentioned in the proposal, we had previously proposed requirements on E85 used to make E15 at blender pumps that would both assure that the E15 met EPA's fuel quality standards and provide a cost-effective compliance mechanism for the retailers operating blender pumps to demonstrate compliance.[201] Since we have not finalized those requirements or addressed the

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[199] Ethanol price data from USDA is available at *https://www.ers.usda.gov/data-products/us-bioenergy-statistics/us-bioenergy-statistics/#Prices*.
[200] See 84 FR 10595 (March 21, 2019).
[201] See 81 FR 80862-80864 (November 16, 2016).

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technical challenges raised in public comments, we expect regulatory uncertainty regarding E15 made at blender pumps to further inhibit E15 expansion.

As another example of these hurdles, E15 has not expanded significantly into RFG areas, where the RVP of E15 has not been limited by the 1-psi waiver. RFG represents over 30 percent of the gasoline in the United States and refiners of RFG must comply with the summertime RFG VOC performance standards, which effectively require refiners to account for the increase in RVP that results from adding ethanol into RFG. The result of this is that oxygenate blenders have been able to produce E15 using the same RBOB as E10 in the summer since EPA granted the first E15 waiver 9 years ago. However, according to the E15 compliance and RFG surveys, only five RFG areas (Chicago, Milwaukee, St. Louis, Washington D.C., and Dallas) out of 26 RFG areas have had any E15 marketed in those areas and even in those areas, E15 has only been offered in a limited number of stations.[202] We believe this lack of expansion of E15 in RFG areas is primarily a result of the various hurdles discussed in this section, and we expect similar results in conventional areas as a response to this action to allow the 1-psi waiver for E15.

Because this action does not change the rate of UST system and fuel dispenser turnover, increase consumer demand or acceptance for E15, ensure greater economic value for E15, or resolve the regulatory issues associated with producing E15 at blender pumps; we do not believe providing E15 the 1-psi waiver will result in a substantial expansion of E15 being offered at new retail locations.

[202] According to the RFG and E15 surveys, only 78 retail stations in RFG areas are registered to sell E15. This is out of 22,287 retail stations in all RFG areas or 0.35 percent of RFG stations. This is substantially lower than the national rate of around 1.13 percent of retail stations nationally. This difference in number, despite E15 not being limited by the 1-psi waiver in RFG areas in the summer, is likely a result of the factors discussed in this section. RFG areas tend to be in major metropolitan areas which may have higher costs to install retail infrastructure compatible with E15. This further illustrates how some of the hurdles to E15 introduction will not be addressed by providing E15 with the 1-psi waiver.

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Several commenters suggested that this action would result in significant impacts on air quality or have a significant economic impact. These commenters typically assume that every vehicle, engine, and piece of equipment in country will begin using E15 and that if the entire national fleet moved from E10 to E15 use substantial increases in regulated pollutants, widespread degradation of air quality, or necessitate billions of dollars of investments on the part of small businesses to offer E15 as a result. As previously mentioned, we do not expect that allowing E15 to receive the 1-psi waiver would result in widespread E15 use. This action does not require that any party make, distribute, sell, or use E15. As such, this action also does not address the hurdles to entry of E15. Based on the experience of E15 in areas that can already use E15 year-round (i.e., RFG areas), it is unlikely that providing the 1-psi waiver to E15 would lead to a substantial increase in E15 use as a result of this action.

F. E15 Criteria Pollutant and Air Toxics Emission Impacts

As discussed above, we expect the emissions of E15 at 9 psi RVP to be substantially similar to those of E10 Tier 3 certification fuel when used in Tier 3 light-duty vehicles. This section describes the expected change in in-use emissions resulting from this action, assessing the evaporative and exhaust emissions of E15 with the 1-psi RVP waiver relative to the E10 with the 1-psi RVP waiver already available in the marketplace nationwide. While we attempt to estimate the emissions effects of E15 relative to E10 on a per-vehicle basis, we do not attempt to quantify what these changes mean for air quality in any specific area or the nation as a whole. We do not believe that as a result of this rulemaking a significant number of additional retail stations will offer E15, due to several hurdles described in Section II.E. As such, it would be difficult to quantify any effects (positive or negative) with confidence associated with providing E15 the 1-psi waiver. Such effects, if quantified, are unlikely to affect ambient air quality beyond

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the margin of error in air quality modeling. In Section II.C.6 we present estimated changes in emissions on a per-vehicle basis for illustrative purposes.

Evaporative emissions from vehicles comprise approximately 60 percent of the VOC emissions during summertime conditions from the current vehicle fleet based on results produced by MOVES2014b, and such VOC emissions contribute to ambient levels of ozone, PM, and air toxics, all of which adversely affect public health and welfare. Today's vehicles are equipped with charcoal cannisters to capture vapors generated during refueling as well as daily diurnal temperature fluctuations. This stored vapor is then drawn into the engine and combusted during vehicle operation.

Currently and historically, vehicle manufacturers have been required to certify their vehicles on test gasoline with a volatility of 9.0 psi RVP under severe operating conditions similar to what might be expected on days with high ozone concentration. The evaporative emission standards have been made more stringent over time, such that the Tier 3 standards require essentially zero vapor loss during normal operation on 9.0-psi fuel. Increasing fuel RVP from 9.0 psi to 10.0 psi increases fuel vapor generation significantly under summertime conditions, which can overwhelm a vehicle's evaporative control system and push it out of compliance. Consequently, controlling the volatility of gasoline during the summer is important in order to control the evaporative VOC emissions from vehicles and engines in-use.

This action extends the 1-psi RVP waiver to E15, allowing its in-use volatility to go from 9.0 psi to 10.0 psi RVP. Viewing this change in isolation, one might expect a significant increase in in-use evaporative emissions, and some public comments raised this concern. To accurately assess emission impacts in this case, however, we need to examine current real-world circumstances. Namely, we expect any additional E15 introduced into the market to displace E10

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that is being sold and that already carries the 1-psi waiver in CG areas (E10 has nearly 100 percent market share for gasoline sold in the U.S.). Thus, any increase in in-use emissions that might have resulted from the 1-psi waiver applying to E15 is already occurring with E10. Rather, displacement of E10 with E15 is expected to lower the RVP of in-use gasoline by as much as 0.1 psi when made from the same RBOB or CBOB.[203] We believe this will continue to be the case until E15 use becomes widespread.[204]

Use of E15 will also have other criteria pollutant emission impacts beyond those related to volatility as described above. Assuming E15 is made from the same RBOB or CBOB as E10, we expect the additional 5 volume percent ethanol to further dilute hydrocarbon fuel components such as aromatics, producing changes in several exhaust emissions such as NO_x, NMOG, and benzene.[205, 206] Ethanol also causes changes in the volatility profile of the blended fuel, typically lowering the mid-point distillation temperature (T50) significantly, and the 90 percent temperature (T90) slightly.[207] Table II.F-1 shows predicted fuel property and exhaust emission changes for Tier 2 vehicles using both E10 certification gasoline and a typical market E10 as baselines for comparison. Results using the EPAct model developed from the EPAct/V2/E-89 study described in Section II.C.6.a suggest E15 are expected to produce slightly lower CO and

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[203] "Determination of the Potential Property Ranges of Mid-Level Ethanol Blends." American Petroleum Institute, Washington, DC. April 2010.

[204] We believe it would be unlikely for refiners to produce an E15 CBOB for such a small difference in RVP (i.e., 0.1 psi RVP). However, refiners may want to create a CBOB with a slightly lower octane level to account for the increased octane from the additional ethanol in E15 versus E10. We believe this would only occur if E15 comprised a large part of a conventional gasoline area's market; something that took decades to happen with E10.

[205] For the effects of sulfur on emissions see Table ES-3 in "The Effects of Ultra-Low Sulfur Gasoline on Emissions from Tier 2 Vehicles in the In-Use Fleet." US EPA Office of Transportation and Air Quality, Ann Arbor MI. EPA-420-R-14-002, March 2014.

[206] For the effects of ethanol and aromatics on emissions see Tables ES-1 through ES-4 in "Assessing the Effect of Five Gasoline Properties on Exhaust Emissions from Light-Duty Vehicles Certified to Tier 2 Standards: Analysis of Data from EPAct Phase 3 (EPAct/V2/E-89): Final Report." US EPA Office of Transportation and Air Quality, Ann Arbor MI. EPA-420-R-13-002, March 2013.

[207] "Determination of the Potential Property Ranges of Mid-Level Ethanol Blends." American Petroleum Institute, Washington, DC. April 2010.

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benzene, and slightly higher NO_x and PM compared to their E10 blending base. Changes in total NMOG (or VOC) vary in direction depending on the T50 of the blending base.

Table II.F-1: Example Exhaust Emission Impacts of E15 Based on EPAct Model

	Fuel properties used in analysis					E15 emissions impact relative to shaded baseline row above				
	Eth. vol%	Arom. vol%	RVP psi	T50 °F	T90 °F	CO	NMOG	NO_x	PM	Benzene[b]
Baseline: E10 certification fuel at 9 psi	10.0	23.0	9.0	200	325	Baseline for comparison				
E15 at 9 psi (splash blend with baseline)	15.0	21.9	9.0	163	321	-2.4%	-5.5%	1.9%	2.8%	-10.9%
E15 at 10 psi (splash blend with baseline)	15.0	21.9	10.0	163	321	-1.3%	-8.0%	1.9%	2.8%	-10.9%
Baseline: E10 market fuel at 10 psi	10.0	23.0	10.0	180	320	Baseline for comparison				
E15 at 10 psi (splash blend with baseline)	15.0	21.9	10.0	160	316	-1.9%	2.2%	2.5%	4.1%	-8.2%
E15 at 10 psi (match blend per MOVES Fuel Wizard)[a]	15.0	21.7	10.0	167	318	-2.6%	1.4%	2.7%	4.1%	-7.7%

[a] The MOVES Fuel Wizard attempts to estimate how properties would change in a widespread blending scenario.
[b] The benzene effect shown is for a cold-start driving mode representing the first few minutes of vehicle operation. Other emission effects shown represent a typical mix of cold-start and warmed-up driving.

If E15 use becomes widespread in the longer term, refiners may adjust the base blendstock to accommodate the additional ethanol. During the rapid expansion of E10 blending between 2007-2012, aromatics levels were observed to decline by a few volume percent while pump octane levels stayed constant, and octane match-blending is understood to have been a contributing factor.[208, 209] For other fuel properties, such as sulfur and benzene content, refiner control could be relaxed slightly for E15 blendstocks with the finished market E15 still meeting with the regulatory limits. E15 made with such match blends would then have slightly different

[208] See Figure 3-4 of the Regulatory Impact Analysis for "Control of Air Pollution from Motor Vehicles: Tier 3 Motor Vehicle Emission and Fuel Standards." EPA-420-R-14-005, February 2014.
[209] See Figure 65 of "Fuel Trends Report: Gasoline 2006-2016." EPA-420-R-17-005. October 2017.

emission impacts compared to the splash blends made with E10 blendstocks expected for the near term as shown in Table II.F-1.

Several commenters highlighted the alleged benefits or disbenefits of E15 use on regulated emissions and air quality. These commenters often assumed that entire areas or the entire national fleet of vehicles and engines would switch from using E10 to E15 as a result of this action. While it is possible that measurable emissions and air quality effects could occur due to the small estimated per vehicle changes in exhaust and evaporative emission if the entire vehicle and engine fleet of an area or the nation went from using E10 to E15, such an analysis is inappropriate for this rulemaking. As discussed in Section II.E, we do not believe that E15 use will expand more quickly than it currently is expanding as a result of this rulemaking. E15 has been a legal fuel for use in the marketplace since 2010, and as discussed in Section II.A.2, it is still sold in limited quantities at only about one percent of retail stations nationwide. This rulemaking does not address the other hurdles to E15 entering the marketplace and does not provide additional incentives to parties that wish to make, distribute, or sell E15 to accelerate E15 use. As discussed in Section II.A.2, this situation is analogous to the situation when E10 was granted the 1-psi waiver in 1990, and the market saw little response in ethanol use until the mid-2000s when MTBE was banned, the price of crude oil rose making ethanol cost competitive with gasoline, and the RFS was created by the Energy Policy Act of 2005. As such, we believe that it would be inappropriate to attribute any meaningful environmental impacts (positive or negative) to increased E15 use as a result of this rulemaking.

G. E15 Economic Impacts

Due to the barriers to market entry discussed in Section II.E, we anticipate that the economic impacts of providing E15 with the 1-psi waiver will be small. This section briefly

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describes the potential benefits and costs of providing E15 with the 1-psi waiver. To the extent there would be small impacts from this rulemaking on the volume of ethanol use, the appropriate place to reflect those impacts would be in rulemaking actions associated with implementation of the renewable fuels program, where EPA considers the impacts of changes in biofuel volumes.

1. Potential Benefits of This Action

We anticipate that providing the flexibility to use E15 at 10.0 psi RVP in the summer could help incentivize some retailers to introduce E15 into the marketplace, but that such incentives may be outweighed by the other hurdles to widespread E15 use. In situations where denatured fuel ethanol might be cheaper than gasoline, such as in the Midwest where distribution costs are low, parties may elect to make E15 more widely available, which may result in a modest decrease in fuel prices at the pump. However, even then this may not be sufficient to overcome the significant investment needed to upgrade an existing retail station to be compatible with E15 if consumer demand for E15 remains low. Any additional ethanol that is blended as a result of this action could help to offset a portion of the projected decline in U.S. ethanol use due to projected declining gasoline consumption. This in turn could provide energy security benefits.

2. Costs of This Action

Finalizing the 1-psi waiver for E15 in the summer may help open new market opportunities for E15. However, fuel manufacturers and distributors of E15 would not be compelled to make or offer E15 and could choose to offer E15 as dictated by market demands and individual business decisions.

Overall, we anticipate very little change in costs regarding the proposed regulatory provisions to allow E15 to receive the 1-psi waiver in the summer. This action places no new regulatory burdens on any party in the gasoline or denatured fuel ethanol distribution system and

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modifies, but does not remove, PTD requirements for E15. Hence, we expect that these proposed provisions would not substantially alter the cost of compliance for parties that produce and distribute E15.

III. RIN Market Reforms

A. Background

Under CAA sec. 211(o), EPA is required to set renewable fuel percentage standards every year.[210] To comply, obligated parties[211] can purchase and blend the requisite volumes of renewable fuels into the petroleum-derived transportation fuels they produce or import. However, to allow the market to function more efficiently, to avoid market disruption, and to assist obligated parties in meeting their individual RVOs, Congress directed EPA to establish, through a transparent public rulemaking process, a system for the generation and use of renewable fuel program credits.[212] The credits created under this program are known as RINs. RINs are credits that are generated upon production of qualifying renewable fuel and ultimately used by obligated parties to demonstrate compliance with their RVOs.[213] Renewable fuel producers and importers generate and assign RINs to the renewable fuel they produce or import. These RINs are then transferred with the renewable fuel to the downstream parties that blend the renewable fuel into transportation fuel. In lieu of blending the renewable fuel themselves to demonstrate compliance, obligated parties have the option to instead purchase RINs from other parties that blend renewable fuel.

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[210] See, e.g., 2019 RVO final rule (83 FR 63704, December 11, 2018).
[211] Obligated parties are refiners and importers of gasoline and diesel fuel. See 40 CFR 80.1406.
[212] See CAA sec. 211(o)(5).
[213] D3 and D7 RINs are used for the cellulosic biofuel RVO, D4 RINs are used for the biomass-based diesel RVO, D5 RINs are used for the advanced biofuel RVO, and D6 RINs are used for conventional renewable fuel RVO.

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RIN prices are a function of multiple factors, including but not limited to changes in petroleum prices, agricultural feedstock (e.g., corn, soy) prices, and expectations of future market shifts and standards. RIN prices may also fluctuate as the market responds to RFS standards and expectations of future EPA policy decisions. While there are many different factors that affect RIN prices, a review of the historical RIN price data demonstrates that RIN prices generally follow expected market principles.[214]

Obligated parties that purchased RINs on the market for compliance in 2013 saw their D6 RIN prices substantially increase from the year prior.[215] Though this increase in D6 RIN prices was the result of changes in the market, the most significant of which was reaching the E10 blendwall,[216] increasing D6 RIN prices did raise concerns regarding whether market manipulation played some role in elevated prices. In comments to proposed EPA rulemakings (such as the 2018 and 2019 RVO proposals) and via other communication with EPA staff, some stakeholders described conditions that they believed make the RIN market vulnerable to anti-competitive behavior. For example, commenters described a thin market volume, opaque price signals, and inelastic demand and supply curves and provided specific examples of behavior they believed to be manipulative, such as phantom RIN offers that suddenly vanish and reappear at higher prices after a party attempts to buy them at the purported asking price.[217] These stakeholders also believed that, as a result of market conditions and price volatility, anti-competitive behavior is taking place. For example, commenters argued that a small number of

[214] For a thorough review of historical RIN price data, see Section III.B of the NPRM preamble (84 FR 10605-10607, March 21, 2019) and the memorandum, "RIN Market Assessment," available in the docket for this action. Our assessment of RIN price behavior and the rationale behind it remains the same. See also the RTC document for a response to comment related to RIN price behavior.
[215] See the memorandum, "RIN Market Assessment," available in the docket for this action.
[216] The E10 blendwall occurred when the implied conventional biofuel volume of ethanol established by the RFS program exceeded the volume of ethanol that could be blended into gasoline at a rate of up to 10 percent.
[217] See, e.g., comments from Monroe Energy (Docket Item No. EPA-HQ-OAR-2018-0167-0622).

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sophisticated market participants control a large number of "surplus" RINs that they hoard to drive up prices, at which point they can sell the RINs to realize a higher profit.

We take these claims of market manipulation seriously and took formal action prior to the notice of proposed rulemaking (NPRM) to investigate claims of manipulation. In March 2016, EPA entered into a Memorandum of Understanding (MOU) with the Commodity Futures Trading Commission (CFTC).[218] Under the MOU, we provided CFTC with certain RIN data for analysis in order to facilitate an EPA investigation. We still have not seen data-based evidence of RIN market manipulation, but the potential for such behavior remains a concern.

In the 2018 and 2019 RVO NPRMs, we broadly sought input on potential regulatory changes related to RIN trading as well as on ways to increase program transparency.[219] We received many comments to the 2019 RVO NPRM in support of publicly posting more RFS program data. In response, in September 2018, we began publishing weekly aggregated RIN prices and transaction volumes. We also received a wide variety of comments regarding the other ideas we put forward, including requiring public disclosure if a party holds a certain percentage of the RIN market and prohibiting non-obligated parties from purchasing separated RINs. Some comments expressed support for these ideas and offered other ideas. Other comments opposed both the specific reform proposals and the general concept of interfering with the open RIN market in any way.

On October 11, 2018, the President issued a White House statement directing EPA to initiate a rulemaking to address RIN price manipulation claims and increase transparency in the

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[218] See "Memorandum of Understanding Between the Environmental Protection Agency and the Commodity Futures Trading Commission on the Sharing of Information Available to EPA Related to the Functioning of Renewable Fuel and Related Markets" (2016), available at *https://www.epa.gov/sites/production/files/2016-03/documents/epa-cftc-mou-2016-03-16.pdf.*

[219] See 82 FR 34206 (July 21, 2017) and 83 FR 32024 (July 10, 2018).

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RIN market. Specifically, the memorandum directed EPA to consider potential reforms to the RIN regulations, including but not limited to the following proposals:

- Prohibiting entities other than obligated parties from purchasing separated RINs.
- Requiring public disclosure when RIN holdings held by an individual actor exceed specified limits.
- Limiting the length of time a non-obligated party can hold RINs.
- Requiring the retirement of RINs for the purpose of compliance be made in real time.

Pursuant to this directive, we proposed regulatory changes reflecting all four reforms identified in the President's Directive and requested comments on both the positive and negative consequences of each reform. For each reform proposal, we evaluated comments already submitted to EPA describing its advantages and disadvantages. We also evaluated how a reform could be designed and implemented, whether a reform could be gamed or have unintended consequences, and what potential burden and cost it could place on regulated parties and on EPA. In the same action, we also proposed a fifth reform of enhancing EPA's market monitoring capabilities by imposing new recordkeeping and reporting requirements to collect more comprehensive data on RIN market transactions and participants and by hiring a third party with market monitoring expertise to conduct market analysis.

When we originally contemplated the reforms, we understood that restrictions could affect the flexibility and liquidity that the RIN system and regulations were designed to maximize. For example, numerous comments received on the 2019 RVO NPRM stated that changes to the RIN market structure could reduce liquidity, increase volatility, and make the RIN market function less efficiently, increasing costs to obligated parties and consumers. Interested

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stakeholders also suggested that some reforms could affect the ability of small, less recognized, or new renewable fuel producers and blenders to enter the market. Finally, we understood that some reforms could inadvertently affect otherwise legitimate market behavior. For example, parties that purchase RINs on the expectation that RIN prices will increase may provide an important price signal and increase market liquidity with their actions. Therefore, when we proposed the reforms, we took into consideration the potential for the reforms to harm the RIN market and communicated our intent to finalize the reforms that we concluded most likely to be beneficial for the RFS program, the RIN market, and the RFS stakeholders, and that do not impose unnecessary burden or cause unintended consequences.

After evaluating the comments received on the proposal, we have decided to finalize two of the proposed five reforms: public disclosure requirements when a party's separated D6 RIN holdings exceed specified thresholds (Reform 1) and reporting and recordkeeping requirements to enhance EPA's market monitoring capabilities (Reform 5). We have decided to continue to collect and evaluate data and not to take final action at this time with regard to the other three of the five reforms that we proposed related to: RIN retirement compliance frequency (Reform 2), which parties can purchase RINs (Reform 3), and how long non-obligated parties can hold D6 RINs (Reform 4). In Section III.B, we discuss our overall rationale for finalizing only a subset of proposed reforms and our general response to market manipulation concerns. In Section III.C, we discuss the elements we are finalizing related to Reform 1. In Section III.D, we discuss the elements we are finalized related to Reform 5. In Section III.E, we discuss the rationale behind not taking final action at this time with respect to proposed Reforms 2, 3, and 4, and the steps we intend to pursue related to these reforms in the future.

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B. Market Manipulation

Price manipulation through anti-competitive behavior, similar to what is referred to as cornering or squeezing the market, and false or misleading representations in transactions, is antithetical to effective market operation.[220] Were such anti-competitive behavior to occur, it could undermine the confidence of market participants in the RIN market and undermine the RFS program itself. However, as stated in the proposal and reaffirmed in this action, we have conducted and reviewed analyses using non-public, individual-level data and have found no data-based evidence such anti-competitive behavior occurring between market participants.

First, prior to the NPRM, we took formal action to investigate claims of manipulation by entering into an MOU with CFTC and providing them with certain RIN data for analysis in order to facilitate an EPA investigation.

Second, during the development of the NPRM, we conducted a screening analysis using individual-level RIN holding data to evaluate historical market shares. We found that the maximum level of D6 RINs that any one party held at a time was between 10 and 14 percent of all D6 RINs.[221] These figures are commensurate with the gasoline and diesel production market share of the largest refiners, which suggested to us that they were likely appropriate holding levels. We also compared each obligated party's D6 RIN holdings to 130 percent of their implied

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[220] Such behaviors may also violate the anti-fraud and anti-manipulation provisions of the Commodity Exchange Act. See, e.g., Section 9(a)(2) of the CEA, 7 U.S.C. 13(a)(2) (2012), which states that it is a felony for "Any person to manipulate or attempt to manipulate the price of any commodity in interstate commerce…or to corner or attempt to corner any such commodity or knowingly to deliver or cause to be delivered for transmission through the mails or interstate commerce by telegraph, telephone, wireless, or other means of communication false or misleading or knowingly inaccurate reports concerning crop or market information or conditions that affect or tend to affect the price of any commodity in interstate commerce." Section 6(c)(1) of the CEA, 7 U.S.C. 9(1) (2012), titled Prohibition against manipulation, states that "it shall be unlawful for any person, directly or indirectly, to use or employ, or attempt to use or employ, in connection with…a contract of sale of any commodity in interstate commerce…any manipulative or deceptive device or contrivance…."

[221] The full analysis is detailed in the memorandum, "Daily Comparison of Individual RIN Holdings to Total Available RINs," available in the docket for this action.

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conventional biofuel RVO.[222] We chose 130 percent because it allows for holdings of 100 percent of their implied conventional biofuel RVO, 20 percent for banking toward the next year's RVO, and 10 percent for additional flexibility and uncertainty. We found that only three obligated parties would have exceeded the 130-percent value at least once in the 2018 compliance year.[223] We were unable to fully aggregate holdings and RVOs by corporate affiliates or account for RINs that an obligated party was holding for a small refinery with an exemption approval from EPA. We were also unable to account for refinery sales, acquisitions, or shutdowns in the year used to calculate RVOs. After reviewing these three companies more closely, taking into consideration the information we were unable to account for in the original screening analysis, we did not identify any instances of excessive holdings or manipulative behavior.

Third, since publishing the NPRM, we conducted additional analysis on the distribution of D6 RIN holdings across the marketplace. On three dates in the 2017 compliance year, chosen because they are representative of seasonal RIN market activity, we evaluated each company's separated D6 RIN holdings beyond what was needed for compliance with the next RVO in the case of obligated parties.[224] On the three dates we examined, we found that "excess" D6 RINs (those RINs in excess of individual RVOs) were available from between 114 and 145 parties, with no single party holding more than 14 percent of all "excess" D6 RINs. See Table III.B-1 for the results of this analysis.

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[222] We only looked at obligated parties whose separated D6 RIN holdings exceeded 450 million at least once in compliance year 2017.
[223] We aggregated all facilities by their company ID in EMTS to get a company total for both RIN holdings and thresholds. See calculations in the memorandum, "Threshold Calculations for D6 RIN Holding Parties," available in the docket for this action.
[224] The full analysis is detailed in the memorandum, "Percentage of D6 RINs Held by a Single Party," available in the docket for this action.

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Table III.B-1: Percentage of all D6 RINs Held by a Single Party

Range of "Excess" D6 RINs	Number of Parties in the Range		
	10/1/17	12/1/17	3/1/18
8-14 percent	2	3	2
5-8 percent	3	1	4
3-5 percent	3	4	1
2-3 percent	5	4	6
1-2 percent	11	10	10
<1 percent	119	123	91
<14 percent	143	145	114

From this analysis, we conclude that "excess" RIN holdings are spread across a large number of parties and that no single party controls an excessive share of the market. In addition, many commenters stated that they have never encountered manipulative behavior in the RIN market and disagree with the concerns that manipulation is occurring or has occurred. For example, a group of associations whose members represent approximately 90 percent of retail sales of motor fuel in the U.S. indicated that none of its constituent associations' members have seen any transactional problems with the current RIN trading structure. Several commenters stated that the reforms EPA proposed are, effectively, a "solution in search of a problem."

We understand that some parties remain concerned about potential market manipulation. Among the comments received on this action, some describe scenarios that appear to the commenter to have been driven by manipulative behavior. Upon examination, however, at least some of these scenarios could be caused by legitimate, non-manipulative market behavior. For example, one commenter describes entering into a forward purchase contract with a counterparty at a price indexed to the future RIN price. The commenter observes the counterparty purchase RINs on the spot market at what they believe are artificially high prices to "drive up" the future index price. We note, however, that a party would need to control an excessive share of the RIN market in order to exercise such undue influence on the spot price, and we have found through our analysis that no party has such market share. We find that the RIN spot price in this case

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could be rising naturally, consistent with market fundamentals. Furthermore, these comments do not contain details of any dates, prices, transaction volumes, or parties involved, so we cannot evaluate them further.

Another commenter compares RIN market data with data from the ethanol, oil, and natural gas markets and presents analytic findings about market inefficiency, such as price volatility, and claim that the results correlate to market manipulation. As explained further in the Response to Comments (RTC) document,[225] these market analyses identify no actual instances of manipulative behavior and merely suggest that market manipulation is a risk because of how the market is designed and functions. On the whole, we do not find these comments or analytic findings to be compelling evidence demonstrating that market manipulation has occurred. We believe that other factors unrelated to market manipulation are more likely to have caused the market dynamics observed by the commenter. For example, as explained in detail in the NPRM, our analysis indicates that RIN price volatility can be largely attributed to market responses to RFS standards and expectations of future EPA policy decisions.[226] Several commenters provided evidence in support of this conclusion. In addition, we do not believe that comparing the liquidity of the RIN market to the liquidity of the ethanol, oil, and natural gas markets is appropriate. As one commenter notes, the RIN market is significantly smaller in size than those markets, which would naturally make it less liquid than a larger market because of the fewer number of parties available to transact with one another. We also note that traditional liquidity

[225] The RTC document is available in the docket for this action.
[226] For a thorough review of historical RIN price data, see Section III.B of the NPRM preamble (84 FR 10605-10607, March 21, 2019) and the memorandum, "RIN Market Assessment," available in the docket for this action. Our assessment of RIN price behavior and the rationale behind it remains the same. See also the RTC document for a response to comment related to RIN price behavior.

measures do not account for the fact that obligated parties must accumulate RINs to comply with regulatory requirements, which is not true in other markets.

Given all of these factors, we have decided that the most appropriate action at this time is to collect more data and conduct additional, enhanced market monitoring and analysis. We do not find that the concerns and analytic findings raised to EPA to date warrant restructuring the RIN market at this time. We do not agree with comments that we should at this time restrict elements of the RIN market, such as who can participate in the market and how long parties can hold RINs, since we have seen no data-based evidence that anti-competitive behavior has occurred. We conclude that such restrictions could adversely impact liquidity and other market functions and would only be warranted if additional monitoring identified anti-competitive behavior that could be managed with such market-wide restrictions. As such, we agree with comments that the RIN market should be allowed to continue operating at this time without additional restrictions while concerns related to anti-competitive behavior should be studied more closely.

Therefore, in this action, we are only finalizing the two reforms (i.e., Reforms 1 and 5) that we believe will enhance our data collection and market monitoring capabilities. We are not taking final action at this time with regard to the other three proposed reforms. We intend to continue to study whether such reforms could benefit the market or, conversely, could have unintended negative consequences.

C. Reform 1: Public Disclosure If RIN Holdings Exceed Certain Threshold

We proposed a requirement for public disclosure when a party's RIN holdings exceed a certain threshold. The fundamental concept underpinning this reform is that increased transparency can help deter market actors from amassing an excess of separated RINs, which due

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to the concentration in ownership of available supplies could result in undue influence or market power. This reform could also provide information to market participants about the underlying status of the market. A concentration of separated RINs, if sufficiently large in scope, could be used by a party to manipulate the market by artificially affecting prices in any direction. The most extreme examples of market power are monopolies, but concentration can be a concern even for markets with many participants when only a few control the majority of available supply at any given point in time.

In this action, we are largely finalizing what we proposed for Reform 1, of which public comment was broadly supportive. We are finalizing two thresholds that work in tandem to identify parties that have amassed RINs in excess of normal business practices, which could indicate an intent to assert an inappropriate influence on the market. Under the threshold reform finalized in this action, a RIN-holding party must aggregate its end-of-day separated D6 RIN holdings with those of its corporate affiliates. If the group of affiliates holds aggregated separated D6 RINs on any day in excess of the primary threshold and contains no obligated party, then the group triggers the primary threshold, and each party in the affiliate group must notify EPA of a threshold exceedance at the end of the quarter. If the group of affiliates holds separated D6 RINs in excess of the primary threshold on any day and contains at least one obligated party, then the aggregated RIN holdings are compared to the secondary threshold. If they exceed both the primary and the secondary thresholds, each member in the affiliate group must notify EPA of a threshold exceedance at the end of the quarter. For an affiliated group containing an obligated party that triggers the primary but not the secondary threshold, no notification to EPA is required by the group members.

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In this action, we are finalizing a requirement for public disclosure when parties exceed the EPA-set RIN-holding threshold. We are finalizing our proposal in the NPRM that no confidentiality claims may be asserted by any person with respect to the name of a party that reported exceeding an EPA-set RIN holding threshold. Some commenters indicated that releasing a party's name could alert other market participants that the party has a large supply of excess RINs, which could weaken their ability to negotiate RIN price for a transaction. After reviewing these comments and reconsidering the conditions leading up to potential public disclosure, we find that a party concerned about triggering the reporting threshold can keep its RIN holdings at a level such that the public disclosure requirement is not triggered. We believe that the thresholds signify an amount of RINs in excess of normal business practices and will not interfere with RIN holdings that are necessary to reasonably manage compliance with the RFS program. Given the amount of notice we are giving parties, we find any party that chooses after January 1, 2020, to acquire RINs in excess of the thresholds is itself causing an alert to market participants about their RIN holdings and is directly responsible itself for any competitive harm, such as depressed RIN prices, that results. Therefore, no claim of business confidentiality may be asserted by any person with respect to the name of a party that exceeds a RIN holding threshold.

We also received comment in support of a prohibitive limit with a potential enforcement consequence if the threshold were exceeded rather than simply relying on public disclosure as a deterrent to inappropriate market behavior. These commenters worried that public disclosure would have no effect on RIN holdings and that a prohibition would be necessary to affect behavior. We disagree with these comments. Furthermore, we decided that a prohibitive limit could have detrimental effects, especially if not designed properly. Excess market power is very difficult to quantify in any given market, even if regulators have perfect knowledge of all market

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conditions. A real risk exists of setting a RIN holding threshold in this rulemaking incorrectly. If a threshold is set too low, it could unnecessarily compromise market efficiency and liquidity and interfere with obligated parties' ability to comply with regulations by disincentivizing them from holding the necessary quantity of RINs to meet their RVO. We therefore believe that a threshold with a consequence of public disclosure is appropriate rather than a holding limit with an enforcement consequence. A threshold serves as a deterrent and warning bell without the risk of causing unnecessary harm. We also believe that, in the face of insufficient evidence of any identified parties currently exhibiting what might be considered excessive market power, public disclosure is an appropriate first action.

Under this reform, we are applying the thresholds to D6 RIN holdings only. After considering comments, we conclude that we can limit the scope of this reform to D6 RINs without compromising its intended effect. First, D6 RINs raise the most stakeholder concern because the price of D6 RINs is expected to vary greatly with very low prices for D6 RINs when the implied RFS requirement for conventional biofuel is below the blendwall to the high prices seen in previous years when the implied RFS requirement for conventional biofuel is above the blendwall. Under this unique set of conditions, the D6 RIN market would present a better opportunity than other D-codes were a party to attempt to drive up RIN prices by withholding large amounts of RINs. Conversely, were a party to withhold a large volume of D4 RINs, additional supplies of D4 RINs could enter the market to meet demand at a marginal increase in price. Second, the nested nature of the RVOs and the unique characteristics of other RIN markets (e.g., D3) would make covering all RIN categories considerably more complicated. We are further limiting this measure to separated RINs because we believe the physical storage limitations faced by renewable fuel already reduce the opportunity for price manipulation of

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assigned RINs and that the existing regulations at 40 CFR 80.1428 already include anti-hoarding provisions for RINs attached to renewable fuel.

We are finalizing a primary threshold of three percent of the total implied conventional biofuel volume requirement set for that year by EPA in the RVO rule, which is the total renewable fuel volume requirement minus the advanced fuel volume requirement (e.g., the primary threshold would have been three percent of 15 billion gallons for compliance year 2018). When we were contemplating this reform for the NPRM, we looked at the linked cap-and-trade programs implemented by California and Quebec as examples. They use a formula that calculates a holding limit of about three percent of their combined annual allowance budgets every year. We received comments that a three percent threshold is appropriate, and several commenters stated that it is too low. We continue to believe that it is low enough to identify parties that have acquired RIN holdings larger than necessary for normal business operations and that may indicate an effort to assert inappropriate market power. On the other hand, given the comments that a RIN holding threshold set too low could discourage blending and cause harm to parties, we continue to believe that going any lower than three percent would be unwarranted.

We are finalizing a secondary threshold for obligated parties of 130 percent of the individual implied conventional RVOs of all obligated parties in the affiliate group. As stated in comments, we recognize that larger obligated parties with large RVOs have valid reasons to accumulate and hold a volume of RINs that might exceed the primary threshold, not only to meet their next annual compliance obligation but also to bank additional RINs for compliance with the following year's obligation. Therefore, we recognize that the secondary threshold has to account for and allow RINs held to meet compliance obligations. We chose 130 percent because it allows for holdings of 100 percent of their implied conventional biofuel RVO, 20 percent for banking,

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and 10 percent for additional flexibility and uncertainty. After considering comments, we believe that this 10 percent flexibility is important because it could, for example, cover potentially invalid D6 RINs that may not be sold or retired according to the existing RFS regulations or small changes to gasoline and diesel production and import volumes from one year to another that affect the RIN holding calculations.

We are finalizing an approach to calculating the primary and secondary thresholds that adjusts depending on how many RVOs are in effect.[227] For anytime between April 1 and December 31, when only one set of annual RVOs is in effect, the primary threshold will equal three percent of the annual implied conventional biofuel volume requirement established by EPA in a rule promulgated each year to set the annual renewable fuel standards. In a hypothetical example, this would amount to three percent of 15 billion D6 RINs, or 450 million D6 RINs. In that same period, an obligated party would calculate its secondary threshold by multiplying its gasoline and diesel production and import volume from the prior year by the difference between the obligated party's renewable fuel percentage standard from the prior year and the advanced fuel percentage standard from the prior year and account for any deficit volume it carried over from the prior year. For anytime between January 1 and March 31, when two sets of annual RVOs are in effect, the primary threshold will be three percent of 125 percent of the annual implied conventional biofuel volume requirement. In our hypothetical example, this would amount to three percent of 18.75 billion D6 RINs, or 562.5 million D6 RINs. In that same period, the secondary threshold would be calculated using the obligated party's gasoline and diesel

[227] RFS regulations set the compliance deadline for each year at March 31 of the subsequent year. For example, the 2017 compliance deadline (i.e., the deadline for retiring RINs based on 2017 volumes) was March 31, 2018. To continue with the example, in the period between January 1 and March 31, 2018, obligated parties were likely holding 2016 and/or 2017 RINs toward compliance with their 2017 obligations (on or before March 31, 2018) and were also beginning to collect and hold 2018 years toward comply with their 2018 obligations (on or before March 31, 2019). Therefore, during that three-month period, two RVOs are in place.

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production and import volume from the prior year multiplied by 125 percent of the obligated party's difference between the renewable fuel percentage standard from the prior year and the advanced fuel percentage standard from the prior year and account for any deficit volume it carried over from the prior year. The threshold in the first quarter of the year is 125 percent of the other months because parties may need to hold RINs for two overlapping RVOs in that quarter rather than just one.

Under this reform, two parties are corporate affiliates if one party has more than 20-percent ownership in the other or if both parties are owned more than 20 percent by the same parent company. We chose this "more than 20" percent ownership level because it is consistent with the value that the California Cap-and-Trade Program[228] uses to define indirect corporate association and with the value that the Regional Greenhouse Gas Initiative (RGGI) program[229] uses to define corporate association. Those programs are useful points of comparison because they also implement environmental credit programs and monitor their credit markets for anti-competitive behavior. We received no comments on the 20 percent value or providing suggestions for a different value. Only corporate affiliates registered to own RINs in the EPA Moderated Transaction System (EMTS)[230] are included in the RIN holding aggregation. Corporate affiliates that are not registered in EMTS do not need to be included in the threshold calculations as these affiliates cannot hold RINs.

We are finalizing the requirement that each RIN-holding party compare the daily aggregated RIN holdings of its affiliate group with the primary threshold and, if applicable, the

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[228] More information on California's Cap and Trade program can be found at *https://www.arb.ca.gov/cc/capandtrade/capandtrade.htm*.
[229] The Regional Greenhouse Gas Initiative (RGGI) is a cooperative effort among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont to cap and reduce CO_2 emissions from the power sector. More information on RGGI can be found at *https://www.rggi.org*.
[230] EMTS was designed to allow companies to report and track RIN transactions under the RFS program.

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secondary threshold. If the relevant threshold is exceeded on any day in the quarter, the affiliate group parties must report the exceedance in their next RIN Activity Report. To be clear, the parties may conduct the required comparison of daily RIN holdings to the thresholds as infrequently as quarterly to comply with the requirements. For example, a party may proceed by noting its separated D6 RIN holdings at the beginning of the quarter then keeping track throughout the quarter of the volume and date of every RIN purchase and sale, as already required under the RFS recordkeeping provisions at 40 CFR 80.1454(i). At the end of the quarter, the party would then compute what the RIN holdings were on each day of the quarter and aggregate those daily numbers with those of its affiliates. On the other hand, parties may choose to conduct the comparison more frequently, such as monthly, weekly, or daily. For example, a party with large RIN holdings that conducts transactions often throughout the month may wish to aggregate its daily RIN holdings with those of its affiliate group members frequently to know when aggregated levels are approaching the relevant threshold and when action might be needed to avoid exceeding the threshold on an upcoming day. After considering comments, we believe that quarterly reporting is an adequate frequency for EPA and public notification of potentially-concerning market power while also appropriately minimizing the calculation burden on parties that feel they are at very low risk of exceeding the relevant threshold.

We are adding a yes/no reporting requirement on exceeding the thresholds to the RIN Activity Report that all RIN-holding parties are already required to submit to EPA quarterly. A party will select "no" if the threshold is not exceeded during the given quarter or "yes" if it is exceeded at least once in the quarter. We will publish on a quarterly basis only the names of the parties that reported "yes". We are also adding a reporting requirement to the RIN Activity

Report that RIN-holding parties submit to EPA on RIN-holding corporate affiliates and all contractual affiliates.[231] This affiliate information will not be published by EPA. We proposed that the names of these affiliates be reported in a list submitted to EPA by the attest auditor in June following the affected compliance year. Based on comments that annual reporting of affiliates is insufficient and should be required more frequently and on a more thorough assessment of our data system capabilities, we are putting the reporting requirements in the RIN Activity Report rather than the attest engagement report. We believe that RIN-holding corporate affiliate and all contractual affiliate names can help EPA confirm RIN holding calculations, compare aggregated RIN holdings to other threshold levels beyond those finalized in this action, and conduct market oversight. Therefore, we prefer to collect this affiliate information in a more useful format than a hard-coded list attached to an attest report. Furthermore, we want to collect this information as soon as possible while providing parties adequate time to prepare. Since the calculations and recordkeeping requirements will take effect on January 1, 2020, the first yes/no report on exceeding the threshold will be submitted by June 1, 2020, and the auditor findings of that report will be submitted to EPA by June 1, 2021. We prefer to receive the affiliate information by June 1, 2020, rather than in 2021. Therefore, for each quarterly RIN Activity Report submitted after January 1, 2020, each party must enter the names and EPA company IDs of each RIN-holding corporate affiliate and each contractual affiliate from that quarter, regardless of whether they also report exceeding the RIN holding threshold.

We are requiring that the reported contractual affiliates include those that do not own RINs and that are not registered with EPA to own RINs. For example, a party with a contract in place to purchase or hold RINs for a company not registered in EMTS would report that

[231] As defined in both the proposal and this action, contractual affiliation relates only to contracts for purchasing or holdings RINs and is not factored into the threshold analysis

company's name to EPA. Based on comments received, we continue to believe we need a wider picture of contractual affiliations than those in EMTS so that we can maintain some insight into any additional market share over which parties might have control. For example, we will monitor for a non-registered party that has established contracts with multiple parties to purchase and hold a large number of aggregated RINs on its behalf. We will treat these lists as potential CBI and will treat them according to 40 CFR part 2, subpart B, until determined otherwise.

A designated company official will be required to certify the completeness and accuracy of the threshold and affiliate answers upon report submission. In addition, the independent auditor must review threshold calculations during the attest engagement process and include in their attest engagement report to EPA any findings. This includes confirmation that the D6 RIN holdings and RVOs, if applicable, of all corporate affiliates were fully and properly accounted for in the calculations. Therefore, we are requiring that parties registered to hold RINs keep as records all threshold calculations, including corporate affiliate values, and provide those records to the auditor for review.

The calculation finalized in this action uses gasoline and diesel production and import volumes from the prior compliance year as a proxy for volumes in the current year. After considering comments, we recognize that the calculations can be an inaccurate representation of current year volumes in some cases, such as mergers or big changes in import volumes from year to year. Therefore, in response to comments, we are adding alternative provisions to the regulation that obligated parties can use, if specific criteria are met, to account for such discrepancies in their volume calculations. Any party that uses the alternative provisions is required to report the volume it calculated in its RIN Activity Report alongside the other required threshold information.

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D. *Reform 5: Enhancing EPA's Market Monitoring Capabilities*

In this action, we are taking additional steps to enhance our market monitoring capabilities in order to better detect potential market manipulation. Monitoring the RIN market requires a substantial amount of market data. Prior to this action, we have required parties to report RIN trade prices, RIN trade volumes, and the parties involved in the RIN transaction. With this action, we are adding new reporting requirements.

As described in Section III.C, we are requiring parties to report the names of RIN-holding corporate affiliates and all contractual affiliates in their RIN Activity Reports. Since it will be collected in that form, we are not requiring that auditors include affiliate lists in their annual attest engagements submitted to EPA. We are only requiring attest auditors to review the RIN Activity Reports and confirm that the information reported about the threshold analysis and the affiliates was reported correctly. The auditor's findings will be reported to EPA as usual in the findings report.

We are requiring that a per-gallon RIN price be reported for a separated RIN transaction and that a price of $0.00 only be allowed for certain types of transactions. Prior to this action, we have allowed intracompany and tolling agreement transactions to report a RIN price of $0.00. In the proposal, we requested comment on any other legitimate reasons for reporting a $0.00 RIN price. Given the comments received, we are adding consignment transactions and RIN pass-back transactions to the list of transactions allowed to report a RIN price of $0.00.

We are requiring that transactions at a price other than $0.00 be reported as either a spot type or a term type.[232] We believe that collecting this additional information will improve our understanding of the RIN price reported and will allow us to filter term type prices out of the

[232] EPA considers a spot type to be a transaction at fixed price, fixed quantity, and single delivery. EPA considers a term type as a transaction that isn't fixed price, fixed quantity, or single delivery.

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RIN price dataset that we publish and analyze internally for compliance oversight. Thus, the published price will be a better reflection of market prices on a given day.

We also confirm our intention to take non-regulatory steps after promulgation of this action to update business rules in EMTS such that both parties in a RIN transaction must enter the same RIN price in EMTS for the transaction to clear. Prior to this action, EMTS already had a business rule that required both parties in a RIN transaction to enter the same RIN volume, and this business rule has been very helpful in maintaining high quality volume data that we can reliably publish and use for compliance oversight. These and other business rules prevent data entry errors and prompt parties that have not properly followed the instructions in the regulations to correct their numbers. By adding a similar business rule to EMTS on RIN prices, we believe we can prevent reporting errors and improve the quality and reliability of our price data.

Finally, we are affirming our intent to employ a third-party outside of the regulatory process to monitor of the RIN market. We are aware of other environmental commodity markets that employ third-party market monitoring services to conduct analysis of the market, including screening for potential anti-competitive behavior or market manipulation. For example, the Western Climate Initiative, Inc. provides administrative services to the linked cap and trade programs in Quebec and California, including managing a contract with a company that provides independent marketing monitoring for the jurisdictions. Quebec and California each maintain market monitoring capabilities to oversee the joint market. In addition, RGGI contracts with a third party to monitor its carbon dioxide (CO_2) allowance trading market and produce and publish quarterly and annual reports summarizing their findings. Based on comments received, we continue to believe additional RIN market oversight and monitoring from an independent third party can serve as a deterrent to manipulative behavior and increase market transparency,

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enabling the market to more easily function as designed. We intend to access a third-party market monitor after promulgation of this action through a standard contract mechanism, which requires contractor employees to maintain the same CBI safeguards as EPA employees.

E. Other Reforms Proposed but Not Finalized at This Time

In the NPRM, we proposed regulations related to three other reforms that were included in the President's Directive. Under Reform 2, we proposed that obligated parties would be required to retire 80 percent of their renewable fuel RVO after the first three quarters of the reporting year. Under Reform 3, we proposed that only certain non-obligated parties would be allowed to purchase separated D6 RINs, including exporters and those with a contract in place to supply obligated parties with RINs. Under Reform 4, we proposed that the number of D6 RINs a non-obligated party separated or purchased in a quarter would need to equal the number of D6 RINs it sold or retired in that same quarter. We sought comment on the potential benefits as well as potential downsides of these three reforms.

After reviewing the comments received, we have decided not to take final action with respect to the proposed regulatory amendments. In the NPRM, we explained that we have not seen any data-based evidence that market manipulation is occurring and that we were proposing the reforms to prevent market manipulation from possibly taking root in the future. We also emphasized that we were proceeding carefully because of the potential for these reforms to cause harm to the RIN market. Nothing in the comments received provides any additional data-based evidence or compelling information that alters the assessment of market manipulation we presented in the NPRM. Therefore, we are finalizing Reforms 1 and 5, which will provide additional data for EPA to analyze and discourage excessive RIN holdings. If, after reviewing that data and conducting additional market analysis, we determine that it would be prudent to

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finalize Reform 2, 3, or 4 in the future, we will share the analysis that has led us to believe it could be appropriate and will allow time for parties to respond, through a separate notice to the public and an additional period provided for public comment, before we proceed with a final rule codifying one or more of these proposed reforms. To that end, we have not further summarized or responded to comments on these three reforms in this action.

F. RIN Market Reform Economic Impacts

As EPA is finalizing just Reforms 1 and 5 in this action, the impacts of this action are expected to be increased transparency and minor costs associated with recordkeeping and reporting requirements. If EPA were to proceed further and finalize Reforms 2, 3, or 4, the agency would evaluate those impacts in the associated regulatory action(s).

1. Benefits of RIN Market Reform

The goals of the reforms finalized in this action are to increase our capability to monitor the market for anti-competitive behavior as well as to discourage RIN holding levels in excess of normal business practices. Therefore, we believe the net benefit of this action will be to support increased confidence in the RIN market and reduce perceived market risk. These reforms also provide the added benefit of increasing transparency into the RIN market. In general, commodities markets function optimally when all participants have access to as much information as possible, and this information is disseminated or shared with all parties at the same time. This helps create a level playing field and minimize any potential advantage one party may have over another. The net benefit of greater transparency helps market participants, such as obligated parties, plan short- and long-term strategies to manage their compliance costs.

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2. Costs of RIN Market Reform

As detailed in Sections III.C and D, we are requiring additional reporting and recordkeeping for obligated parties under the RFS program and non-obligated parties that participate in the RIN market. As detailed in Section III.E, because we are not finalizing Reforms 2, 3, and 4 at this time, including the reporting and recordkeeping requirements proposed in association with those reforms, we expect modest costs to regulated entities associated with this final rule.[233] Specifically, we only anticipate minimal costs associated with reporting and recordkeeping requirements related to RIN holdings, affiliated parties, and any other data elements EPA collects as informed by Reforms 1 and 5. Therefore, we believe this action will not significantly affect RIN prices or market participation.

IV. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is a significant regulatory action that was submitted to the Office of Management and Budget (OMB) for review. Any changes made in response to OMB recommendations have been documented in the docket.

B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is considered an Executive Order 13771 regulatory action. Details on the estimated costs of this final rule can be found in Sections II.G.2 and III.F.2.

C. Paperwork Reduction Act (PRA)

With respect to the E15 1-psi waiver portion of this action, no new information collection burden is imposed under the PRA. OMB has previously approved the information collection

[233] For a quantitative breakdown of new recordkeeping and reporting burden imposed by this action, see "Final Rule ICR Detailed Burden Tables" and "Final Rule ICR Supporting Statement" materials in the docket for this action.

activities contained in the existing regulations and has assigned OMB control number 2060-0675. The changes to the regulations will remove a small segment of language on PTDs required to be generated and kept as records by parties that make and distribute gasoline under the regulations at 40 CFR part 80, subpart N. These changes will not require any additional information from regulated parties nor do we believe that these changes will substantively alter practices used by regulated parties to satisfy the PTD regulatory requirements.

The information collection activities related to the RIN market reform portion of this rule have been submitted for approval to OMB under the PRA. The Information Collection Request (ICR) document that EPA prepared has been assigned EPA ICR number 2592.01. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here.

This ICR includes all additional RFS related information collection activities resulting from the Modifications to Fuel Regulations to Provide Flexibility for E15; Modifications to RFS RIN Market Regulations final rulemaking. These information collection activities include new recordkeeping and reporting requirements finalized under 40 CFR Part 80, subpart M.

Respondents/affected entities: The respondents to this information collection fall into the following general industry categories: petroleum refineries, ethyl alcohol manufacturers, other basic organic chemical manufacturing, chemical and allied products merchant wholesalers, petroleum bulk stations and terminals, petroleum and petroleum products merchant wholesalers, gasoline service stations, and marine service stations.

Respondent's obligation to respond: Mandatory.

Estimated number of respondents: 22,119.

Frequency of response: Quarterly, annually.

Total estimated burden: 240,375 hours (per year). Burden is defined at 5 CFR 1320.3(b).

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Total estimated cost: $22,652,928 (per year).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. Small entities that will be subject to the final rulemaking include domestic refiners that produce gasoline and/or diesel. In addition to domestic refiners, EPA believes the final rulemaking will also apply to other small entities. These entities include: non-obligated parties under the RFS program that transact RINs; blenders that separate RINs from assigned volumes of renewable fuel; and brokers that facilitate transactions of RINs between parties. With respect to the E15 1-psi waiver portion of this action, the regulatory changes do not substantively alter the regulatory requirements on parties that make and distribute gasoline. Additionally, the interpretation to allow E15 to receive the 1-psi waiver will allow parties that make and distribute E15, including small entities, more flexibility in the summer to satisfy market demands. With respect to the RIN market reform provisions of this action, we have conducted a screening analysis to assess whether we should make a finding that this action will not have a significant economic impact on a substantial number of small entities.[234] As detailed in that analysis, the administrative recordkeeping and reporting burden imposed by the final rulemaking suggests minimal impacts to all entities, including non-obligated parties under the RFS program.

[234] See "Screening Analysis for the Final Modifications to RFS RIN Market Regulations," available in the docket for this action.

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E. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of $100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. This action implements mandates specifically and explicitly set forth in CAA sec. 211 and we believe that this action represents the least costly, most cost-effective approach to achieve the statutory requirements.

F. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. Consistent with the EPA Policy on Consultation and Coordination with Indian Tribes, EPA consulted with tribal officials during the development of this action. On February 28, 2019, EPA met with the National Tribal Air Association to highlight the upcoming proposed rulemaking. EPA did not receive any feedback at this consultation meeting or in subsequent comments.

H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that EPA has reason to believe may disproportionately affect children, per the definition of "covered regulatory action" in section 2-202 of the Executive Order. This action is not subject to Executive Order 13045 because it does not concern an environmental health risk or safety risk.

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I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not a "significant energy action" because it is not likely to have a significant adverse effect on the supply, distribution or use of energy. The flexibility provided to E15 by this action will enable additional supply of energy but are not expected to have an immediate significant effect on supply, distribution, or use of energy. The modifications to the RFS compliance system are not expected to have a significant effect on supply, distribution, or use of energy.

J. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.

K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low income populations, and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). As discussed in Section II.F, we do not believe that this action will have any meaningful environmental impacts (positive or negative).

L. Congressional Review Act (CRA)

This action is subject to the CRA, and EPA will submit a rule report to each House of the Congress and to the Comptroller General of the United States. This action is not a "major rule" as defined by 5 U.S.C. § 804(2).

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V. Statutory Authority

Statutory authority for this action comes from section 211 of the Clean Air Act, 42 U.S.C. 7545. Additional support for the procedural and compliance related aspects of this rule comes from sections 114, 208, and 301(a) of the Clean Air Act, 42 U.S.C. 7414, 7542, and 7601(a).

List of Subjects in 40 CFR Part 80

Environmental protection, Fuel additives, Gasoline, Labeling, Motor vehicle pollution, Penalties, Reporting and recordkeeping requirements.

Dated: 5-30-19.

Andrew R. Wheeler,

Administrator.

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Note:

This appendix does not appear in the EPA regulations at 40 CFR part 80.

Appendix—Definition: Substantially Similar

EPA will treat any gasoline-ethanol blend containing more than 10 but no more than 15 volume percent ethanol ("E15"), and denatured fuel ethanol used to make such a gasoline-ethanol blended fuel for use by any person in light-duty vehicles manufactured after model year 2001[1] as substantially similar to any unleaded gasoline or gasoline additive utilized in the certification of any light-duty motor vehicle under sections 206 and 213(a) of the Clean Air Act with certification fuel in accordance with 40 CFR 86.113-15 if the following criteria are met.

(1) *Fuel composition criteria.* The E15 must contain carbon, hydrogen, and oxygen, nitrogen, and/or sulfur, exclusively,[2] in the form of some combination of the following:

(a) Hydrocarbons;

(b) Denatured fuel ethanol that meets the specifications of ASTM International Standard D4806-19;

(c) Additional fuel additive(s)[3] at a concentration of no more than 1.0 percent by volume which contributes no more than 3 ppm sulfur by weight to the finished fuel; and

(d) The gasoline-ethanol blended fuel, denatured fuel ethanol, and any additives blended into the fuel must contain only carbon, hydrogen, and any one or all of the following elements: Oxygen, nitrogen, and/or sulfur.[4]

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[1] This definition does not apply to model year 2000 and older light-duty motor vehicles, heavy-duty gasoline engines and vehicles, on and off-highway motorcycles, and nonroad engines, vehicles, and equipment.
[2] Impurities that produce gaseous combustion products (i.e., products which exist as a gas at Standard Temperature and Pressure) may be present in the fuel at trace levels. An impurity is a substance that is present through unintentional contamination, or remains naturally, after normal processing of the fuel is completed, including where applicable processing that attempted to remove such impurities.
[3] For the purposes of this interpretative rule, the term "fuel additive" refers only to that part of the additive package that is not hydrocarbon.
[4] Impurities which produce gaseous combustion products may be present in the fuel additive at trace levels.

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(2) *Physical and chemical characteristics criteria.* The gasoline-ethanol blended fuel must possess all of the following:

(a) The physical and chemical characteristics of an unleaded automotive spark-ignition engine fuel (i.e., unleaded gasoline) as specified in ASTM International Standard D4814–19 for at least one of the United States Seasonal and Geographical Volatility Classes specified in the standard;

(b) The applicable distillation temperature limitations listed in the Vapor Pressure and Distillation Class Requirements as specified in ASTM International Standard D4814–19; and

(c) The gasoline-ethanol blended fuel does not exceed 9.0 pounds per square inch (psi) RVP during the time period from May 1 to September 15.[5]

(3) *Misfueling mitigation criteria.* Fuel and fuel additive manufacturers that introduce E15 or ethanol for use in the manufacture of E15 must take reasonable precautions to mitigate the misfueling of vehicles, engines, and equipment not covered by this definition (i.e., anything other than a model year 2001 and newer light-duty vehicle). Fuel and fuel additive manufacturers must submit to EPA a plan, for EPA's approval, and must fully implement that EPA-approved plan, prior to introduction of E15 or ethanol for use in the manufacture of E15 into commerce. The plan must include provisions that will implement all reasonable precautions for ensuring that the E15 is only introduced into commerce for use in model year 2001 and newer light-duty vehicles. The plan must be sent to the following address: Director, Compliance Division, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW. Mail Code 6405J, Washington, DC 20460.

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[5] Gasoline-ethanol blended fuels containing more than 10 and no more than 15 volume percent ethanol may have an RVP of 1.0 psi greater than the applicable RVP limitations set under section 211(h)(1) of the Act as allowed under section 211(h)(4) of the Act.

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(4) Failure to fully fulfill any criteria of this definition means the fuel or fuel additive introduced into commerce is not covered by this definition.

Amendments to Regulations

For the reasons set forth in the preamble, EPA amends 40 CFR Part 80 as follows:

Part 80—REGULATION OF FUEL AND FUEL ADDITIVES

1. The authority citation for part 80 continues to read as follows:

Authority: 42 U.S.C. 7414, 7521, 7542, 7545, and 7601(a).

Subpart B—Controls and Prohibitions

2. Section 80.27 is amended by revising paragraph (d)(2) to read as follows:

§80.27 Controls and prohibitions on gasoline volatility.

* * * * *

(d) * * *

(2) In order to qualify for the special regulatory treatment specified in paragraph (d)(1) of this section, gasoline must contain denatured, anhydrous ethanol. The concentration of the ethanol, excluding the required denaturing agent, must be at least 9% and no more than 15% (by volume) of the gasoline. The ethanol content of the gasoline shall be determined by the use of one of the testing methodologies specified in §80.47. The maximum ethanol content shall not exceed any applicable waiver conditions under section 211(f) of the Clean Air Act.

* * * * *

3. Section 80.28 is amended by revising paragraphs (g)(6)(iii), (g)(8) introductory text, and (g)(8)(ii) as follows:

§80.28 Liability for violations of gasoline volatility controls and prohibitions.

* * * * *

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(g) * * *

(6) * * *

(iii) That the gasoline determined to be in violation contained no more than 15% ethanol (by volume) when it was delivered to the next party in the distribution system.

* * * * *

(8) In addition to the defenses provided in paragraphs (g)(1) through (6) of this section, in any case in which an ethanol blender, distributor, reseller, carrier, retailer, or wholesale purchaser-consumer would be in violation under paragraph (b), (c), (d), (e), or (f) of this section, as a result of gasoline which contains between 9 and 15 percent ethanol (by volume) but exceeds the applicable standard by more than one pound per square inch (1.0 psi), the ethanol blender, distributor, reseller, carrier, retailer or wholesale purchaser-consumer shall not be deemed in violation if such person can demonstrate, by showing receipt of a certification from the facility from which the gasoline was received or other evidence acceptable to the Administrator, that:

* * * * *

(ii) The ethanol portion of the blend does not exceed 15 percent (by volume); and

* * * * *

Subpart M—Renewable Fuel Standard

4. Section 80.1401 is amended by adding in alphabetical order definitions for "Contractual affiliate," "Corporate affiliate," "Corporate affiliate group," "DX RIN," and "End of Day" to read as follows:

§80.1401 Definitions.

* * * * *

Contractual affiliate means one of the following:

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(1) Two parties are contractual affiliates if they have an explicit or implicit agreement in place for one to purchase or hold RINs on behalf of the other or to deliver RINs to the other. This other party may or may not be registered under the RFS program.

(2) Two parties are contractual affiliates if one RIN-owning party purchases or holds RINs on behalf of the other. This other party may or may not be registered under the RFS program.

* * * * *

Corporate affiliate means one of the following:

(1) Two RIN-holding parties are corporate affiliates if one owns or controls ownership of more than 20 percent of the other.

(2) Two RIN-holding parties are corporate affiliates if one parent company owns or controls ownership of more than 20 percent of both.

Corporate affiliate group means a group of parties in which each party is a corporate affiliate to at least one other party in the group.

* * * * *

DX RIN means a RIN with a D code of X, where X is the D code of the renewable fuel as identified under §80.1425(g), generated under §80.1426, and submitted under §80.1452. For example, a D6 RIN is a RIN with a D code of 6.

* * * * *

End of day means 7:00 a.m. Coordinated Universal Time (UTC).

* * * * *

5. Section 80.1402 is added to read as follows:

§80.1402 Availability of information; confidentiality of information.

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(a) Beginning January 1, 2020, no claim of business confidentiality may be asserted by any person with respect to information submitted to EPA under §80.1451(c)(2)(ii)(E), whether submitted electronically or in paper format. EPA may make information submitted under §80.1451(c)(2)(ii)(E) available to the public.

(b) [Reserved]

6. Section 80.1435 is added to read as follows:

§80.1435 How are RIN holdings and RIN holding thresholds calculated?

Beginning January 1, 2020, any party that holds RINs must comply with the requirements of this section.

(a) *RIN holdings calculation.*

(1) Each party must calculate daily end-of-day separated D6 RIN holdings by aggregating its end-of-day separated D6 RIN holdings with the end-of-day separated D6 RIN holdings of all corporate affiliates in a corporate affiliate group and use the end-of-day separated D6 RIN holdings as specified in paragraph (b) of this section.

(2) Each party must calculate, as applicable, the holdings-to-market percentage under paragraph (b)(1) of this section and the holdings-to-obligation percentage under paragraph (b)(2) of this section quarterly in accordance with the schedule specified in Table 1 to §80.1451.

(3) For a corporate affiliate group containing at least one obligated party that has a holdings-to-market percentage greater than 3.00 percent for any calendar day in a compliance period, as determined under paragraph (b)(1) of this section, each party must calculate the corporate affiliate group's holdings-to-obligation percentage as specified in paragraph (b)(2) of this section.

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(4) Each party must individually keep copies of all calculations and supporting information for separated D6 RIN holding threshold calculations required under this section as specified in §80.1454(u).

(b) *RIN holding thresholds calculations.*

(1) *Primary test calculations.* For each day in a compliance period, each party that owns RINs must calculate the holdings-to-market percentage for their corporate affiliate group using the method specified in paragraph (b)(1)(i) or (b)(1)(ii) of this section, as applicable.

(i) For each day beginning January 1 through March 31, calculate the holdings-to-market percentage for a corporate affiliate group as follows:

$HTMP_d = [(\sum D6RIN_d)_a / (CNV\_VOL_{TOT,i} * 1.25)] * 100$

Where:

$HTMP_d$ = The holdings-to-market percentage is the percentage of separated D6 RINs a corporate affiliate group holds on calendar day d relative to the total expected number of separated D6 RINs in the market in compliance period i, in percent.

d = A given calendar day.

i = The compliance period, typically expressed as a calendar year.

a = Individual corporate affiliate in a corporate affiliate group.

$(\sum D6RIN_d)_a$ = Sum of the number of separated D6 RINs each individual corporate affiliate a holds at the end of calendar day d, in RIN-gallons.

$CNV\_VOL_{TOT,i}$ = The total expected annual volume of conventional renewable fuels for the compliance period i, in gallons. Unless otherwise specified, this number is 15 billion gallons.

(ii) For each day beginning April 1 through December 31, calculate the holdings-to-market percentage for a corporate affiliate group as follows:

$HTMP_d = [(\sum D6RIN_d)_a / (CNV\_VOL_{TOT,i})] * 100$

Where:

$HTMP_d$ = The holdings-to-market percentage is the percentage of separated D6 RINs a corporate affiliate group holds on calendar day d relative to the total expected number of separated D6 RINs in the market in compliance period i, in percent.

d = A given calendar day.

i = The compliance period, typically expressed as a calendar year.

a = Individual corporate affiliate in a corporate affiliate group.

$(\sum D6RIN_d)_a$ = Sum of the number of separated D6 RINs each individual corporate affiliate a holds at the end of calendar day d, in RIN-gallons.

$CNV\_VOL_{TOT,i}$ = The total expected annual volume of conventional renewable fuels for compliance period i, in gallons. Unless otherwise specified, this number is 15 billion gallons.

(2) *Secondary threshold calculations*. For each day in a compliance period where a corporate affiliate group is required to calculate with the secondary threshold requirement under paragraph (a)(3) of this section, each party must calculate the holdings-to-obligation percentage for their corporate affiliate group using the methods at paragraph (b)(2)(i) or (b)(2)(ii) of this section, as applicable.

(i) For each day beginning January 1 through March 31, calculate the holdings-to-obligation percentage as follows:

$HTOP_d = [(\sum D6RIN_d)_a / \{[(\sum CNV\_RVO_{i-1})_a + (\sum CNV\_DEF_{i-1})_a + (\sum CNV\_DEF_{i-2})_a] * 1.25\}] * 100$

Where:

$HTOP_d$ = The holdings-to-obligation percentage is the percentage of separated D6 RINs a corporate affiliate group holds on calendar day d relative to their expected separated D6 RIN holdings based on the corporate affiliate group's conventional RVO for compliance period i-1, in percent.

d = A given calendar day.

i = The compliance period, typically expressed as a calendar year.

a = Individual corporate affiliate in a corporate affiliate group.

$(\sum D6RIN_d)_a$ = Sum of the number of separated D6 RINs each individual corporate affiliate a holds on calendar day d, in RIN-gallons.

$(\sum CNV\_RVO_{i-1})_a$ = Sum of the conventional RVOs for each individual corporate affiliate a for compliance period i-1 as calculated in paragraph (b)(2)(iii) of this section, in RIN-gallons.

$(\sum CNV\_DEF_{i-1})_a$ = Sum of the conventional deficits for each individual corporate affiliate a as calculated in paragraph (b)(2)(iv) of this section for compliance period i-1, in RIN-gallons.

$(\sum CNV\_DEF_{i-2})_a$ = Sum of the conventional deficits for each individual corporate affiliate a as calculated in paragraph (b)(2)(iv) of this section for compliance period i-2, in RIN-gallons.

(ii) For each day beginning April 1 through December 31, calculate the holdings-to-obligation percentage as follows:

$$HTOP_d = \{(\sum D6RIN_d)_a / [(\sum CNV\_RVO_{i-1})_a + (\sum CNV\_DEF_{i-1})_a]\} * 100$$

Where:

$HTOP_d$ = The holdings-to-obligation percentage is the percentage of separated D6 RINs a corporate affiliate group holds on calendar day d relative to their expected separated D6 RIN

holdings based on the corporate affiliate group's conventional RVO for compliance period i-1, in percent.

d = A given calendar day.

i = The compliance period, typically expressed as a calendar year.

a = Individual corporate affiliate in a corporate affiliate group.

$(\sum D6RIN_d)_a$ = Sum of the number of separated D6 RINs each individual corporate affiliate a holds on calendar day d, in RIN gallons.

$(\sum CNV\_RVO_{i-1})_a$ = Sum of the conventional RVOs for each individual corporate affiliate a for compliance period i-1 as calculated in paragraph (b)(2)(iii) of this section, in RIN-gallons.

$(\sum CNV\_DEF_{i-1})_a$ = Sum of the conventional deficits for each individual corporate affiliate a as calculated in paragraph (b)(2)(iv) of this section for compliance period i-1, in RIN-gallons.

(iii) As needed to calculate the holdings-to-obligation percentage in paragraphs (b)(2)(i) and (b)(2)(ii) of this section, calculate the conventional RVO for an individual corporate affiliate as follows:

$$CNV\_RVO_i = \{[RFStd_{RF,i} * (GV_i + DV_i)] - [RFStd_{AB,i} * (GV_i + DV_i)]\} + ERVO_{RF,i}$$

Where:

CNV_RVO_i = The conventional RVO for an individual corporate affiliate for compliance period i without deficits, in RIN-gallons.

i = The compliance period, typically expressed as a calendar year.

$RFStd_{RF,i}$ = The standard for renewable fuel for compliance period i determined by EPA pursuant to §80.1405, in percent.

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$RFStd_{AB,i}$ = The standard for advanced biofuel for compliance period i determined by EPA pursuant to §80.1405, in percent.

GV_i = The non-renewable gasoline volume, determined in accordance with §80.1407(b), (c), and (f), which is produced in or imported into the 48 contiguous states or Hawaii by an obligated party for compliance period i, in gallons.

DV_i = The non-renewable diesel volume, determined in accordance with §80.1407(b), (c), and (f), which is produced in or imported into the 48 contiguous states or Hawaii by an obligated party for compliance period i, in gallons.

$ERVO_{RF,i}$ = The sum of all renewable volume obligations from exporting renewable fuels, as calculated under §80.1430, by an obligated party for compliance period i, in RIN-gallons.

(iv) As needed to calculate the holdings-to-obligation percentage in paragraphs (b)(2)(i) and (b)(2)(ii) of this section, calculate the conventional deficit for an individual corporate affiliate as follows:

$CNV\_DEF_i = D_{RF,i} - D_{AB,i}$

Where:

CNV_DEF_i = The conventional deficit for an individual corporate affiliate for compliance period i, in RIN-gallons. If a conventional deficit is less than zero, use zero for conventional deficits in paragraphs (b)(2)(i) and (b)(2)(ii) of this section.

i = The compliance period, typically expressed as a calendar year.

$D_{RF,i}$ = Deficit carryover from compliance period i for renewable fuel, in RIN-gallons.

$D_{AB,i}$ = Deficit carryover from compliance period i for advanced biofuel, in RIN-gallons.

(c) *Exceeding the D6 RIN holding thresholds.*

(1) *Primary threshold test.* A non-obligated party or corporate affiliate group that does not contain an obligated party and that has a holdings-to-market percentage greater than 3.00 percent for any calendar day in a compliance period, as determined under paragraph (b)(1) of this section, has exceeded the primary threshold.

(2) *Secondary threshold test.* Any party or corporate affiliate group required to calculate a holdings-to-obligation percentage under paragraph (a)(3) of this section and that has a holdings-to-obligation percentage greater than 130.00 percent for any calendar day in a compliance period, as determined under paragraph (b)(2) of this section, has exceeded the secondary threshold.

(d) *Alternative gasoline and diesel production volume allowance.* Parties that must calculate the secondary threshold under paragraph (b)(2) of this section may use alternative gasoline and diesel production volumes if all the following requirements are met:

(1) The party must have a reasonable basis for using the alternative production numbers (e.g., selling or acquiring a refinery or a shutdown of a refinery).

(2) When substituting the alternative production volume for the conventional RVO volume, the party must use actual production numbers for any completed quarter in the compliance period and extrapolated production numbers for any future quarters.

(3) The party must meet the applicable recordkeeping requirements of §80.1454.

(4) The party must retain documentation of the reasonable basis and the calculations used and must provide these to the auditor conducting the attest engagement under §80.1464.

(e) *Exemption from aggregation requirements.*

(1) A party may claim exemption from the requirement to aggregate D6 RIN holdings for any affiliate where one or more of the following apply:

(i) There is an absence of common trading-level control and information sharing with the affiliate.

(ii) The sharing of information regarding aggregation with the affiliate could lead either party to violate state or Federal law, or the law of a foreign jurisdiction.

(iii) The affiliate is exempt from the regulations regarding commodities and securities exchanges under 17 CFR 150.4(b)(7).

(2) A party must retain detailed, explanatory documentation supporting its exemption and must provide this documentation to the attest auditor under §80.1464, and to EPA upon request. Such records include, but are not limited to, the following:

(i) Documents that reflect that the parties do not have knowledge of the trading decisions of the other.

(ii) Documents that demonstrate that there are developed and independent trading systems in place.

(iii) Documents that demonstrate that the parties have and enforce written procedures to preclude each from having knowledge of, gaining access to, or receiving data about, trades of the other.

(iv) Documents reflective of the risk management and other systems in place.

(v) Documents that support an exemption under 17 CFR 150.4(b)(7).

(vi) Any other documents that support the applicability of the exemption.

7. Section 80.1451 is amended by:

a. Revising paragraph (c)(2) introductory text;

d. Redesignating paragraphs (c)(2)(i) through (xviii) as paragraphs (c)(2)(i)(A) through (R); and

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e. Adding new paragraphs (c)(2)(i) introductory text and (c)(2)(ii).

The revision and additions read as follows:

§80.1451 What are the reporting requirements under the RFS program?

* * * * *

(c) * * *

(2) RIN activity reports must be submitted to EPA according to the schedule specified in paragraph (f)(2) of this section. Each report must summarize RIN activities for the reporting period, separately for RINs separated from a renewable fuel volume and RINs assigned to a renewable fuel volume.

(i) For compliance periods ending on or before December 31, 2019, each report must include all of the following information:

* * * * *

(ii) For compliance periods starting on or after January 1, 2020, each report must include all of the following information:

(A) The submitting party's name.

(B) The submitting party's EPA-issued company identification number.

(C) Primary registration designation or compliance level for compliance year (e.g., "Aggregated Refiner," "Exporter," "Renewable Fuel Producer," "RIN Owner Only," etc.).

(D) All of the following information:

(*1*) The number of current-year RINs owned at the start of the quarter.

(*2*) The number of prior-year RINs owned at the start of the quarter.

(*3*) The total current-year RINs purchased.

(*4*) The total prior-year RINs purchased.

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(*5*) The total current-year RINs sold.

(*6*) The total prior-year RINs sold.

(*7*) The total current-year RINs retired.

(*8*) The total current-year RINs retired that are invalid as defined in § 80.1431(a).

(*9*) The total prior-year RINs retired.

(*10*) The total prior-year RINs retired that are invalid as defined in § 80.1431(a).

(*11*) The number of current-year RINs owned at the end of the quarter.

(*12*) The number of prior-year RINs owned at the end of the quarter.

(*13*) The number of RINs generated.

(*14*) The volume of renewable fuel (in gallons) owned at the end of the quarter.

(E)(*1*) Indicate if the submitting party or the submitting party's corporate affiliate group exceeded the primary threshold for any day in the quarter under §80.1435(c)(1). If the submitting party is in an affiliate group that does not contain an obligated party, and the affiliate group has exceeded the primary threshold, then EPA may publish the name and EPA-issued company identification number of the submitting party.

(*2*) Indicate if the submitting party or the submitting party's corporate affiliate group exceeded the secondary threshold for any day in the quarter under §80.1435(c)(2). If the submitting party is an obligated party and has exceeded the secondary threshold or is in a corporate affiliate group containing an obligated party that has exceeded the secondary threshold, then EPA may publish the name and EPA-issued company identification number of the submitting party.

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(F) A list of all corporate and contractual affiliates during the reporting period. For each affiliate, include the identification information (including the EPA company ID number, if registered) and the affiliate type.

(G) The RVO used to calculate D6 RIN threshold, if alternative gasoline and diesel production volumes were used under §80.1435(d).

(H) A list of contractual affiliates that had a contract with the party that did not result in transfer of RINs to the party during the reporting period.

(I) Any additional information that the Administrator may require.

* * * * *

8. Section 80.1452 is amended by:

a. Revising paragraph (c)(12); and

b. Adding paragraph (c)(15).

The revision and addition read as follows:

§80.1452 What are the requirements related to the EPA Moderated Transaction System (EMTS)?

* * * * *

(c) * * *

(12)(i) For transactions through December 31, 2019, the per gallon RIN price or the per-gallon price of renewable fuel with RINs included.

(ii) For transactions on or after January 1, 2020:

(A) For RIN buy or sell transaction types including assigned RINs, the per-gallon RIN price or the per-gallon price of renewable fuel with RINs included.

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(B) For RIN buy or sell transaction types including separated RINs, the per-gallon RIN price.

* * * * *

(15) For buy or sell transactions of separated RINs on or after January 1, 2020, the mechanism used to purchase the RINs (e.g., spot market or fulfilling a term contract).

* * * * *

9. Section 80.1454 is amended by adding paragraphs (i)(1) and (2) and (u) and (v) to read as follows:

§80.1454 What are the recordkeeping requirements under the RFS program?

* * * * *

(i) * * *

(1) For buy or sell transactions of separated RINs, parties must retain records substantiating the price reported to EPA under §80.1452.

(2) For buy or sell transactions of separated RINs on or after January 1, 2020, parties must retain records demonstrating the transaction mechanism (e.g., spot market or fulfilling a term contract).

* * * * *

(u) *Requirements for recordkeeping of RIN holdings for all parties transacting or owning RINs.*

(1) Starting January 1, 2020, parties must retain records related to end-of-day separated D6 RIN holdings, and any associated calculations recorded in order to meet the RIN holdings requirements described in §80.1435 for a period of at least five years. Such records must include

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information related to any corporate affiliates, contractual affiliates, and their RIN holdings and calculations.

(2) Parties must retain records related to their reports to EPA regarding threshold compliance under §§80.1435 and 80.1451 for a period of at least five years.

(v) *Requirements for recordkeeping of contractual and corporate affiliates.*

(1) Parties must retain records including, but not limited to, the name, address, business location, contact information, and description of relationship, for each RIN-holding corporate affiliate for a period of at least five years. For the corporate affiliate group, a relational diagram.

(2) Parties must retain records including, but not limited to, the name, address, business location, contact information, and contract or other agreement for each contractual affiliate for a period of at least five years.

(3) If a party claims an exemption from aggregation under §80.1435(e), the party must retain all records in support of the exemption for a period of at least five years and must provide these records to the attest auditor under §80.1464, and to EPA upon request.

10. Section 80.1464 is amended by adding paragraphs (a)(4) through (6), (b)(5) through (7), and (c)(3) through (5) to read as follows:

§80.1464 What are the attest engagement requirements under the RFS program?

(a) * * *

(4) *RIN holdings.*

(i) Obtain and read copies of the RIN holdings calculations performed under §80.1435 for the party and any corporate affiliates and the applicable database, spreadsheet, or other documentation the party maintains.

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(ii) Select sample calculations in accordance with the guidelines in §80.127; compute and report as a finding the results of these calculations and verify that the results agree with the values reported to EPA.

(iii) Identify any date(s) where the aggregated calculation exceeded the RIN holding threshold(s) specified in §80.1435. Compute and state as a finding whether this information agrees with the party's reports (notification of threshold exceedance) to EPA.

(5) *Affiliates.* Review reports and records related to corporate and contractual affiliates and state whether this information agrees with the party's reports to EPA, and report as a finding any exceptions.

(6) *Exemption.* Review and confirm the existence of records supporting an exemption from aggregation claimed by the party under §80.1435(e), and report as a finding any exceptions.

(b) * * *

(5) *RIN holdings.*

(i) Obtain and read copies of the RIN holdings calculations performed under §80.1435 for the party and any corporate affiliates and the applicable database, spreadsheet, or other documentation the party maintains.

(ii) Select sample calculations in accordance with the guidelines in §80.127; compute and report as a finding the results of these calculations and verify that the results agree with the values reported to EPA.

(iii) Identify any date(s) where the aggregated calculation exceeded the RIN holding threshold(s) specified in §80.1435. Compute and state as a finding whether this information agrees with the party's reports (notification of threshold exceedance) to EPA.

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(6) *Affiliates*. Review reports and records related to corporate and contractual affiliates and state whether this information agrees with the party's reports to EPA, and report as a finding any exceptions.

(7) *Exemption*. Review and confirm the existence of records supporting an exemption from aggregation claimed by the party under §80.1435(e), and report as a finding any exceptions.

* * * * *

(c) * * *

(3) *RIN holdings*.

(i) Obtain and read copies of the RIN holdings calculations performed under §80.1435 for the party and any corporate affiliates and the applicable database, spreadsheet, or other documentation the party maintains.

(ii) Select sample calculations in accordance with the guidelines in §80.127; compute and report as a finding the results of these calculations and verify that the results agree with the values reported to EPA.

(iii) Identify any date(s) where the aggregated calculation exceeded the RIN holding threshold(s) specified in §80.1435. Compute and state as a finding whether this information agrees with the party's reports (notification of threshold exceedance) to EPA.

(4) *Affiliates*. Review reports and records related to corporate and contractual affiliates and state whether this information agrees with the party's reports to EPA, and report as a finding any exceptions.

(5) *Exemption*. Review and confirm the existence of records supporting an exemption from aggregation claimed by the party under §80.1435(e), and report as a finding any exceptions.

* * * * *

Subpart N—Additional Requirements for Gasoline-Ethanol Blends

11. Section 80.1503 is amended by:

a. Revising paragraph (a)(1)(vi)(B);

b. Removing paragraph (a)(1)(vi)(C);

c. Revising paragraph (b)(1)(vi)(B); and

d. Removing paragraphs (b)(1)(vi)(C) through (E).

The revisions read as follows:

§80.1503 What are the product transfer document requirements for gasoline-ethanol blends, gasolines, and conventional blendstocks for oxygenate blending subject to this subpart?

(a) * * *

(1) * * *

(vi) * * *

(B) The conspicuous statement that the gasoline being shipped contains ethanol and the percentage concentration of ethanol as described in §80.27(d)(3).

* * * * *

(b) * * *

(1) * * *

(vi) * * *

(B)(*1*) For gasoline containing less than 9 volume percent ethanol, the following statement: "EX—Contains up to X% ethanol. The RVP does not exceed [fill in appropriate value] psi." The term X refers to the maximum volume percent ethanol present in the gasoline.

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(*2*) The conspicuous statement that the gasoline being shipped contains ethanol and the percentage concentration of ethanol as described in §80.27(d)(3) may be used in lieu of the statement required under paragraph (b)(1)(vi)(B)(*1*) of this section.

* * * * *

§80.1504 What acts are prohibited under this subpart?

12. Section 80.1504 is amended by removing and reserving paragraphs (f) and (g).

ED_002687_00000433-00165

Message

From: Lyons, Troy [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=15E4881C95044AB49C6C35A0F5EEF67E-LYONS, TROY]
Sent: 2/8/2019 3:12:36 PM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Ex. 6 Personal Privacy (PP) /o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6f061a85b2e14828934c1a85cc4d5122 Administrator / Ex. 6 Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Molina, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c1d68da1a4587866e1850f22a6ae5-Molina, Mic]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]
Subject: Fwd: Letter to Acting Administrator Wheeler
Attachments: 20190208 AFPM and API RFS Letter to Wheeler FINAL.pdf; ATT00001.htm

Sent from my iPhone

Begin forwarded message:

From: Will Hupman <HupmanW@api.org>
Date: February 8, 2019 at 9:42:20 AM EST
To: 'Troy Lyons' <lyons.troy@epa.gov>
Cc: Bill Koetzle <KoetzleB@api.org>
Subject: Letter to Acting Administrator Wheeler

Hi Troy – Please find attached a letter from API and AFPM to Acting Administrator Wheeler. Please let me know if you'd like to chat further on this. I'm happy to give you a call. Thank you, sir. Will

Will Hupman
Director – Federal Relations | American Petroleum Institute
office Ex. 6 | cell Ex. 6 | hupmanw@api.org

Message

From: Jackson, Ryan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=38BC8E18791A47D88A279DB2FEC8BD60-JACKSON, RY]
Sent: 2/21/2019 11:36:02 AM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]; Abboud, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6f5af791a1842f1adcc088cbf9ed3ce-Abboud, Mic]; Block, Molly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=60d0c681a16441a0b4fa16aa2dd4b9c5-Block, Moll]; McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]
Subject: Fwd: Morning Energy: Docs reveal how Wehrum's former firm lobbied regs — California fuel economy talks end — On the FERC agenda

Deliberative Process / Ex. 5

Ryan Jackson
Chief of Staff
U.S. EPA
Personal Phone / Ex. 6

Begin forwarded message:

From: "POLITICO Pro Energy" <politicoemail@politicopro.com>
Date: February 21, 2019 at 5:47:51 AM EST
To: <jackson.ryan@epa.gov>
Subject: Morning Energy: Docs reveal how Wehrum's former firm lobbied regs — California fuel economy talks end — On the FERC agenda
Reply-To: "POLITICO subscriptions" <reply-fe8e1379776d077e75-630326_HTML-786581600-1376319-0@politicoemail.com>

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MORNINGENERGY

02/21/2019 05:45 AM EDT

By KELSEY TAMBORRINO (ktamborrino@politico.com; @kelseytam)

With help from Darius Dixon

QUICK FIX

— **Documents obtained by POLITICO reveal previously undisclosed details** into EPA air chie
firm as it coordinated with some of the largest coal-burning power companies to fight Obama-era

— **Negotiations over fuel economy standards** have officially ended — if they ever really started
Trump administration, marking a potential stumbling block for EPA nominee Andrew Wheeler as
with its proposal.

— **FERC could quickly run through the agenda today** at its monthly meeting, which has been d
inclement weather.

GOOD MORNING! IT'S THURSDAY. I'm your host, Kelsey Tamborrino. Entergy's Rob Hall notch
the first to name John Gorrie of Florida, who is credited with inventing modern refrigeration and a
with a statue in the Capitol. For today: Once dubbed Minnesota's "boy governor," name the candid
times between 1948 and 1992. Send your tips, energy gossip and comments to ktamborrino@polit
@kelseytam, @Morning_Energy and @POLITICOPro.

DRIVING THE DAY

HOW WEHRUM'S FORMER FIRM LOBBIED OBAMA REGS: The firm that formerly employed I with more than two dozen companies and umbrella groups of utilities to fight the Obama adminis Zack Colman and Alex Guillén report.

The twenty-five power companies and six industry trade groups agreed to pay the firm, then of $8.2 million in 2017 alone, according to an internal summary prepared in June of that year — le Trump nominated Wehrum.

Known as the Utility Air Regulatory Group, the secretive organization included some of the larg country, including Duke Energy, Southern Co. and AEP, which together contributed nearly one-th

Nothing in federal ethics rules prevents Wehrum from working on regulations at EPA that app industry he once represented, and he told POLITICO that he has stayed on the right side of the eth

"From the beginning and from well before I joined EPA I thought it was very important to und that would apply to me," Wehrum said. "The ethical rules do not prevent me from working on regu he added. Read more.

Join POLITICO Pro Canada's Alexander Panetta and Lauren Gardner for a breakfast discussio relations on Friday Feb. 22. The discussion will feature Canadian Premiers: the Honorable Doug F Blaine Higgs, New Brunswick; the Honorable Scott Moe, Saskatchewan; and Honorable Bob McLe event is hosted in partnership with Nelson Mullins and the Council of the Federation. Register for

AROUND THE AGENCIES

COUNTING CARB: Talks between California and the Trump administration over auto emissions r tangible progress, as EPA and the Transportation Department near a self-imposed March deadline fuel economy standards for passenger vehicles.

The Trump administration has decided to end the talks, Reuters reports — a sentiment Califor Chairwoman Mary Nichols echoed to POLITICO.

Nichols said the talks had been moribund for some time, despite repeated meetings with feder California's Debra Kahn reports . "They never started, so it's easy to end," Nichols said.

"The administration broke off communications before Christmas and never responded to our s or offered any compromise proposal at all," CARB spokesman Stanley Young said in an email. "We were never serious about negotiating, and their public comments about California since then seem

The end of the talks could factor into Wheeler's nomination for EPA administrator, Senate En ranking member Tom Carper said Wednesday. "After Mr. Wheeler's emphatic insistence at his cor wants a 50-state deal more than I do,' the end of these talks send a clear message that, sadly, Mr. V his word," he said.

To the courts: EPA's move to finalize its rolled-back standards means it is almost certainly heade Environmental Defense Fund senior attorney Martha Roberts said Wednesday the group would "k opinion and the court of law, to protect our Clean Car Standards for all Americans."

RUNDOWN OF TODAY'S FERC MEETING: Today's post-lunch edition of the monthly FERC mee are four rulemakings and certificates for two small natural gas projects. One of the rulemakings se agency's changes to regulations that raised the dollar-figure threshold for what triggers a FERC rev public utilities.

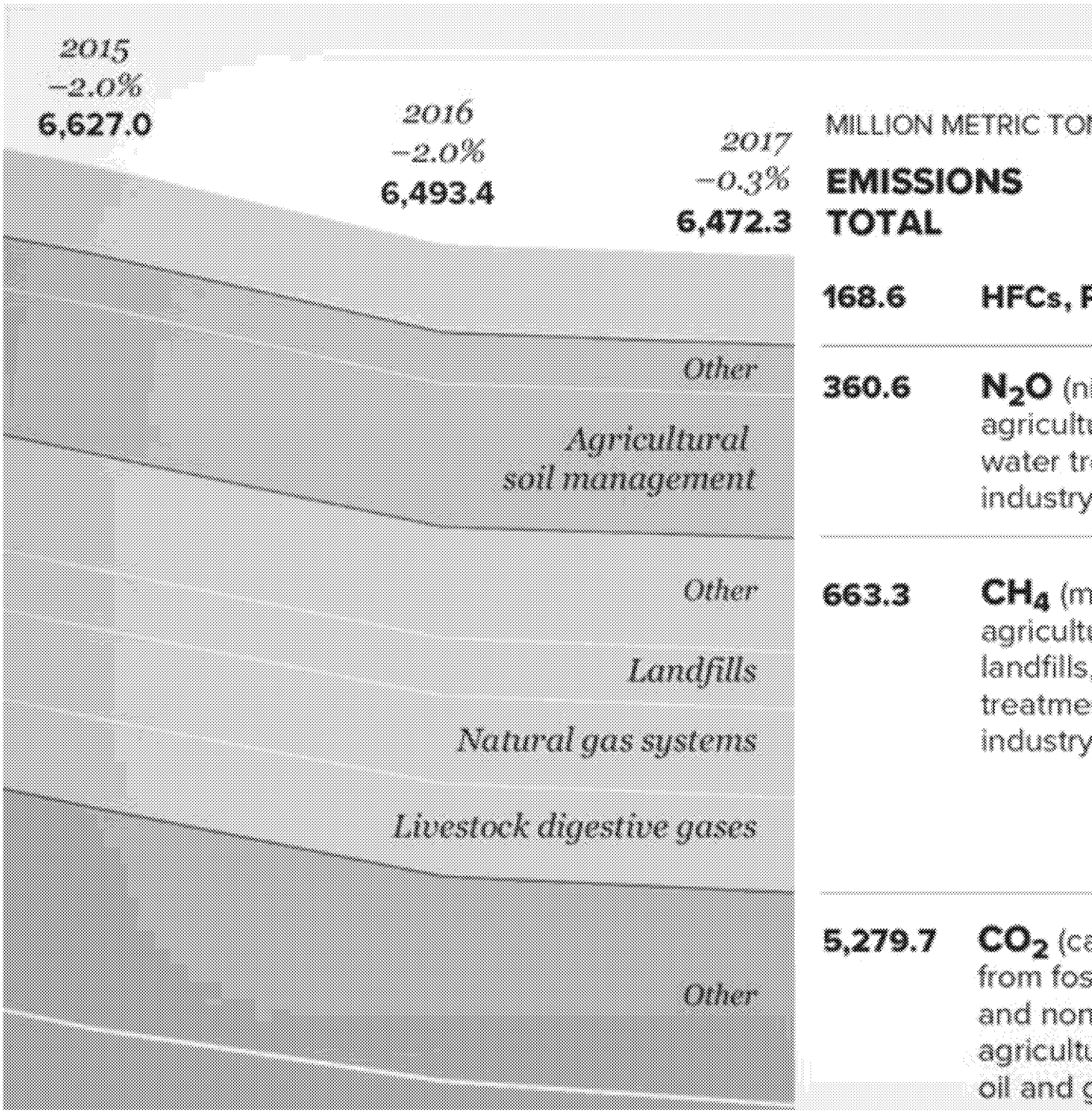
The process was kicked off last year when President Donald Trump signed H.R. 1109 to amend September. Another rulemaking appears to be a response to rehearing and clarification requests b last year where regulators instituted new interconnection procedures for generators producing mo

POTUS FILES: Acting Interior Secretary David Bernhardt is expected to have lunch with the presi

DRAFT PEBBLE STUDY DRAWS GREENS' IRE: Greens pounced Wednesday on a draft environ the Army Corps of Engineers for the proposed Pebble Mine in Alaska, calling out the agency for ru Pros.

FORMER EPA OFFICIAL LAUNCHES PUSH AGAINST GND: Mandy Gunasekara, the former E agency to start her own nonprofit to advocate on behalf of the Trump administration, has launche Deal. Gunasekara shared a video Wednesday that compared the proposal to "Soviet takeovers of th petition to "defeat" the Green New Deal.

EMISSIONS STATEMENT: New data released by EPA show U.S. carbon dioxide emissions from p percent in 2018 from 2017, while emissions of nitrogen oxides and sulfur dioxide extended their de



View the full DataPoint graphic here. Want to add DataPoint to your Pro account? Learn more.

See it: The slight increase in CO2 emissions follows a separate draft report released by EPA last w
gas emissions slid 0.3 percent between 2016 and 2017. Data from that report is broken down by Pr
here.

ON THE HILL

USE IT OR LOSE IT: Senate EPW Chairman John Barrasso scheduled a hearing for next week on hearing will examine the "USE IT" bill, S. 383 (116), as well as the state of technologies that reduce

The bill was reintroduced earlier this month by Barrasso and would support carbon dioxide util research, as well as collaboration of carbon capture, utilization, and sequestration facilities and ca hearing is set for Feb. 27 at 10 a.m.

E&C TO HOLD JOBS HEARING: The House Energy and Commerce Energy Subcommittee will h investing in a diverse clean energy workforce and the "Blue Collar to Green Collar Jobs Developme subcommittee Chairman Bobby Rush will introduce next week.

"As the energy sector changes to address climate change, it's critically important that we not o infrastructure, but also a diverse workforce that can build it," Rush said in a statement announcin

ANOTHER ONE: House Transportation Chairman Peter DeFazio announced another hearing for role the transportation sector plays in global warming and explore a "dual track approach of mitig

MOVERS AND SHAKERS

— The National Wildlife Federation named **Mustafa Santiago Ali** as its vice president for environ community revitalization. Ali recently was senior vice president of climate, environmental justice the Hip Hop Caucus and was previously a senior adviser at the EPA, leading the Office of Environ

THE GRID

— "Whitmer's new environmental order leaves 'polluter panels' in place — for now," Detroit Free

— "Denmark's Inger Andersen elected U.N. environment chief," Associated Press.

— "Jay Inslee, potential 2020 contender, on climate: 'We need to blow the bugle,'" The Guardian.

— "Trump agency proposes overhaul of biofuel credit trading," Bloomberg.

— "Nazi sub is being destroyed by bacteria due to Deepwater Horizon spill," New Scientist.

HAPPENING TODAY

9 a.m. — Duke in D.C. holds a briefing on "Venezuela in Crisis and the American Response," 122 C

9:30 a.m. — The Woodrow Wilson Center forum on "Will China Be First to Completely Abandon C
Pennsylvania Ave. NW.

9:30 a.m. — Center for Strategic & International Studies discussion on "Oil Market Update: Search
Island Ave. NW.

4 p.m. — The USAID Adaptation, Thought Leadership And Assessments Project holds an Adaptati
"Supporting Planning and Financing for Climate Adaptation," 1717 H St. NW.

6:30 p.m. — Physicians for Social Responsibility discussion on aspects of the Green New Deal, 202

THAT'S ALL FOR ME!

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POLITICOPRO

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Message

From: Stachowiak, Robert [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=2710013BD33A44AB823C8E6D9B94275A-RSTACHOW]
Sent: 4/5/2019 9:37:53 PM
To: Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Vizian, Donna [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=cb2401bf8d4f441dbf27f21e122be2c5-Vizian, Donna]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Beck, Nancy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=168ecb5184ac44de95a913297f353745-Beck, Nancy]; Bodine, Susan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8c2cc6086fcc44c3be6b5d32b262d983-Bodine, Sus]; Traylor, Patrick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6d06c6b766c4b4b8bfdf6b0fea4b998-Traylor, Pa]; Breen, Barry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1b44bce1a71e4a95acaf82f2fbc858b0-BBREEN]; Ross, David P [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=119cd8b52dd14305a84863124ad6d8a6-Ross, David]; Forsgren, Lee [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a055d7329d5b470fbaa9920ce1b68a7d-Forsgren, D]; Darwin, Henry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ae8e9d24eeb4132b25982e358efbd9d-Darwin, Hen]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Cook, Steven [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=394f5dede6184bc083cf9390e49a192c-Cook, Steve]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; White, Elizabeth [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f8af641a6306479c9026142ef3b02bd7-White, Eliz]; Baptist, Erik [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=10fc1b085ee14c6cb61db378356a1eb9-Baptist, Er]; Molina, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c1d68da1a4587866e1850f22a6ae5-Molina, Mic]; McIntosh, Chad [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e328de48699c4747ad3a421e3aa5e850-McIntosh, W]; Wright, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=11616a3db06f4eceb13ea26c7e6dc1f0-Wright, Pet]; Wildeman, Anna [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=05dd0af69bfa40429e438b7646502b99-Wildeman, A]
CC: Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]; Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; Packard, Elise [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6d4ad4c6abb24f54a2c8c16fa17ba0fd-Packard, El]; Brazauskas, Joseph [/o=ExchangeLabs/ou=Exchange Administrative Group

(FYDIBOHF23SPDLT)/cn=Recipients/cn=babf7b77aeec4ffeaad446bb35e05b24-Brazauskas,]; Cody, Meredith [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0bd34b58a6a0499f8dd2ec17f8ca71bd-Cody, Mered]; Siciliano, CarolAnn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a0e84b7f6ddd4d92b99b2dba90aa86b1-CSICILIA]; Lis-Coghlan, Kamila [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=026c574638c847468e8a8d025c85a13c-Lis-Coghlan]; Willey, Katharine [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b62280ca8b184930814f27e4904cd17b-Willey, Kat]

Subject: Monthly Lists of Negotiated or Court-Ordered Deadlines & Cases Where Negotiating a Resolution is Ongoing or Possible

Attachments: Monthly Consent Decree and Other Litigation-Based Obligations Table 04.05.19.docx; Cases and NOIs Where Discussions with Litigants are Ongoing or Possible 04.05.19.docx

Good afternoon,

Attached are the two charts that OGC updates each month.

1) Agency obligations contained in consent decrees, settlement agreements, and court orders

2) Current cases where the agency is discussing or has the potential to discuss a negotiated resolution of the matter with the litigants

- [redacted]

If there are questions about the list or specific deadlines or cases, please do not hesitate to ask.

With regards,

Robert Stachowiak
U.S. Environmental Protection Agency
Acting Associate Deputy General Counsel
Office of General Counsel (2310A)
1200 Pennsylvania Ave., N.W.
Washington, D.C. 20460
(202) 564-0580

Message

From: Abboud, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B6F5AF791A1842F1ADCC088CBF9ED3CE-ABBOUD, MIC]
Sent: 2/20/2019 11:45:03 PM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Block, Molly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=60d0c681a16441a0b4fa16aa2dd4b9c5-Block, Moll]; Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]; Beach, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6b124299bb6f46a39aa5d84519f25d5d-Beach, Chri]; McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]
Subject: Fwd: Exclusive: How a top EPA regulator's law firm profited from the fight to roll back air rule

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Begin forwarded message:

> **From:** "POLITICO Pro Energy" <politicoemail@politicopro.com>
> **Date:** February 20, 2019 at 6:42:33 PM EST
> **To:** <abboud.michael@epa.gov>
> **Subject: Exclusive: How a top EPA regulator's law firm profited from the fight to roll back air rules**
> **Reply-To:** "POLITICO subscriptions" <reply-fe7e1379776c0d787c-1158573_HTML-820854487-1376319-0@politicoemail.com>
>
> **Exclusive: How a top EPA regulator's law firm profited from the fight to roll back air rules**
>
> By Zack Colman and Alex Guillén
>
> 02/20/2019 06:40 PM EDT
>
> The nation's biggest coal-burning power companies paid a top lobbying firm millions of dollars to fight a wide range of Obama-era environmental rules, documents obtained by POLITICO reveal — shortly before one of the firm's partners became President Donald Trump's top air pollution regulator.
>
> Now that ex-partner, Bill Wehrum, is aggressively working to undo many of those same regulations at the EPA, where he is an assistant administrator in charge of issues including climate change, smog and power plants' mercury pollution.
>
> Wehrum's past role as a utility lobbyist is well-known, but the documents reveal never-before-disclosed details of how extensively his old firm, formerly called Hunton & Williams, worked to coordinate the power industry's strategy against the Obama administration's regulations. Twenty-five power companies and six industry trade groups agreed to pay the firm a total of $8.2 million

in 2017 alone, according to an internal summary prepared in June of that year — less than three months before Trump tapped Wehrum for his EPA post.

POLITICO obtained 26 pages of briefing materials distributed to members of an umbrella group of utilities Wehrum represented while at the firm. Known as the Utility Air Regulatory Group, the secretive organization included some of the largest coal-burning utilities in the country. The materials were marked "CONFIDENTIAL ATTORNEY-CLIENT COMMUNICATION" and outlined goals for a meeting of the group's policy committee.

Topping the list of funders were Duke Energy, Southern Co. and AEP, which together contributed nearly one-third of the money.

Wehrum has said he won't work on lawsuits former clients are involved in, but nothing in federal ethics rules prevents him from working on regulations that apply to a broad sweep of actors in the industry he once represented. To that extent, it does not appear Wehrum has violated any laws, but it does expose holes in the ethics system.

"The scandal here is what is legal," said Kathleen Clark, a Washington University in St. Louis law professor and ethics expert. She said the documents show "industry group strategizing about how to change federal policy through the installation of friendly personnel as regulators — and then one of their own who was in the meeting, who was in the room where it happened, ended up being the key regulator."

Wehrum said Wednesday that he has stayed on the right side of the ethical line.

"From the beginning and from well before I joined EPA I thought it was very important to understand the ethical obligations that would apply to me," he said in an interview with POLITICO. He added, "The ethical rules do not prevent me from working on regulations of general applicability."

Wehrum spent 10 years as a partner at the firm, now called Hunton Andrews Kurth. His EPA biography notes that he was also head of the firm's "Administrative Law Group."

Wehrum convened his power plant industry clients on June 22 and 23, 2017, at his law firm's Washington, D.C., offices to lay out a road map for attacking the very policies he now oversees, the documents show. The roster of clients under the umbrella of the Utility Air Regulatory Group include some of the largest, most influential utility companies in the country. Wehrum told POLITICO he does not remember the two-day meeting, but a person familiar with the meeting and another who attended confirmed he was there.

Wehrum is certainly not the only person in Washington or the Trump administration to swing from lobbying to regulating. But the documents lay out an unusually clear picture of how Washington lobbyists steer a legal campaign for clients, keeping litigation churning while earning massive fees for their firms.

"I think the proximity of what he was doing in private sector advocacy then government work is a thing that distinguishes him from a lot of people and makes him vulnerable to criticism and questioning," said a former government ethics official.

By the time Trump had nominated Wehrum, he'd already made millions for and from Hunton — his financial disclosure listed a $2.1 million partnership share in his last year at the firm. That

form also lists the Utility Air Regulatory Group as one of 20 sources of his compensation surpassing $5,000, but only one UARG member — Salt River Project — is named individually.

The documents prepared for the group's June 2017 policy committee meeting laid out how much money Hunton & Williams was seeking for its work on behalf of the companies. It estimated an $8.8 million budget for 2018.

Once "the new leadership team at EPA is in place, if that team shows that it has the ability to address expeditiously many of the initiatives of greatest importance to UARG members — and if UARG wants to participate meaningfully in such initiatives — then UARG will likely need an overall year-2018 budget that is higher than this year's budget," it read.

A month after the meeting, word began to circulate that Wehrum was headed to EPA, and by September, Trump made the nomination official.

It was unclear how far Wehrum was in his negotiations with the administration at the time of the meeting — he told POLITICO he was first approached in "early 2017" about the possibility — but he already had access to high-level EPA officials.

Mandy Gunasekara, then a top EPA air official, attended the UARG meeting at Wehrum's request.

"We are interested in any Clean Air Act regulatory issue that you are willing and able to address," Wehrum wrote in an email to Gunasekara, according to separate documents obtained by the Sierra Club under the Freedom of Information Act. "Topics of interest include the Clean Power Plan, the Mercury and Air Toxics Standard, regional transport, regional haze, and NAAQS/NAAQS implementation. We are not asking you to address pending litigation on any of these issues. We are interested in discussing only possible future regulatory action."

A person who was at the meeting confirmed both Gunasekara and Wehrum were there.

Wehrum told POLITICO that while he continued to work for Hunton for most of 2017, he "billed typically just a few hours a year to UARG." He said he's stayed within ethical boundaries because rules don't prohibit him from working on regulations that apply to a broad suite of players and he has not met with UARG since joining the EPA.

Wehrum has previously said he would recuse himself from litigation matters that he previously participated in, but not policymaking, such as regulation. He represented UARG in court as late as March 2017, when he filed a lawsuit over an Obama administration rule boosting chemical safety and reporting requirements at industrial facilities.

"UARG is an entity. It's a legal entity," he said, explaining that his clients were "not the individual members" of UARG.

Wehrum recused himself for two years from decisions related to a Dominion Energy subsidiary, Duke and Salt River Project, but not any of the other UARG member companies, according to a September 2018 recusal statement to acting EPA Administrator Andrew Wheeler.

Wehrum has in the past tried to firewall his work on litigation and policy, suggesting he would recuse himself from matters in which Hunton has represented clients in lawsuits challenging Obama-era policies. But the newly obtained documents show how deeply Hunton was involved in the cradle-to-grave formation of policy through UARG. For example, the June 2017 briefing

materials cited "possible participation in rulemaking activity" among the services for which Hunton expected to bill the group's members.

Since he was confirmed by the Senate in November 2017, Wehrum has undertaken many of the policies UARG identified as top priorities.

For example, the June 2017 UARG document says the group will "coordinate member efforts and strategy regarding EPA review and potential reconsideration of" an Obama-era rule that justified major limits on mercury from power plant smokestacks by counting "co-benefits" from incidental reductions in other types of air pollution.

Then, last December, after Wehrum joined the agency, EPA proposed changing the rule to disregard the co-benefits, aligning itself with the position UARG has taken since at least 2016. (The agency also opened the door to revoking rule entirely — something that would benefit the dirtiest coal plants in the country — although it says it has no immediate plans to do so.)

Another area of focus UARG outlined in June 2017 was "potential administrative actions related to the New Source Review program," a reference to permits that coal plants have to receive before conducting major upgrades.

Wehrum included major changes to that program as part of EPA's new carbon rule for power plants. The proposal would waive the New Source Review requirements for coal plants installing efficiency technology because the permitting costs would make the upgrades "no longer viable," Wehrum told reporters last week. That change could allow coal plants to run more frequently, potentially increasing overall emissions even if the plant is more efficient.

And in a separate move last November, Wehrum revived a New Source Review rule issued in the final days of the George W. Bush administration but halted by the Obama administration. The project "aggregation" rule could help utilities avoid more stringent permitting requirements, and it is also listed as an action item on UARG's 2017 list.

The Edison Electric Institute, the main trade association for the nation's investor-owned utilities, foots most of the UARG bill, according to the newly obtained briefing materials. But UARG doesn't show up in any official documents — it has no tax identification number, no address, no incorporation filings. In lawsuits, UARG generally describes itself as a "not-for-profit" or "ad hoc" group of electricity generators without further describing its membership.

UARG's structure allows it to avoid a paper trail. Utilities are dues-paying "members" of the organization. Many of those members, though, are also part of EEI. Rather than collect directly from companies, the briefing materials show that Hunton bills EEI directly — thus avoiding involvement of any formal entity known as UARG. EEI's 990 filings with the IRS, which nonprofits file annually, show a more than $8 million "consulting" tab for Hunton dating back years, making up more than half of the trade organization's independent contractor services.

"EEI provides accounting services to groups such as UARG and participates in a number of coalitions covering a range of issues important to our members," EEI spokesperson Brian Reil said in a statement to POLITICO. "UARG provides a variety of services to its members, including regulatory, technical, and compliance advice and information. EEI does not participate in any votes on UARG policy matter decisions. EEI files our own comments on the issues that are important to our members and their customers."

The names of the UARG members are some of the biggest in the business, along with some of the largest consumers of coal.

The documents show that 25 companies that are EEI members — including AEP, Ameren, Dominion, DTE Energy Co., Duke, FirstEnergy Corp., NiSource, South Carolina Electric & Gas Co. and Southern Co. Services — accounted for $6.8 million in 2017 dues to UARG.

Organizations that have backed efforts to soften pollution and climate regulations account for the remaining $1.4 million in dues: American Coalition for Clean Coal Electricity, American Public Power Association, EEI, National Rural Electric Cooperative Association and the National Mining Association. The Tennessee Valley Authority also paid $462,967 in dues that year, according to the documents.

Wehrum thus can have a significant effect on keeping business flowing to his old firm through regulatory maneuvers that affect the power industry. Some companies have already questioned whether some of Wehrum's moves are necessary. Redoing the Mercury and Air Toxics Standards, a pollution rule that most utilities already have spent millions complying with, tops that list. UARG member Duke, for example, has publicly criticized EPA's decision to revisit that rule.

In an interview, Wehrum cited EPA's work on the mercury rule as one area where his policies have diverged from the wishes of some UARG members. "I'm not going to put words or thoughts into anybody's mouth," Wehrum said of UARG, but he added, "I know at least a lot of individual member companies wanted to go the other way."

Given that Hunton participates both in regulatory comment periods and litigation, Wehrum's old firm would be slated to be involved in every step of the policy process. The June 2017 UARG document lists specific budget allocations for various programs, such as climate change, pollution control technologies, hazardous air pollutants and regional air quality.

Wehrum told POLITICO he believes he's doing things by the book.

"I don't believe anybody has gotten special access because they're a friend of mine," he said.

To view online:
https://subscriber.politicopro.com/energy/article/2019/02/exclusive-how-a-top-epa-regulators-law-firm-profited-from-the-fight-to-roll-back-air-rules-1191258

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Message

From: Dominguez, Alexander [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=5CED433B4EF54171864ED98A36CB7A5F-DOMINGUEZ,]
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CC: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]
Subject: RE: OAR - Hearing Prep Follow-up (internal and predeliberative)
Attachments: External memo NCA4 scenarios framing_20150506.pdf; OAR-9 Ethylene Oxide updated 3.11.19 clean_tf cw.docx; OAR-1 2018 Fourth National Climate Assessment REV3.28.docx; OAR-2 Affordable Clean Energy Rule REV3.28docx.docx; OAR-6 CSAPR and Good Neighbor SIPs REV3.28docx.docx; OAR-8 Alaska Diesel Generators REV3.28.docx; OAR-9 Ethylene Oxide updated 3.11.19 clean_tf cw.docx; OAR-17 New Source Review final REV3.28.docx; OAR-21 Program Elimination - Reduce Risks from Indoor Air REV.docx; OAR-24 Regional Haze REV3.28.docx; OAR-25 RFS-2019 Standards REV3.23.docx; OAR-26 RFS-Biomass-Based Diesel REV.docx; OAR-30 RFS-Small Refinery Exemptions REVdocx.docx; OAR-32 CAA 126 REV.docx; OAR-33 Small Remote Incinerators - Alaska REV.docx; OAR-35 Fairbanks Particulate Matter-Targeted Airshed Grants REV.docx

Please see attached revisions to the fact sheets. For awareness, the first document (PDF) is the copy of the 2015 Obama memo for OAR-1.

Alex Dominguez
Policy Advisor to the Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
D: 202-564-3164
M: Ex. 6

From: Greaves, Holly
Sent: Thursday, March 28, 2019 2:49 PM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>; Woods, Clint <woods.clint@epa.gov>; Dominguez, Alexander <dominguez.alexander@epa.gov>
Subject: OAR - Hearing Prep Follow-up (internal and predeliberative)

Bill/Clint/Alex –

The Administrator is requesting updates to fact sheets **no later than 9:00am Friday**. Please ensure your updates cover the following, and certainly anything I missed:

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Please be sure to send these to OCIR and OCFO once updated.

Holly W. Greaves
Chief Financial Officer
Office of the Chief Financial Officer
Environmental Protection Agency
(202) 564-1151

Message

From: Ringel, Aaron [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1654BDC951284A6D899A418A89FB0ABF-RINGEL, AAR]
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To: Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Greaves, Holly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=abcb6428b3df40a9a78b059a8ba59707-Greaves, Ho]; Dunn, Alexandra [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=426d0177eaab4001a5c85f051565997e-Dunn, Alexa]; Bodine, Susan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8c2cc6086fcc44c3be6b5d32b262d983-Bodine, Sus]; Darwin, Veronica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc98aaf2f15a466baede3dab0e27a35e-Darwin, Ver]; Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Molina, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c1d68da1a4587866e1850f22a6ae5-Molina, Mic]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Wright, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=11616a3db06f4eceb13ea26c7e6dc1f0-Wright, Pet]; Darwin, Henry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ae8e9d24eeb4132b25982e358efbd9d-Darwin, Hen]; Vizian, Donna [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=cb2401bf8d4f441dbf27f21e122be2c5-Vizian, Donna]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Ross, David P [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=119cd8b52dd14305a84863124ad6d8a6-Ross, David]; McIntosh, Chad [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e328de48699c4747ad3a421e3aa5e850-McIntosh, W]; Voyles, Travis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4c2b6c0d5ff046e7809f8cab2913bc48-Voyles, Tra]; Brazauskas, Joseph [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=babf7b77aeec4ffeaad446bb35e05b24-Brazauskas,]
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Subject: Program Office FY20 Budget Hearing Fact Sheets

Attachments: 03-25-2019 - TOC Program Fact Sheets - Budget Hearings .docx; Program Office Fact Sheets.zip

Importance: High

All,

Attached are the completed budget hearing fact sheets that have been provided to the Administrator for review prior to his briefings with individual program offices this week and next Monday. Each office should be prepared to brief AW on these sheets during their assigned time.

Please let us know if you have any questions regarding these docs and we look forward to working with everyone as AW has questions or edits that he would like made prior to, and after, the briefing.

Best,
Aaron

Aaron E. Ringel
Deputy Associate Administrator
Office of Congressional & Intergovernmental Relations
U.S. Environmental Protection Agency

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Message

From: Schiermeyer, Corry [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B0332276A9784253A5A78F39ECCF1F29-SCHIERMEYER]
Sent: 5/2/2019 1:58:27 PM
To: Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]
CC: Abboud, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6f5af791a1842f1adcc088cbf9ed3ce-Abboud, Mic]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Brazauskas, Joseph [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=babf7b77aeec4ffeaad446bb35e05b24-Brazauskas,]; Voyles, Travis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4c2b6c0d5ff046e7809f8cab2913bc48-Voyles, Tra]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Beach, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6b124299bb6f46a39aa5d84519f25d5d-Beach, Chri]; Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]
Subject: Re: Wehrum/Air Forum comments

I'm good

Sent from my iPhone

On May 2, 2019, at 3:43 PM, Harlow, David <harlow.david@epa.gov> wrote:

> Michael,
>
> I'm good with that. Thanks.
>
> **David S. Harlow**
> **Senior Counsel**
> **Immediate Office of the Assistant Administrator**
> **Office of Air and Radiation, USEPA**
> **WJC-N Room 5409K**
> **1200 Pennsylvania Avenue NW**
> **Washington, DC 20460**
> **202-564-1233**
> Harlow.David@epa.gov
>
> ---
>
> **From:** Abboud, Michael
> **Sent:** Thursday, May 2, 2019 9:36 AM
> **To:** Harlow, David <harlow.david@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>

Cc: Brazauskas, Joseph <brazauskas.joseph@epa.gov>; Voyles, Travis <Voyles.Travis@epa.gov>; Schwab, Justin <Schwab.Justin@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Beach, Christopher <beach.christopher@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Konkus, John <konkus.john@epa.gov>; McFaul, Jessica <mcfaul.jessica@epa.gov>; Schiermeyer, Corry <schiermeyer.corry@epa.gov>
Subject: FW: Wehrum/Air Forum comments

Deliberative Process / Ex. 5

From: Alex Guillen <aguillen@politico.com>
Sent: Wednesday, May 1, 2019 4:13 PM
To: Press <Press@epa.gov>
Subject: Wehrum/Air Forum comments

Good afternoon,

I'm writing about a discovery by Sens. Tom Carper and Sheldon Whitehouse that part of the December 2017 NSR memo contains a passage very close to language submitted to EPA through a public comment process months earlier by the Air Permitting Forum. The Forum, like UARG, is run by attorneys at Hunton, Bill Wehrum's prior firm. I have specific questions below and would welcome any other comment from EPA. My deadline is **5 p.m. on Thursday, May 2**.

Here are the passages in question. I've attached the full documents as well.

From the December 2017 Pruitt memo: "Because increased emissions may be caused by multiple factors, the **EPA has recognized that the source must exercise judgement to exclude increases for which the project is not the 'predominant cause.'**"

From the May 2017 Air Permitting Forum comments: "While historically **EPA has recognized that a source must exercise judgment to exclude increases for which the project is not the 'predominant cause,'** more recent EPA actions reflect the view that all emission increases are presumed to be caused by the change."

My questions:

Did Wehrum ever work for the Air Permitting Forum or any of its member companies while at Hunton?

Did he review the Forum's May 2017 regulatory comments to EPA while at Hunton?

Did Wehrum review the part of the December 2017 DTE memo discussing the exclusion issue (contained in the third paragraph on page 7)? If so, was he aware the language was virtually identical to that submitted by the Forum? (That part of the memo does not directly reference DTE, and EPA has said Wehrum consulted on the non-DTE portions of the memo.)

The memo-writing process took several months. When did EPA add the sentence in question to the memo? Did EPA purposely adopt the Forum's language? If so, why did the agency decide not to cite the source of the passage?

Did David Harlow ever work for the Forum at Hunton? Was he ever involved with the Forum's May 2017 regulatory comment? Did he review that portion of the December 2017 DTE memo, or any portion of the memo at all?

Thank you,

Alex Guillen | Energy Reporter | **POLITICO**PRO
1000 Wilson Boulevard, 8th Floor | Arlington, VA 22209
Phone: Ex. 6
Email: aguillen@politico.com | Twitter: @alexcguillen | Website: www.POLITICOPro.com

Appointment

From: Ex. 6 Personal Privacy (PP) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=83F9AE79D99D4661AA37D687409C1993-Ex. 6 Personal Privacy (PP)
Sent: 6/14/2019 7:10:33 PM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]

Subject: Canceled: Meeting with American Petroleum Institute
Attachments: EPA Meeting Request Form - Administrator Wheeler.docx
Location: Administrator's office

Start: 7/11/2019 2:30:00 PM
End: 7/11/2019 3:00:00 PM
Show Time As: Free

Importance: High

Message

From: Hewitt, James [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=41B19DD598D340BB8032923D902D4BD1-HEWITT, JAM]
Sent: 2/20/2019 6:16:26 PM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]
CC: Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]
Subject: FW: Urgent - questions re: Bill Wehrum

Importance: High

Bill, apologies that we need to go through this again. Are you able to jump on the phone with me to discuss as soon as possible? This reporter has a tight deadline and I need to go over a few specifics relating to Zack's questions.

Personal Phone / Ex. 6

From: Zack Colman <zcolman@politico.com>
Sent: Wednesday, February 20, 2019 12:50 PM
To: Hewitt, James <hewitt.james@epa.gov>
Cc: Konkus, John <konkus.john@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>; Block, Molly <block.molly@epa.gov>; Press <Press@epa.gov>
Subject: Re: Urgent - questions re: Bill Wehrum

3p ET

Get Outlook for iOS

From: Hewitt, James <hewitt.james@epa.gov>
Sent: Wednesday, February 20, 2019 12:45:17 PM
To: Zack Colman
Cc: Konkus, John; Abboud, Michael; Block, Molly; Press
Subject: Re: Urgent - questions re: Bill Wehrum

Zack, what's your hard deadline on this?

Sent from my iPhone

On Feb 20, 2019, at 12:34 PM, Zack Colman <zcolman@politico.com> wrote:

> Hi all,
>
> Hope you're doing well. I'm doing a story that's running this afternoon on Bill Wehrum – it would be helpful if you could answer these questions for me in the next couple hours. Please call me with any questions (248.563.9744) or you can email me as well. Happy to talk with Bill, too, if he's available.
>
> 1. How did Bill Wehrum describe his duties at Hunton & Williams with respect to his work on behalf of Utility Air Regulatory Group (UARG)?
> 2. Has Wehrum listed the members of UARG to the agency, and is the agency aware of UARG's membership?

3. How has Wehrum demonstrated the distinction between working on regulatory matters that pertain to UARG and recusing himself from litigation involving UARG?
4. Is it appropriate for Wehrum to implement the policy priorities of his recent clients?
5. Does EPA consider the membership of UARG to be "covered parties"? Why or why not?
6. Did Wehrum take meetings at EPA while at Hunton during the Trump administration? When? When was most recent? And on behalf of which clients?

Thanks,
-Zack

Zack Colman
POLITICO : energy & environment reporter
cell: Ex. 6
twitter: @zcolman

Message

From: Johnson, Laura-S [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=DEA46EDADAA04F2C847D3245F8F5847C-LJOHNS06]
Sent: 3/12/2019 7:45:42 PM
To: Wheeler, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=17a1669ef5b54fba8cb457845308787e-Wheeler, An]; Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Shaw, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31ca1476a7674825a131cb2c0d6c88c8-BShaw03]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Bennett, Tate [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1fa92542f7ca4d01973b18b2f11b9141-Bennett, El]; White, Elizabeth [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f8af641a6306479c9026142ef3b02bd7-White, Eliz]; Bodine, Susan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8c2cc6086fcc44c3be6b5d32b262d983-Bodine, Sus]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Molina, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c1d68da1a4587866e1850f22a6ae5-Molina, Mic]; Darwin, Henry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ae8e9d24eeb4132b25982e358efbd9d-Darwin, Hen]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]
CC: Mroz, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=64b0c7f807df436a9b40ce52f7dec34c-Mroz, Jessi]; Burch, Julia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=27b0cd43b0404bab89aef0c8d08c165f-Burch, Julia]; Mylan, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=70798537ae234bdeb55b66364fb8f220-Mylan, Christopher]; Hengst, Benjamin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c414e2bf04a246bb987d88498eefff06-Hengst, Benjamin]; DeLuca, Isabel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0b021c30cbee4637a7c7ca683e5e044a-IDELUCA]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]; Pritchard, Eileen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a396601f910b4c528707d7d3bbeb197b-Epritch]; Herbolsheimer, Courtney [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90b4261f62504cfb88f57a669c8217d3-Herbolsheim]; Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group

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Subject: SIGNED: Modifications to E15

Attachments: Modifications to Fuel Regulations to Provide Flexibility for E15.pdf

Good afternoon.

Today, the Administrator signed a proposed rule titled *"Modifications to Fuel Regulations to Provide Flexibility for E15; Modifications to RFS RIN Market Regulations."* In today's action, EPA is proposing regulatory changes to allow gasoline blended with up to 15 percent ethanol (E15) to take advantage of the 1-psi Reid Vapor Pressure (RVP) waiver that currently applies to E10 during the summer months. EPA is also proposing regulatory changes to modify certain elements of the renewable identification number (RIN) compliance system under the Renewable Fuel Standard (RFS) program, in order to improve RIN market functioning.

Attached is the signed and dated proposed rule. For your convenience, please go to p. 151 for the Administrator's signature.

Please contact me if you have any questions regarding this email.

Sincerely,
Laura

Laura S. Johnson | U.S. Environmental Protection Agency
Special Assistant, Office of the Administrator | Cell Ex. 6
Office (202) 566-1273 | johnson.laura-s@epa.gov

Message

From: Konkus, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=555471B2BAA6419E8E141696F4577062-KONKUS, JOH]
Sent: 2/25/2019 12:57:18 PM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]
CC: McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]
Subject: Re: following up, regarding my story on Bill Wehrum

Yes I'm surprised she left that out. We will try and correct that this morning.

On Feb 25, 2019, at 7:44 AM, Wehrum, Bill <Wehrum.Bill@epa.gov> wrote:

> The article looks pretty fair. The one point I think needs to be sharpened is the comment that I reviewed the DTE memo before it was issued. She fails to note that the draft I reviewed was heavily redacted to take out any reference to DTE and the particulars of DTE's issue.
>
> _____
> Bill Wehrum
> Assistant Administrator
> Office of Air and Radiation
> U.S. Environmental Protection Agency
> (202) 564-7404
>
> **From:** Konkus, John
> **Sent:** Sunday, February 24, 2019 4:26 PM
> **To:** Wehrum, Bill <Wehrum.Bill@epa.gov>
> **Cc:** McFaul, Jessica <mcfaul.jessica@epa.gov>
> **Subject:** Fwd: following up, regarding my story on Bill Wehrum
>
> This gives us tomorrow to debunk anything we have to before it runs in print.
>
> Begin forwarded message:
>
> > **From:** "Eilperin, Juliet" <Juliet.Eilperin@washpost.com>
> > **Date:** February 24, 2019 at 4:07:33 PM EST
> > **To:** "Konkus, John" <konkus.john@epa.gov>
> > **Cc:** "McFaul, Jessica" <mcfaul.jessica@epa.gov>
> > **Subject: Re: following up, regarding my story on Bill Wehrum**
> >
> > Dear John and Jessica,
> > The story on Bill will post at 6 am tomorrow. And then it will run in print the next day.
> > Best,
> > Juliet
> >
> > On Feb 24, 2019, at 11:31 AM, Eilperin, Juliet <Juliet.Eilperin@washpost.com> wrote:

Yes, I'm sorry, Henry Darwin went. I don't think I need a statement, given that—I'm not going to mention Henry by name.

And I will just let you about the timing of the posting of the other story. Thanks, Juliet

---

From: Konkus, John <konkus.john@epa.gov>
Sent: Sunday, February 24, 2019 11:24 AM
To: Eilperin, Juliet <Juliet.Eilperin@washpost.com>
Cc: McFaul, Jessica <mcfaul.jessica@epa.gov>
Subject: Re: following up, regarding my story on Bill Wehrum

He was not at that meeting on Friday.

On Feb 23, 2019, at 7:51 PM, Eilperin, Juliet <Juliet.Eilperin@washpost.com> wrote:

> And just FYI, I think it will post around midday. But I will let you know if that changes.
>
> Incidentally, I am writing about the NSC meeting that took place Friday, which Acting Administrator Wheeler attended. Please don't share this with any other outlets, but the upshot of the meeting is that the WH will assemble a group of federal scientists to look at the climate science the government has produced. So if you'd like to comment on that, let me know. If not, I can just put down a no comment. Alternatively, the story should post tomorrow morning, and you could always send a comment after you see the initial piece. I wanted to mention it since I will say that the acting administrator attended the meeting.
>
> Best,
> Juliet
>
> On Feb 23, 2019, at 6:13 PM, Konkus, John <konkus.john@epa.gov> wrote:
>
>> One more reminder that the UARG meeting is governed by the Trump pledge because it was a meeting requested by former clients. The rules were clear at the time - Bill could take such meetings as long as the topic was a matter of general applicability and he complied with the 1 plus 4 rule.
>
>> The Hunton event was different because the invitation came from

Hunton and not a former client. And, the clear purpose was business development, which he obviously could not support.

On Feb 23, 2019, at 6:09 PM, Eilperin, Juliet <Juliet.Eilperin@washpost.com> wrote:

> Sounds good. Thanks. I imagine the story will post sometime tomorrow, but I'm not sure when. I will let you both know as soon as I've gotten a heads up. Juliet
>
> On Feb 23, 2019, at 5:56 PM, Konkus, John <konkus.john@epa.gov > wrote:
>
>> The paraphrase looks like the better way to go from our perspective. The point Bill was trying to make is that the utility group invited him, not Hunton. UARG and Hunton are not one and the same.

On Feb 23, 2019, at 4:33 PM, Eilperin, Juliet <Juliet.Eilperin@washpost.com> wrote:

And sorry, just to update you, I think either w

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Subject: RE: following up, regarding my story

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From: Eilperin, Juliet **Sent:** Friday, February 22, 2019 5:34

PM
To: 'McFaul, Jessica' <mcfaul.jessica@epa.gov>
Cc: Konku

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From: McFaul, Jessica <mcfaulj@epa.gov>
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Subject: Re: following up, regarding my story on Bill Wehrum

Standby!

Jessica McFaul Senior Advisor for Public Affairs 20

2-480-0447

On Feb 22, 2019, at 3:45 PM, Eilperin, Juliet <juli

et.Eilperin@washpost.com>wrote:

DearJessica,Thanksfor

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Eilperin@washpost.com>

Cc: Konkus, John<konkus.john@epa.

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1. **QUESTION:** Can I get the exact date of when Bill signed his se

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Sept. 2018.

RESPONSE: see attached

2. **QUESTION:** Bills aid tha

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Message

From: Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]
Sent: 2/28/2019 2:51:15 PM
To: Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]
CC: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]
Subject: FW: E15 RMR Draft NPRM for Review
Attachments: ajdrev-E15 RMR NPRM Snapshot 02_26_19.docx

Alex,

I took a quick look at your proposed revisions. They look good to me. Thanks.

David S. Harlow
Senior Counsel
Immediate Office of the Assistant Administrator
Office of Air and Radiation, USEPA
WJC-N Room 5409K
1200 Pennsylvania Avenue NW
Washington, DC 20460
202-564-1233
Harlow.David@epa.gov

From: Dominguez, Alexander
Sent: Thursday, February 28, 2019 9:32 AM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>; Woods, Clint <woods.clint@epa.gov>; Harlow, David <harlow.david@epa.gov>
Cc: Lewis, Josh <Lewis.Josh@epa.gov>
Subject: FW: E15 RMR Draft NPRM for Review

Bill and Clint

I have transposed my edits and suggested revisions to the most current draft of the NPRM (I have been provided) while making some cleanups.

Alex Dominguez
Policy Advisor to the Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
D: 202-564-3164
M: 202-578-5985

From: Schwab, Justin
Sent: Wednesday, February 27, 2019 3:34 PM
To: Dominguez, Alexander <dominguez.alexander@epa.gov>
Subject: FW: E15 RMR Draft NPRM for Review

From: Garfinkle, Stacey
Sent: Wednesday, February 27, 2019 9:58 AM
To: Schwab, Justin <schwab.justin@epa.gov>
Cc: Dubey, Susmita <dubey.susmita@epa.gov>
Subject: E15 RMR Draft NPRM for Review

Hi Justin,

Attached, please find the draft E15/RMR NPRM for your review and comment. Please note that this is the version as of COB yesterday, however, the team is still tweaking some of the language (particularly in the RMR sections).

Please let Susmita or me know if you have any questions or would like to discuss.

Very respectfully,

Stacey

Stacey Simone Garfinkle
Attorney-Advisor
Air and Radiation Law Office
Office of General Counsel
U.S. Environmental Protection Agency
(202) 564-3103 | garfinkle.stacey@epa.gov

Message

From: Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]
Sent: 1/23/2019 12:22:51 AM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]; Dunham, Sarah [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a9444681441e4521ad92ae7d42919223-SDUNHAM]; Tsirigotis, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c179f3ccb4fadb48e3ae85563f132-PTSIRIGO]; Grundler, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d3be58c2cc8545d88cf74f3896d4460f-Grundler, Christopher]; Edwards, Jonathan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3715bc4dfc3e4d6caf3af1bf2fc5ca77-JEdwar02]; Shoaff, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ac16fb09cf2c44adb34a7405dc331532-JShoaff]; Lubetsky, Jonathan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e125d09a658e48119789ccae5712b4a5-JLUBETSK]
Subject: Revised draft of answers to QFRs
Attachments: dshcwRLSO2019.01.22 - PROGRAM OFFICE DESIGNATED - ALL QFRs Wheeler 01.16.2019 cw2 5.07.docx

All,

Attached is the latest draft of the QFR responses. It is in the form of an RLSO that reflects all of the changes made to the document that Clint had circulated earlier today, incorporating those revisions made by Bill, Clint, Justin, and Sarah. We'll be adding responses to the RFS-related questions tomorrow.

David S. Harlow
Senior Counsel
Immediate Office of the Assistant Administrator
Office of Air and Radiation, USEPA
WJC-N Room 5409K
1200 Pennsylvania Avenue NW
Washington, DC 20460
202-564-1233
Harlow.David@epa.gov

Message

From: Hewitt, James [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=41B19DD598D340BB8032923D902D4BD1-HEWITT, JAM]
Sent: 5/29/2019 4:04:40 PM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]
Subject: FW: Wehrum ethics complaint - 11a deadline
Attachments: William Wehrum Complaint 29 MAY 2019.pdf

Bill, complaint attached.

From: Zack Colman [mailto:zcolman@politico.com]
Sent: Wednesday, May 29, 2019 7:26 AM
To: Press <Press@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Konkus, John <konkus.john@epa.gov>
Subject: Wehrum ethics complaint - 11a deadline

Hi all,

Hope you had a restful holiday weekend. Wanted to reach out about the attached ethics complaint against Bill Wehrum. Working with an 11am deadline.

1. Does EPA have comment about this complaint?
2. Wehrum told the Washington Post he was uncertain of what the Trump administration's ethics agreement and pledge allowed. Has he received clarity on this and does that clarity lead him to believe his December 2017 meeting at Hunton was proper?
3. On that December 2017 meeting – if UARG is a legal entity and the utility companies that Wehrum met with were also UARG members, then are they separate parties at that point in time, or are they all one entity (UARG)?
4. Does Wehrum still believe he was neither "personally or substantially" involved in the crafting of the Dec. 7, 2017 policy memo that affected a pending DTE Energy Supreme Court case?

Thank you,
-Zack

Zack Colman
POLITICO : energy & environment reporter
cell: Ex. 6
twitter: @zcolman

Message

From: Konkus, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=555471B2BAA6419E8E141696F4577062-KONKUS, JOH]
Sent: 2/23/2019 11:11:51 PM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]
CC: McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]
Subject: Re: following up, regarding my story on Bill Wehrum

Will do.

On Feb 23, 2019, at 6:04 PM, Wehrum, Bill <Wehrum.Bill@epa.gov> wrote:

> Remind her that the UARG meeting is governed by the Trump pledge because it was a meeting requested by former clients. The rules were clear at the time - I could take such meetings as long as the topic was a matter of general applicability and I complied with the 1 plus 4 rule.
>
> The Hunton event was different because the invitation came from Hunton and not a former client. And, the clear purpose was business development, which I obviously could not support.
>
> _____
> Bill Wehrum
> Assistant Administrator
> Office of Air and Radiation
> U.S. Environmental Protection Agency
> (202) 564-7404
>
> On Feb 23, 2019, at 5:54 PM, Konkus, John <konkus.john@epa.gov> wrote:
>
>> Ok we can share that sentiment with her to provide more context.
>>
>> On Feb 23, 2019, at 5:49 PM, Wehrum, Bill <Wehrum.Bill@epa.gov> wrote:
>>
>> **Deliberative Process / Ex. 5**
>>
>> _____
>> Bill Wehrum
>> Assistant Administrator
>> Office of Air and Radiation
>> U.S. Environmental Protection Agency
>> (202) 564-7404
>>
>> On Feb 23, 2019, at 4:35 PM, Konkus, John <konkus.john@epa.gov> wrote:
>>
>> **Deliberative Process / Ex. 5**

On Feb 23, 2019, at 4:32 PM, Konkus, John <konkus.john@epa.gov> wrote:

Bill: Can you see if what she's saying below makes sense?

Begin forwarded message:

From: "Eilperin, Juliet" <Juliet.Eilperin@washpost.com>
Date: February 23, 2019 at 3:27:56 PM EST
To: "McFaul, Jessica" <mcfaul.jessica@epa.gov>
Cc: "Konkus, John" <konkus.john@epa.gov>
Subject: RE: following up, regarding my story on Bill Wehrum

Hey there, two updates. One, I am still working with editors on small changes to the story, so it won't post till tomorrow at this point.

And one small thing. My editors want one more quote, about why Bill thought the Dec. 7, 2017 meeting met the outlines of the ethics pledge (and was different from the one the week before). Now, this is what I've pulled from our interview:

Wehrum said that he did not run the meeting by ethics officials "because I thought I knew what the rules were, one plus four," meaning one former client and four other

invitees. He added that the session did not count as a business development opportunity for Hunton, because the utility group is its own "entity."

As you can see, I don't have complete quotes here, there just wasn't a complete sentence I can draw from. Can you see if what I have written above works, or if he would want to offer another quote that captures this idea? I think it is quite clear what he's trying to say, and I just want to reflect it in the piece.

Best,
Juliet

From: Eilperin, Juliet
Sent: Friday, February 22, 2019 5:34 PM
To: 'McFaul, Jessica' <mcfaul.jessica@epa.gov>
Cc: Konkus, John <konkus.john@epa.gov>
Subject: RE: following up, regarding my story on Bill Wehrum

Dear Jessica and John,
My update is that it is finally edited, and I don't think there are any questions at this point. But yet another editor wants to read the story. So honestly, I'm not quite sure when it will post. I will absolutely let you know

as soon as it does, of course.
Best,
Juliet

From: McFaul, Jessica <mcfaul.jessica@epa.gov>
Sent: Friday, February 22, 2019 4:13 PM
To: Eilperin, Juliet <Juliet.Eilperin@washpost.com>
Cc: Konkus, John <konkus.john@epa.gov>
Subject: Re: following up, regarding my story on Bill Wehrum

Stand by!

Jessica McFaul
Senior Advisor for Public Affairs

Ex. 6

On Feb 22, 2019, at 3:45 PM, Eilperin, Juliet <Juliet.Eilperin@washpost.com> wrote:

Dear Jessica,
Thanks for this. I was hoping to clarify if Bill has turned 55, or when that will be—I know it's a small point, but I really don't want to get his age wrong. From a search online, I've determined the annual salary for AAs is $164,200, so I've put that in the piece.
Best, Juliet

From: McFaul, Jessica <mcfaul.jessica@epa.gov>
Sent: Friday, February 22, 2019 3:39 PM
To: Eilperin, Juliet

<Juliet.Eilperin@washpost.com>
Cc: Konkus, John <konkus.john@epa.gov>
Subject: RE: following up, regarding my story on Bill Wehrum

[EXTERNAL EMAIL]

Juliet – Here are responses to all of your questions. Apologies for the delay…have a great weekend. Jess

1. **QUESTION:** Can I get the exact date of when Bill signed his ethics recusal letter? I thought I had it somewhere, but right now, I can't find it. (I'm just seeing his pre-confirmation ethics letter, which he signed in late August 2017.) It was either during the second half of August 2018, or the first half of Sept. 2018.

   RESPONSE: see attached

2. **QUESTION:** Bill said that he was "recused from work on the DTE memo." Was that a

determination that he made himself, or was it one made by someone in the Office of General Counsel? My editor wanted clarity on that, and since he hadn't identified DTE or UARG in a recusal letter at that point, it's impossible to tell.

RESPONSE: The determination was made in consultation with EPA Ethics officials. *On background: the recusal letter memorializes the practices already in place and does not indicate the "beginning" of ethical compliance…that begins on Day 1 of employment.*

3. **QUESTION:** As far as I can tell, it was Justin Schwab, rather than an EPA ethics official, who cleared Bill to read the memo and participate in the meeting. Just let me

know if there's anything inaccurate about that.

RESPONSE: Mr. Schwab's role was to confirm in an email response to Mandy Gunasekara dated 12/5/17 that the memo was adequately redacted to remove specific references to DTE and leave only information of general applicability.

4. **QUESTION:** The Politico story says, "Wehrum told POLITICO that while he continued to work for Hunton for most of 2017, he "billed typically just a few hours a year to UARG." He said he's stayed within ethical boundaries because rules don't prohibit him from working on regulations that apply to a broad suite of players and he has not met with UARG since joining

the EPA." But he did meet with UARG, on Dec. 7, 2017. So I wanted to clarify why he would say that he hasn't met with the group since joining the agency.

RESPONSE: The speaking request came from five companies that are UARG members. This was to ensure compliance with the Trump Ethics Pledge, which restricted meetings with former clients on matters of general applicability unless the "1+4" rule was met.

5. **QUESTION:** On Aug. 10, 2017, Bill sent Mandy Gunasekara a copy of the Aug. 8 DC Circuit order to hold the Clean Power Plan litigation in abeyance. Can you provide any context for why they would be emailing about that litigation, in which

Hunton was involved?

RESPONSE: It was just an FYI to ensure Ms. Gunasekara received the information in a timely manner; no further involvement or action taken.

6. **QUESTION:** On Aug. 18, 2017, there is another email from Bill to Mandy with a PDF, titled, "Heidi King regulation-c." Can you clarify what this email is about?
RESPONSE: Off the record, this was a copy of Ms. King's resume being floated for a position at EPA, which ultimately did not occur.

7. **QUESTION:** Did Bill raise the issue of changing the agency's interpretation of pre-construction requirements under NSR, as outlined under Dec. 7, 2017 memo that Scott Pruitt signed, before

joining the agency?
RESPONSE: No. (Worth noting that Mr. Wehrum already answered this question.)

From: Konkus, John
Sent: Thursday, February 21, 2019 11:03 AM
To: McFaul, Jessica <mcfaul.jessica@epa.gov>
Subject: Fwd: following up, regarding my story on Bill Wehrum

Begin forwarded message:

From: "Eilperin, Juliet" <Juliet.Eilperin@washpost.com>
Date: February 21, 2019 at 10:56:56 AM EST
To: "Konkus, John" <konkus.john@epa.gov>, "McFaul, Jessica" <Jessica

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A few additional questions have cropped up, both because of the Politico piece and the fact that some other documents have come up through FOIA. So here you go:

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I think that covers it, though I don't know if this editor will have additional questions. As I mentioned, I plan to post the story later today. Aside from a meeting at Interior from 2-3 pm, I should be pretty

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Best,
Juliet

Juliet
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Message

From: Konkus, John [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=555471B2BAA6419E8E141696F4577062-KONKUS, JOH]
Sent: 2/19/2019 1:21:43 PM
To: Personal Address / Ex. 6 [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6f061a85b2e14828934c1a85cc4d5122- Ex. 6 Personal Privacy (PP)
CC: Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Abboud, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6f5af791a1842f1adcc088cbf9ed3ce-Abboud, Mic]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]; Block, Molly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=60d0c681a16441a0b4fa16aa2dd4b9c5-Block, Moll]; Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]
Subject: Re: Reuters story on RFS reset

Ok

On Feb 19, 2019, at 8:19 AM, **Administrator / Ex. 6** wrote:

Deliberative Process / Ex. 5

Sent from my iPhone

On Feb 19, 2019, at 8:15 AM, Jackson, Ryan <jackson.ryan@epa.gov> wrote:

Deliberative Process / Ex. 5

Ryan Jackson
Chief of Staff
U.S. EPA
Personal Phone / Ex. 6

On Feb 19, 2019, at 7:25 AM, Abboud, Michael <abboud.michael@epa.gov> wrote:

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

WASHINGTON/NEW YORK (Reuters) - EPA acting administrator Andrew Wheeler rejected a proposal from his staff that would have reduced the ambition of the nation's biofuel policy over the next three years, arguing the targeted range it included for annual ethanol consumption was too low, according to two sources familiar with the matter.

The decision, made in December as part of the EPA's effort to reset targets set by Congress in 2007 closer to market reality, has become a source of concern among the oil industry's Republican legislative backers, some of whom have threatened to withhold support for Wheeler's confirmation as permanent EPA head over his views on ethanol.

The issue represents the latest flashpoint in the ongoing clash between Big Oil and Big Corn over the nation's biofuel policy, which has complicated President Donald Trump's relationship with the two rival constituencies that helped sweep him to the White House in 2016.

Under the U.S. Renewable Fuel Standard, oil refiners must blend billions of gallons of biofuels into their gasoline and diesel each year or buy credits from those that do.

The corn industry is constantly pushing for targets to go up to ensure a robust market for growers, while the oil industry wants them to decline because biofuels compete with petroleum and compliance costs them money.

Wheeler rejected a staff proposal presented in December that suggested the amount of ethanol that must be blended into the nation's fuel could be cut from the current level of 15 billion gallons annually to as low as 14.3 billion over the final three years of the RFS program ending in 2022, a figure that had been sought by the oil industry, according to two of the sources.

EPA staff made the proposal in the form of a range of 14.3 billion to 15 billion, the two sources said.

Wheeler, who has been running the agency on an interim basis since his predecessor Scott Pruitt resigned in July, dismissed the proposal saying the 14.3 billion gallons at the bottom of the range was too low and would guarantee outrage from corn-state lawmakers, one of the sources briefed on the matter said.

A second source familiar with the matter said Wheeler had rejected the 14.3 billion number because it was not clear if agency staff had considered the potential impact of a soon-to-be published EPA proposal to lift a summer ban on sales of higher-ethanol blends of gasoline called E15, which could boost the market for the corn-based fuel.

Asked about the exchange, EPA deputy administrator for air, Bill Wehrum, last week said: "We've talked to Wheeler about what we should do in the reset but no final decisions have been made." He added the work on the reset continued.

EPA spokesman Michael Abboud said on Friday: "EPA is still developing options regarding a reset proposal, and no final decisions have been made."

Five Republican senators from oil states, led by Ted Cruz of Texas, sent a letter to Wheeler dated Feb. 11 asking him about his biofuels policies, and saying their support for his confirmation could hinge on his responses.

Trump nominated Wheeler in January but he still faces a senate vote, likely to take place at the end of February.

Two sources told Reuters the senators were particularly concerned about Wheeler's rejection of the initial staff proposal on biofuel volume targets.

Officials from the senators' offices did not respond to requests for comment explaining their concerns.

WAIVERS, MEETINGS

The senators were also concerned that Wheeler had signaled in several recent meetings the agency could issue fewer exemptions to the nation's biofuel laws to small refineries than under Pruitt, according to the sources.

Pruitt's expanded use of the waivers, which are intended for small refining operations under financial strain, angered farmers and their legislative backers by exempting some 2.25 billion gallons of ethanol from the U.S. mandates.

But it also saved the oil industry hundreds of millions of dollars by driving down the cost of compliance credits.

One justification Wheeler could use for providing fewer waivers is that the lower credit prices have reduced the financial burden on refiners. But in recent weeks, refiners like Valero Energy Corp and HollyFrontier have been buying more of them than usual, three brokers told Reuters, a sign that they expect a rebound.

In their letter to Wheeler, the senators asked him if he would continue providing waivers “fully in accordance with the statute and case law.”

The senators have also been worried by Wheeler's meetings with biofuel trade groups and corn-state senators, according to one of the sources briefed by the senators’ staff.

A Reuters analysis of Wheeler’s public schedule shows he has met regularly with representatives of both sides of the debate, but has held several more meetings with corn backers than refining industry supporters since taking over in July.

EPA spokesman Michael Abboud has said that Wheeler "is happy to meet with those who actually request meetings."

Sent from my iPhone

Message

From: Schwab, Justin [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=EED0F609C0944CC2BBDB05DF3A10AADB-SCHWAB, JUS]
Sent: 1/22/2019 8:35:37 PM
To: Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]
CC: Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Shaw, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31ca1476a7674825a131cb2c0d6c88c8-BShaw03]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadddda2affa44-Harlow, Dav]; Tsirigotis, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c179f3ccb4fadb48e3ae85563f132-PTSIRIGO]; Dunham, Sarah [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a9444681441e4521ad92ae7d42919223-SDUNHAM]; Grundler, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d3be58c2cc8545d88cf74f3896d4460f-Grundler, Christopher]; Shoaff, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ac16fb09cf2c44adb34a7405dc331532-JShoaff]; Edwards, Jonathan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3715bc4dfc3e4d6caf3af1bf2fc5ca77-JEdwar02]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; Srinivasan, Gautam [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d69332838210416ba51779b19025f832-GSRINIVA]
Subject: RE: Draft QFR Responses
Attachments: EDIT dsh2019.01.18 - PROGRAM OFFICE DESIGNATED - ALL QFRs Wheeler 01.16.2019 cw.docx

(+ OGC: Matt Leopold, David Fotouhi, Gautam Srinivasan)

Redline/bubbles attached. Any edits of the RFS answers provided separately to follow later this afternoon.

From: Woods, Clint
Sent: Tuesday, January 22, 2019 1:21 PM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>
Cc: Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>; Shaw, Betsy <Shaw.Betsy@epa.gov>; Harlow, David <harlow.david@epa.gov>; Schwab, Justin <schwab.justin@epa.gov>; Tsirigotis, Peter <Tsirigotis.Peter@epa.gov>; Dunham, Sarah <Dunham.Sarah@epa.gov>; Grundler, Christopher <grundler.christopher@epa.gov>; Shoaff, John <Shoaff.John@epa.gov>; Edwards, Jonathan <Edwards.Jonathan@epa.gov>
Subject: Draft QFR Responses

Bill,

Attached for review by you and those CCed is the first set of draft responses to the questions for the record from Senate EPW. Please excuse my delay, and thanks to David for being the laboring oar this weekend.

Attorney Client / Ex. 5

Attorney Client / Ex. 5

As a reminder, OCIR is hoping to get OAR's draft responses by 10:00 AM tomorrow, and then they intend to simultaneously provide the set to the Administrator and OMB at approximately noon. Please feel free to send corrections, particularly red flags, to me or David by the end of the day.

Clint Woods
Deputy Assistant Administrator
Office of Air and Radiation, U.S. EPA
202.564.6562

Message

From: Schramm, Daniel [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=7E2ACDF1D56A4ACE83D810829C748FDB-SCHRAMM, DANIEL]
Sent: 6/13/2019 7:16:43 PM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Idsal, Anne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b1beca8121fb47a08e82b6bf2247a79b-Idsal, Anne]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]
CC: Srinivasan, Gautam [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d69332838210416ba51779b19025f832-GSRINIVA]; Zenick, Elliott [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1b2eaa2a560d415fb7c8ce9bb56c7ce5-EZENICK]; Marks, Matthew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=66cf58c470d84403af7d7dfd7efc8016-Marks, Matthew]; Feldman, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3231d9f1ad5147a9a0c81b36e0fb2b68-Feldman, Michael]; Nwankwo, Adaobi [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=db8802fa79494877b679bfa668caa1d2-Nwankwo, Ad]; Werner, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e8e94d3c8c4143ea9a039e40cc82a311-Werner, Chr]; Keas, Ashley [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3fe7e766798a4470ae56a564f807525c-Keas, Ashle]
Subject: RE: Upcoming Oral Argument in Sierra Club v. EPA, 5th Cir. No. 18-60116 (challenge to EPA approval of LA RH SIP)

PRIVILEGED

Attorney Client / Ex. 5

Attorney Client / Ex. 5

We will keep you informed when we receive an opinion or if the court requests supplemental briefing.

Signing off from New Orleans -
Dan and Nora

From: Greenglass, Nora
Sent: Tuesday, June 11, 2019 3:52 PM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>; Harlow, David <harlow.david@epa.gov>; Woods, Clint <woods.clint@epa.gov>; Idsal, Anne <idsal.anne@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Schwab, Justin <Schwab.Justin@epa.gov>
Cc: Srinivasan, Gautam <Srinivasan.Gautam@epa.gov>; Zenick, Elliott <Zenick.Elliott@epa.gov>; Marks, Matthew <Marks.Matthew@epa.gov>; Schramm, Daniel <Schramm.Daniel@epa.gov>
Subject: Upcoming Oral Argument in Sierra Club v. EPA, 5th Cir. No. 18-60116 (challenge to EPA approval of LA RH SIP)

On Thursday, June 13, 2019, the Fifth Circuit Court of Appeals will hear argument regarding two sets of challenges to EPA's approval of Louisiana's regional haze SIP, 82 FR 60520 (Dec. 21, 2017). The case is *Sierra Club v. EPA*, No. 18-60116 (5th Cir. filed Feb. 19, 2018). Industry petitioners are Entergy Louisiana and Cleco Power; environmental petitioners are Sierra Club and National Parks Conservation Association. The industry parties (with the addition of UARG) have intervened in environmental petitioners' case and environmental parties have likewise intervened in industry petitioners' case. Louisiana also filed an amicus brief. All briefs are attached.

Industry petitioners challenge EPA's approval of Louisiana's determinations that two power plants, Entergy's R.S. Nelson Power Plant and Cleco's Brame Energy Center, are subject to BART. Petitioners present a number of technical arguments related to the modeling Louisiana included in its submission, including that CALPUFF, EPA's regulatorily approved model for subject-to-BART determinations, is not suitable for use in this context. Petitioners further argue that the results of their own modeling analysis using a different model, CAMx, show that the sources are not subject to BART, and that EPA's own CAMx modeling reaching the opposite conclusion was conducted using inappropriate protocols and assumptions. In short, petitioners argue that their methodologies and results represent the correct application of these models, and assert that approval of Louisiana's BART determinations based on EPA's modeling methodologies and results is arbitrary and capricious. EPA argues as an initial matter that Industry has failed to identify a failure to meet applicable CAA requirements that could justify disapproval of Louisiana's SIP for inclusion of these sources as subject to BART. EPA also argues that certain of Industry's technical challenges are really attacks on policy choices made in the 2005 BART Guidelines. On the technical issues, EPA argues that CALPUFF remains an appropriate tool for subject-to-BART determinations as evidenced by our reaffirmation of CALPUFF for this purpose in a 2017 update to our modeling regulations. Additionally, EPA explains that its modeling protocols are designed to be consistent with the purpose of subject-to-BART determinations, which is a conservative screening step to identify sources that are reasonably anticipated to cause or contribute to any visibility impairment in Class I areas. That is, EPA's protocols, unlike petitioners', are appropriately designed to capture an individual source's largest real-world impacts on visibility in order to determine if that source should be subject to further consideration under the five-factor BART analysis.

Environmental petitioners challenge two aspects of EPA's action: EPA's approval of Louisiana's determination that SO_2 BART for Nelson Unit 6 is based on the use of low-sulfur coal, and EPA's approval of Louisiana's long-term strategy for making reasonable progress. With regard to Nelson, petitioners argue that EPA should not have approved Louisiana's BART determination because it was based on analyses from Entergy that were not conducted in accordance with the mandatory BART Guidelines, and because neither Louisiana's BART determination nor EPA's approval of that determination was consistent with EPA's corrected analyses that showed BART for Nelson should be scrubbers. Petitioners also argue that EPA should not have approved Louisiana's long-term strategy because it does not address emissions from Dolet Hills; petitioners claim that EPA stated in 2012 that Louisiana must revisit the sources it addresses under the reasonable progress requirements when it revises its SIP to remedy its reliance on CAIR. With regard to Nelson, EPA argues that the agency provided to Louisiana corrected analyses that met the applicable requirements and the State included those analyses as appendices to its SIP submission. Because EPA is required to approve a SIP submission that meets all the requirements and Louisiana's submission contained EPA's corrected analyses, EPA reasonably approved the State's submission. EPA also argues that states have discretion to weigh the information in their submissions as they desire so long as they explain their reasoning, and that the path to Louisiana's determination in this case that BART is low-sulfur coal can be reasonably discerned. With regard to Louisiana's long-term strategy, EPA argues that petitioners misinterpret EPA's earlier statement, and are in fact attempting to challenge EPA's 2012 approval of Louisiana's decision to examine only one source, Big Cajun II, under the reasonable progress requirements.

The panel will be Judges Jerry Smith, Jacques Wiener, and Jennifer Elrod. This will be the only case they hear on Thursday, and arguments are scheduled to begin at 9:00 central. Petitioners each have 20 minutes. EPA has 40 minutes, but has given four minutes each to industry and environmental intervenors. Although the Fifth Circuit does not livestream argument, audio recordings should be available at the end of the day (http://www.ca5.uscourts.gov/oral-argument-information/oral-argument-recordings).

EPA will be represented by ENRD's Sheila Baynes. Entergy and Cleco will be represented by Debra Jezouit and Megan Berge of Baker Botts. Sierra Club and National Parks Conservation Association will be represented by Joshua Smith of Sierra Club.

Please let me or Dan Schramm know if you have any questions.

Nora Greenglass
Office of General Counsel | Air & Radiation Law Office
U.S. Environmental Protection Agency

202-564-3095 (office)
202-603-6299 (cell)

Message

From: Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]
Sent: 5/1/2019 11:17:46 PM
To: Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]
CC: Abboud, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6f5af791a1842f1adcc088cbf9ed3ce-Abboud, Mic]; McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]; Schiermeyer, Corry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b0332276a9784253a5a78f39eccf1f29-Schiermeyer]; Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]
Subject: RE: Wehrum/Air Forum comments

John,

I don't wish to answer for Bill with respect to any of these matters, but since my name has also come up, I'll pass along some things for your consideration, for whatever value you may find in them as the Agency formulates its response to Mr. Guillen's questions.

- The Air Permitting Forum (APF) is not listed on my recusal statement as a "former client to whom I provided legal services" (in the language used by Executive Order 13770, *i.e.* the Trump ethics pledge) during the operative period of time (*i.e.*, 2015, 2016, and 2017). I never did any legal work, billed time, recorded time, what have you, for the APF during my time at Hunton.

- While, as I say, I won't speak for Bill, I note that the Air Permitting Forum is not listed as a "former client" on his recusal statement either.

- Per the above, I was not involved in any way (*e.g.*, preparation, review, etc.) with the APF's May 2017 comments, which it submitted in Docket No. EPA-HQ-OA-2017-0190, "Evaluation of Existing Regulations." *See* 82 Fed. Reg. 17,793 (April 13, 2017). This docket, as you may be aware, was opened by EPA as directed by Executive Order 13777, entitled "Enforcing the Regulatory Reform Agenda." Among its provisions, EO 13777 directs that federal agencies "evaluate existing regulations" and "attempt to identify regulations" that "eliminate jobs, or inhibit job creation," are "outdated, unnecessary, or ineffective," "impose costs that exceed benefits," and "create a serious inconsistency or otherwise interfere with regulatory

reform initiatives and policies," with an eye towards identifying regulations "for repeal, replacement, or modification."

I mention this by way of noting that, when I was at Hunton, I was unaware of (i) Executive Order 13777; (ii) Docket No. EPA-HQ-OA-2017-0190; (iii) the aforementioned April 13, 2017 *Federal Register* notice; or (iv) the very existence of the May 15, 2017 comments prepared and submitted by the APF. Since coming to EPA, however, I have become aware of all those things, including many of the comments filed by stakeholders in response to the April 13 *Federal Register* solicitation, a solicitation that corresponds to the directive in Executive Order 13777 that agencies "shall seek input and other assistance, as permitted by law, from entities significantly affected by Federal regulations, including State, local and tribal governments, small businesses, consumers, non-governmental organizations, and trade associations." My review of those comments have helped to inform me of those New Source Review reform measures that are apparently of the most interest to affected stakeholders, so as to better prioritize our limited resources, including the time available to us to effect reform. That, as I understand it, is the direction we have been given by the President.

As best I recall, I became aware of the May 15, 2017 APF comments around June 2018. I hadn't looked at the comments submitted to Docket No. EPA-HQ-OA-2017-0190 before that time.

- While the question was directed specifically to Bill and not me, I do not know what companies comprise the membership of the APF. Similar to UARG, APF describes itself (*e.g.*, in Rule 26.1 Corporate Disclosure statements in federal appellate courts) as a "trade association" and does not otherwise identify its members. For that reason, I have no idea whether I may have ever done any work (either during the relevant years 2015, 2016, and 2017, or before then) for an APF member company.

- One other potentially salient point – and here I do not think I would be disclosing any client confidences of my former firm, since this is information easily accessible if one peruses federal court dockets: the APF is represented by two Hunton attorneys, Chuck Knauss and Shannon Broome, who joined Hunton in June 2016, I think it was. They were at another firm prior to that time and were counsel to the APF when they were at that other firm. That is, they brought the APF along with them as a client when they came to Hunton. That is why I can say with certainty that I never did any work for the APF during my 30-some years at Hunton and also explains why I'm unaware of the identity of any of its member companies. Put simply, the APF was never a thing with me (nor, I would hazard to

guess, with Bill). It was Chuck and Shannon's client. That's how these things tend to work at big firms.

- I never reviewed "that portion of the December 2017 DTE memo," nor *any* portion of the memorandum, prior to its being signed by then-Administrator Pruitt on December 7, 2017, if by "reviewed" Mr. Guillen means to read with the intent of evaluating, suggesting revisions, and so on. I did not do any such work on the memorandum. At Mandy's direction, I was emailed a draft of the memorandum soon after my arrival at the Agency in October 2017 (I believe towards the end of my first week). I punched it up, looked to see what it was, and then closed the document. I was never asked to do any work on the draft memorandum and did not. I was also sent (emailed by Mandy) a draft of the memorandum towards the end of November. Why she thought to do so then I cannot now recall, assuming I did ever know. I was not asked to do any work on the draft at that time, and I did not. Subsequently, I was provided a near-final (and, in an abundance of caution, redacted) draft of the memorandum in conjunction with the briefing held on December 5. I participated in that briefing, in the sense that I was in attendance.

- I confess that I do have a copy of the December 7 memorandum on my desk. I find it useful because the Administrator's Office and OAR use a different style manual, and the December 7 memorandum serves as a handy template, when we in OAR are preparing something with the expectation that it will be issued by the Administrator's office (*e.g.*, the March 13, 2018 guidance memorandum on "project emissions accounting"). That is what I find it useful for. I haven't myself ever read the December 7 memorandum from start to finish.

- Did those at EPA who drafted the December 7 memorandum crib the sentence in question from the APF comments? I have no idea. It would not surprise me, however, if stakeholder comments found to be on point were cannibalized in such a fashion. But that's speculation on my part. I don't myself know who here specifically drafted the December 7 memorandum. I do know, because I have seen email exchanges to this effect, emails that have been released in response to FOIA requests (I do the FOIA awareness reviews for the OAR politicals), that our folks in OAQPS/AQPD were involved. Those emails date back at least to September 2017, as I recall.

- While this admittedly doesn't go to Mr. Guillen's point, I would note that the phrase "predominant cause," in the context in which it was used in the APF comments, is by no means *original* to the APF. Rather, it is clearly a reference to language from the so-called "WEPCo rule," which was promulgated back in 1992. *See* 57 Fed. Reg. 32,327 (July 21, 1992) ("If efficiency improvements are the predominant cause of the change in emissions and demand growth is not, the

exclusion does not apply."). Industry stakeholders have been flacking not only this phrase but the underlying concept in the context of NSR "causation" analysis for a quarter of a century now. I've done some of that flacking myself in the past, but not with respect to the May 15 APF comments nor with respect to the December 7 memorandum.

- Finally, I would like to re-up something that I know I've said before: while I didn't, in fact, work on what became the December 7, 2017 memorandum, I don't view this guidance document – being a statement of the Agency's policy with respect to implementing, going forward, a specific regulatory provision that is broadly applicable to all industry – as involving a "particular matter involving specific parties" within the meaning of the Trump ethics pledge. Accordingly, *had* I chosen to work on the memorandum, I don't see where that would have run afoul of any recusal obligation, notwithstanding the fact that the Agency was prompted to address the issue due to the confusion arising out of litigation involving a "former client" of mine (litigation in which, I would also add, I was not involved during the relevant years).

Happy to discuss further, John, if you think it would be helpful.

David S. Harlow
Senior Counsel
Immediate Office of the Assistant Administrator
Office of Air and Radiation, USEPA
WJC-N Room 5409K
1200 Pennsylvania Avenue NW
Washington, DC 20460
202-564-1233
Harlow.David@epa.gov

From: Konkus, John
Sent: Wednesday, May 1, 2019 4:16 PM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Schwab, Justin <Schwab.Justin@epa.gov>; Harlow, David <harlow.david@epa.gov>
Cc: Abboud, Michael <abboud.michael@epa.gov>; McFaul, Jessica <mcfaul.jessica@epa.gov>; Schiermeyer, Corry <schiermeyer.corry@epa.gov>; Hewitt, James <hewitt.james@epa.gov>
Subject: FW: Wehrum/Air Forum comments

I understand Bill is out of the office this week, however, we have this inquiry below that needs to be addressed by 5pm tomorrow...

From: Alex Guillen <aguillen@politico.com>
Sent: Wednesday, May 1, 2019 4:13 PM
To: Press <Press@epa.gov>
Subject: Wehrum/Air Forum comments

Good afternoon,

I'm writing about a discovery by Sens. Tom Carper and Sheldon Whitehouse that part of the December 2017 NSR memo contains a passage very close to language submitted to EPA through a public comment process months earlier by the Air Permitting Forum. The Forum, like UARG, is run by attorneys at Hunton, Bill Wehrum's prior firm. I have specific questions below and would welcome any other comment from EPA. My deadline is **5 p.m. on Thursday, May 2**.

Here are the passages in question. I've attached the full documents as well.

From the December 2017 Pruitt memo: "Because increased emissions may be caused by multiple factors, the **EPA has recognized that the source must exercise judgement to exclude increases for which the project is not the 'predominant cause.'"**

From the May 2017 Air Permitting Forum comments: "While historically **EPA has recognized that a source must exercise judgment to exclude increases for which the project is not the 'predominant cause,'** more recent EPA actions reflect the view that all emission increases are presumed to be caused by the change."

My questions:

Did Wehrum ever work for the Air Permitting Forum or any of its member companies while at Hunton?

Did he review the Forum's May 2017 regulatory comments to EPA while at Hunton?

Did Wehrum review the part of the December 2017 DTE memo discussing the exclusion issue (contained in the third paragraph on page 7)? If so, was he aware the language was virtually identical to that submitted by the Forum? (That part of the memo does not directly reference DTE, and EPA has said Wehrum consulted on the non-DTE portions of the memo.)

The memo-writing process took several months. When did EPA add the sentence in question to the memo? Did EPA purposely adopt the Forum's language? If so, why did the agency decide not to cite the source of the passage?

Did David Harlow ever work for the Forum at Hunton? Was he ever involved with the Forum's May 2017 regulatory comment? Did he review that portion of the December 2017 DTE memo, or any portion of the memo at all?

Thank you,

Alex Guillen | Energy Reporter | **POLITICO**PRO
1000 Wilson Boulevard, 8th Floor | Arlington, VA 22209
Phone: Ex. 6
Email: aguillen@politico.com | Twitter: @alexcguillen | Website: www.POLITICOPro.com

Message

From: McFaul, Jessica [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=51B00479CD7446E4AA7743028C0D8D91-MCFAUL, JES]
Sent: 2/23/2019 9:58:56 PM
To: Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]
CC: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]
Subject: Re: following up, regarding my story on Bill Wehrum

For what it's worth, I think it's fair.

Jessica McFaul
Senior Advisor for Public Affairs
Ex. 6

On Feb 23, 2019, at 4:35 PM, Konkus, John <konkus.john@epa.gov> wrote:

Deliberative Process / Ex. 5

On Feb 23, 2019, at 4:32 PM, Konkus, John <konkus.john@epa.gov> wrote:

Bill: Can you see if what she's saying below makes sense?

Begin forwarded message:

From: "Eilperin, Juliet" <Juliet.Eilperin@washpost.com>
Date: February 23, 2019 at 3:27:56 PM EST
To: "McFaul, Jessica" <mcfaul.jessica@epa.gov>
Cc: "Konkus, John" <konkus.john@epa.gov>
Subject: RE: following up, regarding my story on Bill Wehrum

Hey there, two updates. One, I am still working with editors on small changes to the story, so it won't post till tomorrow at this point.

And one small thing. My editors want one more quote, about why Bill thought the Dec. 7, 2017 meeting met the outlines of the ethics pledge (and was different from the one the week before). Now, this is what I've pulled from our interview:

Wehrum said that he did not run the meeting by ethics officials "because I thought I knew what the rules were, one plus four," meaning one former client and four other invitees. He added that the session did not count as a business development opportunity for Hunton, because the utility group is its own "entity."

As you can see, I don't have complete quotes here, there just wasn't a complete sentence I can draw from. Can you see if what I have written above works, or if he

would want to offer another quote that captures this idea? I think it is quite clear what he's trying to say, and I just want to reflect it in the piece.

Best,
Juliet

From: Eilperin, Juliet
Sent: Friday, February 22, 2019 5:34 PM
To: 'McFaul, Jessica' <mcfaul.jessica@epa.gov>
Cc: Konkus, John <konkus.john@epa.gov>
Subject: RE: following up, regarding my story on Bill Wehrum

Dear Jessica and John,
My update is that it is finally edited, and I don't think there are any questions at this point. But yet another editor wants to read the story. So honestly, I'm not quite sure when it will post. I will absolutely let you know as soon as it does, of course.
Best,
Juliet

From: McFaul, Jessica <mcfaul.jessica@epa.gov>
Sent: Friday, February 22, 2019 4:13 PM
To: Eilperin, Juliet <Juliet.Eilperin@washpost.com>
Cc: Konkus, John <konkus.john@epa.gov>
Subject: Re: following up, regarding my story on Bill Wehrum

Stand by!

Jessica McFaul
Senior Advisor for Public Affairs
Ex. 6

On Feb 22, 2019, at 3:45 PM, Eilperin, Juliet <Juliet.Eilperin@washpost.com> wrote:

Dear Jessica,
Thanks for this. I was hoping to clarify if Bill has turned 55, or when that will be—I know it's a small point, but I really don't want to get his age wrong. From a search online, I've determined the annual salary for AAs is $164,200, so I've put that in the piece.
Best, Juliet

From: McFaul, Jessica <mcfaul.jessica@epa.gov>
Sent: Friday, February 22, 2019 3:39 PM
To: Eilperin, Juliet <Juliet.Eilperin@washpost.com>
Cc: Konkus, John <konkus.john@epa.gov>
Subject: RE: following up, regarding my story on Bill Wehrum

[EXTERNAL EMAIL]

Juliet – Here are responses to all of your questions. Apologies for the delay…have a great weekend. Jess

1. **QUESTION:** Can I get the exact date of when Bill signed his ethics recusal letter? I thought I had it somewhere, but right now, I can't find it. (I'm just seeing his pre-confirmation ethics letter, which he signed in late August 2017.) It was either during the second half of August 2018, or the first half of Sept. 2018.

   RESPONSE: see attached

2. **QUESTION:** Bill said that he was "recused from work on the DTE memo." Was that a determination that he made himself, or was it one made by someone in the Office of General Counsel? My editor wanted clarity on that, and since he hadn't identified DTE or UARG in a recusal letter at that point, it's impossible to tell.

   RESPONSE: The determination was made in consultation with EPA Ethics officials. *On background: the recusal letter memorializes the practices already in place and does not indicate the "beginning" of ethical compliance...that begins on Day 1 of employment.*

3. **QUESTION:** As far as I can tell, it was Justin Schwab, rather than an EPA ethics official, who cleared Bill to read the memo and participate in the meeting. Just let me know if there's anything inaccurate about that.

   RESPONSE: Mr. Schwab's role was to confirm in an email response to Mandy Gunasekara dated 12/5/17 that the memo was adequately redacted to remove specific references to DTE and leave only information of general applicability.

4. **QUESTION:** The Politico story says, "Wehrum told POLITICO that while he continued to work for Hunton for most of 2017, he "billed typically just a few hours a year to UARG." He said he's stayed within ethical boundaries because rules don't prohibit him from working on regulations that apply to a broad suite of players and he has not met with UARG since joining the EPA." But he did meet with UARG, on Dec. 7, 2017. So I wanted to clarify why he would say that he hasn't met with the group since joining the agency.

   RESPONSE: The speaking request came from five companies that are UARG members. This was to ensure compliance with the Trump Ethics Pledge, which restricted meetings with former clients on matters of general applicability unless the "1+4" rule was met.

5. **QUESTION:** On Aug. 10, 2017, Bill sent Mandy Gunasekara a copy of the Aug. 8 DC Circuit order to hold the Clean Power Plan litigation in abeyance. Can you provide any context for why they would be emailing about that litigation, in which Hunton was involved?

   RESPONSE: It was just an FYI to ensure Ms. Gunasekara received the information in a timely manner; no further involvement or action taken.

6. **QUESTION:** On Aug. 18, 2017, there is another email from Bill to Mandy with a PDF, titled, "Heidi King regulation-c." Can you clarify what this email is about?
   RESPONSE: Off the record, this was a copy of Ms. King's resume being floated for a position at EPA, which ultimately did not occur.

7. **QUESTION:** Did Bill raise the issue of changing the agency's interpretation of pre-construction requirements under NSR, as outlined under Dec. 7, 2017 memo that Scott Pruitt signed, before joining the agency?
   RESPONSE: No. (Worth noting that Mr. Wehrum already answered this question.)

From: Konkus, John
Sent: Thursday, February 21, 2019 11:03 AM
To: McFaul, Jessica <mcfaul.jessica@epa.gov>
Subject: Fwd: following up, regarding my story on Bill Wehrum

Begin forwarded message:

> **From:** "Eilperin, Juliet" <Juliet.Eilperin@washpost.com>
> **Date:** February 21, 2019 at 10:56:56 AM EST
> **To:** "Konkus, John" <konkus.john@epa.gov>, "McFaul, Jessica" <Jessica.McFaul@mail.house.gov>
> **Subject: following up, regarding my story on Bill Wehrum**
>
> Dear John and Jessica,
>
> I'm sorry I couldn't turn around this story earlier—I've faced that challenge of my editor leaving for vacation on Tuesday, which has complicated my week. That said, I am confident that I can turn around the story today.
>
> A few additional questions have cropped up, both because of the Politico piece and the fact that some other documents have come up through FOIA. So here you go:
>
> 1. Can I get the exact date of when Bill signed his ethics recusal letter? I thought I had it somewhere, but right now, I can't find it. (I'm just seeing his pre-confirmation ethics letter, which he signed in late August 2017.) It was either during the second half of August 2018, or the first half of Sept. 2018.
> 2. Bill said that he was "recused from work on the DTE memo." Was that a determination that he made himself, or was it one made by someone in the Office of General Counsel? My editor wanted clarity on that, and since he hadn't identified DTE or UARG in a recusal letter at that point, it's impossible to tell.
> 3. As far as I can tell, it was Justin Schwab, rather than an EPA ethics official, who cleared Bill to read the memo and participate in the meeting. Just let me know if there's anything inaccurate about that.
> 4. The Politico story says, "Wehrum told POLITICO that while he continued to work for Hunton for most of 2017, he "billed typically just a few hours a year to UARG." He said he's stayed within ethical boundaries because rules don't prohibit him from working on regulations that apply to a broad suite of players and he has not met with UARG since joining the EPA." But he did meet with UARG, on Dec. 7, 2017. So I wanted to clarify why

he would say that he hasn't met with the group since joining the agency.

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6. On Aug. 18, 2017, there is another email from Bill to Mandy with a PDF, titled, "Heidi King regulation-c." Can you clarify what this email is about?
7. Did Bill raise the issue of changing the agency's interpretation of pre-construction requirements under NSR, as outlined under Dec. 7, 2017 memo that Scott Pruitt signed, before joining the agency?

I think that covers it, though I don't know if this editor will have additional questions. As I mentioned, I plan to post the story later today. Aside from a meeting at Interior from 2-3 pm, I should be pretty reachable.
Best, Juliet

Juliet Eilperin
Senior National Affairs Correspondent
Washington Post
Juliet.eilperin@washpost.com
(O) Ex. 6
(C)
@eilperin

Message

From: Palich, Christian [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=330AD62E158D43AF93FCBBECE930D21A-PALICH, CHR]
Sent: 1/19/2019 5:02:37 PM
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Subject: RE: ALL AAW QFRs - Program Office Designated
Attachments: SPW 011619.pdf

Hello Everyone,

Attached is the hearing transcript from Wednesday to assist in answering the QFR's.

Have a great day,

Christian R. Palich
Deputy Associate Administrator
Office of Congressional & Intergovernmental Affairs
U.S Environmental Protection Agency
O: 202.564.4944
C: Personal cell / email
E: Palich.Christian@epa.gov

From: Frye, Tony (Robert)
Sent: Friday, January 18, 2019 7:22 PM
To: Richardson, RobinH <Richardson.RobinH@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Ross, David P <ross.davidp@epa.gov>; Voyles, Travis <Voyles.Travis@epa.gov>; Molina, Michael <molina.michael@epa.gov>; Wildeman, Anna <wildeman.anna@epa.gov>; Woods, Clint <woods.clint@epa.gov>; Bolen, Brittany <bolen.brittany@epa.gov>; Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Benevento, Douglas <benevento.douglas@epa.gov>; Thomas, Deb <thomas.debrah@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>; Kime, Robin <Kime.Robin@epa.gov>; Stanich, Ted <Stanich.Ted@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>; Shaw, Betsy <Shaw.Betsy@epa.gov>; Stoker, Michael B. <stoker.michael@epa.gov>; Jordan, Deborah <Jordan.Deborah@epa.gov>; Lubetsky, Jonathan <Lubetsky.Jonathan@epa.gov>; Greaves, Holly <greaves.holly@epa.gov>; Bloom, David <Bloom.David@epa.gov>; Terris, Carol <Terris.Carol@epa.gov>; Hladick, Christopher <hladick.christopher@epa.gov>; Pirzadeh, Michelle <Pirzadeh.Michelle@epa.gov>; Dunn, Alexandra <dunn.alexandra@epa.gov>; Beck, Nancy <Beck.Nancy@epa.gov>; Kadeli, Lek <Kadeli.Lek@epa.gov>; Bertrand, Charlotte <Bertrand.Charlotte@epa.gov>; Lopez, Peter <lopez.peter@epa.gov>; Mugdan, Walter <Mugdan.Walter@epa.gov>; Manna, Richard <Manna.Richard@epa.gov>; Bodine, Susan <bodine.susan@epa.gov>; Traylor, Patrick <traylor.patrick@epa.gov>; Starfield, Lawrence <Starfield.Lawrence@epa.gov>; Badalamente, Mark <Badalamente.Mark@epa.gov>; Emmerson, Caroline <Emmerson.Caroline@epa.gov>; Fotouhi, David <Fotouhi.David@epa.gov>; Packard, Elise <Packard.Elise@epa.gov>; Gulliford, Jim <gulliford.jim@epa.gov>; Chu, Ed <Chu.Ed@epa.gov>; Sheehan, Charles <Sheehan.Charles@epa.gov>; McIntosh, Chad <mcintosh.chad@epa.gov>; Nishida, Jane <Nishida.Jane@epa.gov>; Wright, Peter <wright.peter@epa.gov>; Cook, Steven <cook.steven@epa.gov>; Breen, Barry <Breen.Barry@epa.gov>; Simon, Nigel <Simon.Nigel@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>; Szaro, Deb <Szaro.Deb@epa.gov>; Servidio, Cosmo <Servidio.Cosmo@epa.gov>; Rodrigues, Cecil <rodrigues.cecil@epa.gov>; Fields, Jenifer <fields.jenifer@epa.gov>; Vizian, Donna <Vizian.Donna@epa.gov>; Lapierre, Kenneth <Lapierre.Kenneth@epa.gov>; Idsal, Anne <idsal.anne@epa.gov>; Cooper, Marian <Cooper.Marian@epa.gov>; Hitchens, Lynnann <hitchens.lynnann@epa.gov>; Gray, David <gray.david@epa.gov>; Dunlap, David <dunlap.david@epa.gov>; Orme-Zavaleta, Jennifer <Orme-Zavaleta.Jennifer@epa.gov>; Robbins, Chris <Robbins.Chris@epa.gov>; Blackburn, Elizabeth <Blackburn.Elizabeth@epa.gov>; Walker, Mary <walker.mary@epa.gov>; Forsgren, Lee <Forsgren.Lee@epa.gov>; Best-Wong, Benita <Best-Wong.Benita@epa.gov>; Spraul, Greg <Spraul.Greg@epa.gov>; Stepp, Cathy <stepp.cathy@epa.gov>; Thiede, Kurt <thiede.kurt@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Baptist, Erik <Baptist.Erik@epa.gov>; Darwin, Henry <darwin.henry@epa.gov>; Palich, Christian <palich.christian@epa.gov>; Rodrick, Christian <rodrick.christian@epa.gov>; Ringel, Aaron <ringel.aaron@epa.gov>; Schwab, Justin <Schwab.Justin@epa.gov>; Konkus, John <konkus.john@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>; Block, Molly <block.molly@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Beach, Christopher <beach.christopher@epa.gov>; Levine, Carolyn <Levine.Carolyn@epa.gov>; Kaiser, Sven-Erik

<Kaiser.Sven-Erik@epa.gov>; Moody, Christina <Moody.Christina@epa.gov>; Haman, Patricia <Haman.Patricia@epa.gov>; Jackson, Ryan <jackson.ryan@epa.gov>
Subject: ALL AAW QFRs - Program Office Designated

Hello All – Attached, please find the full list of questions from SEPW from Acting-Administrator Wheeler's hearing. Please work with your teams to provide draft responses and only send your final responses to Troy, Christian Palich, and me to make sure we are able to maintain an accurate master document.

For reference, here is the timeline we are following:

Please note that QFR responses will be due to OCIR by 10:00am on Wednesday, January 23.

Tentative QFR Timeline

Deliberative Process / Ex. 5

Thank you again for your efforts.

Best,
Tony

Tony Frye
Special Advisor
Office of Congressional Affairs
Environmental Protection Agency
Cell: Personal cell / email

Message

From: Mugdan, Walter [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1C2AFFC8E24E46D286613D2B8074A03B-MUGDAN, WALTER]
Sent: 1/19/2019 3:56:08 PM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Shaw, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31ca1476a7674825a131cb2c0d6c88c8-BShaw03]
CC: Lopez, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b7b64b3b2f984708840a5f342309d460-Lopez, Pete]
Subject: FW: ALL AAW QFRs - Program Office Designated
Attachments: 2019.01.18 - PROGRAM OFFICE DESIGNATED - ALL QFRs Wheeler 01.16.2019.docx

Colleagues,

Question #114 from Senator Gillibrand (copied below) mentions ozone and PM concerns for New York state; however, the question is more general in scope and has been assigned to OAR. If you need any support from Region 2 in developing your response to this question, please don't hesitate to reach out to RA Pete Lopez (Personal Phone / Ex. 6 or me Personal Phone / Ex. 6

-Walter

Walter Mugdan
Deputy Regional Administrator
U.S. EPA Region 2
212-637-4390 (office)
646-369-0058 (mobile)

114.OAR: The interstate transport of ozone and particulate matter is a serious environmental and public health problem in New York. Cross-state air pollution contributes to death and illness in our state and damages our natural resources. Such pollution generated in upwind states also interferes with New York's ability to meet its legal obligation to attain the national standards set by EPA.

a. What impacts will the Clean Air Act regulatory actions taken by the EPA during the Trump Administration have on ozone and cross-state air pollution on downwind states like New York?
b. What is the scientific basis for your response to (a)?

From: Frye, Tony (Robert)
Sent: Friday, January 18, 2019 7:22 PM
To: Richardson, RobinH <Richardson.RobinH@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Ross, David P <ross.davidp@epa.gov>; Voyles, Travis <Voyles.Travis@epa.gov>; Molina, Michael <molina.michael@epa.gov>; Wildeman, Anna <wildeman.anna@epa.gov>; Woods, Clint <woods.Clint@epa.gov>; Bolen, Brittany <bolen.brittany@epa.gov>; Wooden-Aguilar, Helena <Wooden-Aguilar.Helena@epa.gov>; Benevento, Douglas <benevento.douglas@epa.gov>; Thomas, Deb <thomas.debrah@epa.gov>; Grantham, Nancy <Grantham.Nancy@epa.gov>; Kime, Robin <Kime.Robin@epa.gov>; Stanich, Ted <Stanich.Ted@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>; Shaw, Betsy <Shaw.Betsy@epa.gov>; Stoker, Michael B. <stoker.michael@epa.gov>; Jordan, Deborah <Jordan.Deborah@epa.gov>; Lubetsky, Jonathan <Lubetsky.Jonathan@epa.gov>; Greaves, Holly <greaves.holly@epa.gov>; Bloom, David <Bloom.David@epa.gov>; Terris, Carol <Terris.Carol@epa.gov>; Hladick, Christopher <hladick.christopher@epa.gov>; Pirzadeh, Michelle <Pirzadeh.Michelle@epa.gov>; Dunn, Alexandra <dunn.alexandra@epa.gov>; Beck, Nancy <Beck.Nancy@epa.gov>; Kadeli, Lek <Kadeli.Lek@epa.gov>; Bertrand, Charlotte <Bertrand.Charlotte@epa.gov>; Lopez, Peter <lopez.peter@epa.gov>; Mugdan, Walter <Mugdan.Walter@epa.gov>; Manna, Richard <Manna.Richard@epa.gov>; Bodine, Susan <bodine.susan@epa.gov>;

Traylor, Patrick <traylor.patrick@epa.gov>; Starfield, Lawrence <Starfield.Lawrence@epa.gov>; Badalamente, Mark <Badalamente.Mark@epa.gov>; Emmerson, Caroline <Emmerson.Caroline@epa.gov>; Fotouhi, David <fotouhi.david@epa.gov>; Packard, Elise <Packard.Elise@epa.gov>; Gulliford, Jim <gulliford.jim@epa.gov>; Chu, Ed <Chu.Ed@epa.gov>; Sheehan, Charles <Sheehan.Charles@epa.gov>; McIntosh, Chad <mcintosh.chad@epa.gov>; Nishida, Jane <Nishida.Jane@epa.gov>; Wright, Peter <wright.peter@epa.gov>; Cook, Steven <cook.steven@epa.gov>; Breen, Barry <Breen.Barry@epa.gov>; Simon, Nigel <Simon.Nigel@epa.gov>; Benjamin, Kent <Benjamin.Kent@epa.gov>; Szaro, Deb <Szaro.Deb@epa.gov>; Servidio, Cosmo <servidio.cosmo@epa.gov>; Rodrigues, Cecil <rodrigues.cecil@epa.gov>; Fields, Jenifer <fields.jenifer@epa.gov>; Vizian, Donna <Vizian.Donna@epa.gov>; Lapierre, Kenneth <lapierre.kenneth@epa.gov>; Idsal, Anne <idsal.anne@epa.gov>; Cooper, Marian <Cooper.Marian@epa.gov>; Hitchens, Lynnann <hitchens.lynnann@epa.gov>; Gray, David <gray.david@epa.gov>; Dunlap, David <dunlap.david@epa.gov>; Orme-Zavaleta, Jennifer <Orme-Zavaleta.Jennifer@epa.gov>; Robbins, Chris <Robbins.Chris@epa.gov>; Blackburn, Elizabeth <Blackburn.Elizabeth@epa.gov>; Walker, Mary <walker.mary@epa.gov>; Forsgren, Lee <Forsgren.Lee@epa.gov>; Best-Wong, Benita <Best-Wong.Benita@epa.gov>; Spraul, Greg <Spraul.Greg@epa.gov>; Stepp, Cathy <stepp.cathy@epa.gov>; Thiede, Kurt <thiede.kurt@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Baptist, Erik <baptist.erik@epa.gov>; Darwin, Henry <darwin.henry@epa.gov>; Palich, Christian <palich.christian@epa.gov>; Rodrick, Christian <rodrick.christian@epa.gov>; Ringel, Aaron <ringel.aaron@epa.gov>; Schwab, Justin <schwab.justin@epa.gov>; Konkus, John <konkus.john@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>; Block, Molly <block.molly@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Beach, Christopher <beach.christopher@epa.gov>; Levine, Carolyn <Levine.Carolyn@epa.gov>; Kaiser, Sven-Erik <Kaiser.Sven-Erik@epa.gov>; Moody, Christina <Moody.Christina@epa.gov>; Haman, Patricia <Haman.Patricia@epa.gov>; Jackson, Ryan <jackson.ryan@epa.gov>
Subject: ALL AAW QFRs - Program Office Designated

Hello All – Attached, please find the full list of questions from SEPW from Acting-Administrator Wheeler's hearing. Please work with your teams to provide draft responses and only send your final responses to Troy, Christian Palich, and me to make sure we are able to maintain an accurate master document.

For reference, here is the timeline we are following:

Please note that QFR responses will be due to OCIR by 10:00am on Wednesday, January 23.

Tentative QFR Timeline

- Friday, January 18: Expected date to receive QFRS from EPW
  - OCIR to assign QFRs to appropriate program offices based on subject matter.
  - Please alert OCIR immediately if you believe a specific QFR should be re-assigned to another program office
  - **Please send your program office's final responses to the QFRs to me, Christian Palich, and Tony Frye by Wednesday, January 232 at 10:00AM EST**
- Wednesday, January 23 EPA delivers QFRS to OMB for clearance
  - OCIR to deliver QFRS to OMB by 10:30AM EST
- Wednesday, January 23: OMB clearance process
  - OCIR and WH Legislative Affairs to facilitate a timely OMB clearance process.
- Thursday, January 24: OMB sends cleared QFRs to EPA. EPA submits to EPW

- OCIR to distribute QFRs needing edits/modifications to relevant program offices
- Final review of QFRS by Administrator Wheeler and Ryan Jackson
- OCIR to deliver finale QFRS to Senate EPW by COB

- Friday, January 25: Submission to EPW

Thank you again for your efforts.

Best,
Tony

Tony Frye
Special Advisor
Office of Congressional Affairs
Environmental Protection Agency
Cell: Personal cell / email

Message

From: Ringel, Aaron [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1654BDC951284A6D899A418A89FB0ABF-RINGEL, AAR]
Sent: 3/21/2019 7:03:55 PM
To: Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Molina, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c1d68da1a4587866e1850f22a6ae5-Molina, Mic]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Eby, Natasha [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d5c14481f6874e3aa434b3b01a4a2a7d-Eby, Natash]; Humphreys, Hayly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f4a7b4aeaf143bf806b0dd5b7884324-Humphreys,]; Greaves, Holly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=abcb6428b3df40a9a78b059a8ba59707-Greaves, Ho]; Hanson, Paige (Catherine) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=95adc1b2ac3b40ab9dc591801d594df8-Hanson, Cat]
CC: Rodrick, Christian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6515dbe46dae466da53c8a3aa3be8cc2-Rodrick, Ch]; Frye, Tony (Robert) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=58c08abdfc1b4129a10456b78e6fc2e1-Frye, Rober]
Subject: OCFO/OAR Budget Hearing Briefing Docs
Attachments: OAR.zip; OCFO.zip; 03-21-2019 - TOC for OAR-OCFO FY2020 Budget Hearing Fact Sheets.docx

All,

Please find attached the program fact sheets OCIR and OCFO have provided for the Administrator's review prior to his briefing with OCFO and OAR on Tuesday next week. Please let us know if you have any questions regarding these docs and we look forward to working with everyone as AW has questions or edits that he would like made prior to, and after, the briefing.

Best,
Aaron

Aaron E. Ringel
Deputy Associate Administrator
Office of Congressional & Intergovernmental Relations
U.S. Environmental Protection Agency

W: 202.564.4373
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Message

From: Pritchard, Eileen [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=A396601F910B4C528707D7D3BBEB197B-EPRITCH]
Sent: 4/30/2019 2:22:27 PM
To: Wheeler, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=17a1669ef5b54fba8cb457845308787e-Wheeler, An]; Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Shaw, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31ca1476a7674825a131cb2c0d6c88c8-BShaw03]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Bennett, Tate [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1fa92542f7ca4d01973b18b2f11b9141-Bennett, El]; White, Elizabeth [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f8af641a6306479c9026142ef3b02bd7-White, Eliz]; Bodine, Susan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8c2cc6086fcc44c3be6b5d32b262d983-Bodine, Sus]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Molina, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c1d68da1a4587866e1850f22a6ae5-Molina, Mic]; Darwin, Henry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ae8e9d24eeb4132b25982e358efbd9d-Darwin, Hen]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; Benevento, Douglas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=93dba0f4f0fc41c091499009a2676f89-Benevento,]
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Subject: SIGNED: Final Algonquin Gas Title V Petition Order (OAR-19-000-4257)

Attachments: Algonquin Gas Title V Order (002).pdf

Good morning,

Today, the Administrator signed an order which denies eight petitions and two letters received in September of 2015, filed by the Westchester County (NY) Board of Legislators, Grassroots Environmental Education, in the matter of Algonquin Gas Transmission LLC, Southeast and Stony Point Compressor Stations.

Today's order denies all of the claims either because they were not raised with reasonable specificity during the public comment period, and/or because the petitioners did not demonstrate that the permits do not comply with any requirements of the CAA. The two letters contain additional claims dealing with a state-only requirement that is not a proper subject of EPA review.

Attached is the signed and dated petition order. For your convenience, please go to **p. 25** for the Administrator's signature.

Please contact me if you have any questions regarding this email.

Eileen Pritchard
Special Assistant: Office of the Administrator
(202) 564-6578 (d)
pritchard.eileen@epa.gov

BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF	)	
	)	
ALGONQUIN GAS TRANSMISSION LLC	)	ORDER RESPONDING TO
	)	PETITIONS REQUESTING
SOUTHEAST COMPRESSOR STATION	)	OBJECTION TO THE ISSUANCE OF
PUTNAM COUNTY, NEW YORK	)	TITLE V OPERATING PERMITS
PERMIT NO. 3-3730-00060/00013	)	
	)	
STONY POINT COMPRESSOR STATION	)	
ROCKLAND COUNTY, NEW YORK	)	
PERMIT NO. 3-3928-00001/00027	)	
	)	
ISSUED BY THE NEW YORK STATE DEPARTMENT OF	)	
ENVIRONMENTAL CONSERVATION	)	
	)	

ORDER DENYING PETITIONS FOR OBJECTION TO PERMITS

I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) received eight petitions[1] asking EPA to object to operating permits issued by the New York State Department of Environmental Conservation (NYSDEC) to Algonquin Gas Transmission, LLC (Algonquin) for two natural gas compressor stations: (1) the Southeast Compressor Station, Permit No. 3-3730-00060/00013 (the Southeast Permit) and (2) the Stony Point Compressor Station, Permit No. 3-3928-00001/00027 (the Stony Point Permit) (collectively the Permits). The Permits are operating permits issued pursuant to title V of the Clean Air Act (CAA or the Act), §§ 501–507, 42 U.S.C. §§ 7661–7661f, and 6 New York Codes, Rules, and Regulations (NYCRR) § 201-6. *See also* 40 C.F.R. part 70 (title V

[1] The eight petitions are from: (1) the Westchester County Board of Legislators (Westchester), dated September 4, 2015 (the Westchester Petition); (2) Grassroots Environmental Education (Grassroots), dated September 4, 2015 (the Grassroots Petition); (3) Suzannah Glidden, dated September 4, 2015 (the Glidden Petition); (4) Berty Barranco-Feero, dated September 4, 2015; (5) Paola Dalle Carbonare, dated September 4, 2015; (6) Lorenzo Auslander, dated September 4, 2015; (7) Simone Auslander, dated September 4, 2015 (petitions (4), (5), (6), and (7) are substantively identical and are collectively referred to as the Barranco-Feero, Carbonare, and Auslander Petitions); and (8) Cari Gardner, dated September 3, 2015 (the Gardner Petition). EPA also received an email message from Paula Clair dated September 3, 2015 (the Clair Submittal) and a letter from Susan Van Dolsen dated September 3, 2015 (the Van Dolsen Submittal) relating to the Permits. The Clair and Van Dolsen Submittals do not appear to be petitions submitted under CAA § 505(b)(2) asking EPA to object to the Permits. Nonetheless, without waiving any claim that the Clair and Van Dolsen Submittals were not properly filed, EPA will respond to those Submittals here, in connection with its response to the eight Petitions, as if the Clair and Van Dolsen Submittals were petitions to object under CAA § 505(b)(2).

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implementing regulations). These operating permits are also referred to as title V permits or part 70 permits.

Based on a review of the Petitions and other relevant materials, including the Permits, the permit records, and relevant statutory and regulatory authorities, and as explained further below, EPA denies the Petitions requesting that the EPA Administrator object to the Permits.[2]

II. STATUTORY AND REGULATORY FRAMEWORK

A. Title V Permits

Section 502(d)(l) of the CAA, 42 U.S.C. § 766la(d)(1), requires each state to develop and submit to EPA an operating permit program to meet the requirements of title V of the CAA and EPA's implementing regulations at 40 C.F.R. part 70. The state of New York first submitted a title V program governing the issuance of operating permits in 1993, and EPA granted interim approval of the state's program in 1996. 61 Fed. Reg. 57589 (November 7, 1996). Following subsequent submissions, EPA granted full approval of New York's title V operating permit program in 2002. 67 Fed. Reg. 5216 (February 5, 2002). This program, which became effective on January 31, 2002, is codified in 6 NYCRR 201-6.

All major stationary sources of air pollution and certain other sources are required to apply for and operate in accordance with title V operating permits that include emission limitations and other conditions as necessary to assure compliance with applicable requirements of the CAA, including the requirements of the applicable implementation plan. CAA §§ 502(a), 503, 504(a), 42 U.S.C. §§ 7661a(a), 7661b, 7661c(a). The title V operating permit program generally does not impose new substantive air quality control requirements, but does require permits to contain adequate monitoring, recordkeeping, reporting, and other requirements to assure compliance with applicable requirements. 57 Fed. Reg. 32250, 32251 (July 21, 1992); *see* CAA § 504(c), 42 U.S.C. § 7661c(c). One purpose of the title V program is to "enable the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements." 57 Fed. Reg. at 32251. Thus, the title V operating permit program is a vehicle for compiling the air quality control requirements as they apply to the source's emission units and for providing adequate monitoring, recordkeeping, and reporting to assure compliance with such requirements.

B. Review of Issues in a Petition

State and local permitting authorities issue title V permits pursuant to their EPA-approved title V programs. Under CAA § 505(a), 42 U.S.C. § 7661d(a), and the relevant implementing regulations found at 40 C.F.R. § 70.8(a), states are required to submit each proposed title V operating permit to EPA for review. Upon receipt of a proposed permit, EPA has 45 days to object to final issuance of the proposed permit if EPA determines that the proposed permit is not in compliance with applicable requirements under the Act. CAA § 505(b)(1), 42 U.S.C. § 7661d(b)(1); *see also* 40 C.F.R. § 70.8(c). If EPA does not object to a permit on its own

[2] To the extent the Clair and Van Dolsen Submittals could be considered petitions requesting an EPA objection to the Permits, EPA also denies those Submittals.

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initiative, any person may, within 60 days of the expiration of EPA's 45-day review period, petition the Administrator to object to the permit. CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

The petition shall be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided by the permitting authority (unless the petitioner demonstrates in the petition to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objection arose after such period). CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). In response to such a petition, the Act requires the Administrator to issue an objection if a petitioner demonstrates that a permit is not in compliance with the requirements of the Act. CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1).[3] Under section 505(b)(2) of the Act, the burden is on the petitioner to make the required demonstration to EPA.[4]

The petitioner's demonstration burden is a critical component of CAA § 505(b)(2). As courts have recognized, CAA § 505(b)(2) contains both a "discretionary component," under which the Administrator determines whether a petition demonstrates that a permit is not in compliance with the requirements of the Act, and a nondiscretionary duty on the Administrator's part to object where such a demonstration is made. *Sierra Club v. Johnson*, 541 F.3d at 1265–66 ("[I]t is undeniable [that CAA § 505(b)(2)] also contains a discretionary component: it requires the Administrator to make a judgment of whether a petition demonstrates a permit does not comply with clean air requirements."); *NYPIRG*, 321 F.3d at 333. Courts have also made clear that the Administrator is only obligated to grant a petition to object under CAA § 505(b)(2) if the Administrator determines that the petitioner has demonstrated that the permit is not in compliance with requirements of the Act. *Citizens Against Ruining the Environment*, 535 F.3d at 677 (stating that § 505(b)(2) "clearly obligates the Administrator to (1) determine whether the petition demonstrates noncompliance and (2) object *if* such a demonstration is made" (emphasis added)).[5] When courts have reviewed EPA's interpretation of the ambiguous term "demonstrates" and its determination as to whether the demonstration has been made, they have applied a deferential standard of review. *See, e.g.*, *MacClarence*, 596 F.3d at 1130–31.[6] Certain aspects of the petitioner's demonstration burden are discussed below. A more detailed discussion can be found in *In the Matter of Consolidated Environmental Management, Inc., Nucor Steel Louisiana*, Order on Petition Nos. VI-2011-06 and VI-2012-07 at 4–7 (June 19, 2013) (*Nucor II Order*).

EPA considers a number of criteria in determining whether a petitioner has demonstrated noncompliance with the Act. *See generally Nucor II Order* at 7. For example, one such criterion

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[3] *See also New York Public Interest Research Group, Inc. v. Whitman*, 321 F.3d 316, 333 n.11 (2d Cir. 2003) *(NYPIRG)*.

[4] *WildEarth Guardians v. EPA*, 728 F.3d 1075, 1081–82 (10th Cir. 2013); *MacClarence v. EPA*, 596 F.3d 1123, 1130–33 (9th Cir. 2010); *Sierra Club v. EPA*, 557 F.3d 401, 405–07 (6th Cir. 2009); *Sierra Club v. Johnson*, 541 F.3d 1257, 1266–67 (11th Cir. 2008); *Citizens Against Ruining the Environment v. EPA*, 535 F.3d 670, 677–78 (7th Cir. 2008); *cf. NYPIRG*, 321 F.3d at 333 n.11.

[5] *See also Sierra Club v. Johnson*, 541 F.3d at 1265 ("Congress's use of the word 'shall' . . . plainly mandates an objection *whenever* a petitioner demonstrates noncompliance." (emphasis added)).

[6] *See also Sierra Club v. Johnson*, 541 F.3d at 1265–66; *Citizens Against Ruining the Environment*, 535 F.3d at 678.

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is whether the petitioner has addressed the state or local permitting authority's decision and reasoning. EPA expects the petitioner to address the permitting authority's final decision, and the permitting authority's final reasoning (including the state's response to comments), where these documents were available during the timeframe for filing the petition. *See MacClarence*, 596 F.3d at 1132–33.[7] Another factor EPA examines is whether a petitioner has provided the relevant analyses and citations to support its claims. If a petitioner does not, EPA is left to work out the basis for the petitioner's objection, contrary to Congress's express allocation of the burden of demonstration to the petitioner in CAA § 505(b)(2). *See MacClarence*, 596 F.3d at 1131 ("[T]he Administrator's requirement that [a title V petitioner] support his allegations with legal reasoning, evidence, and references is reasonable and persuasive.").[8] Relatedly, EPA has pointed out in numerous previous orders that general assertions or allegations did not meet the demonstration standard. *See, e.g., In the Matter of Luminant Generation Co., Sandow 5 Generating Plant*, Order on Petition Number VI-2011-05 at 9 (January 15, 2013) (*Luminant Sandow Order*).[9] Also, the failure to address a key element of a particular issue presents further grounds for EPA to determine that a petitioner has not demonstrated a flaw in the permit. *See, e.g., In the Matter of EME Homer City Generation LP and First Energy Generation Corp.*, Order on Petition Nos. III-2012-06, III-2012-07, and III-2013-02 at 48 (July 30, 2014).[10]

The information that EPA considers in making a determination whether to grant or deny a petition submitted under 40 C.F.R. § 70.8(d) on a proposed permit generally includes, but is not limited to, the administrative record for the proposed permit and the petition, including attachments to the petition. The administrative record for a particular proposed permit includes the draft and proposed permits; any permit applications that relate to the draft or proposed permits; the statement of basis for the draft and proposed permits; the permitting authority's written responses to comments, including responses to all significant comments raised during the public participation process on the draft permit; relevant supporting materials made available to the public according to 40 C.F.R. § 70.7(h)(2); and all other materials available to the permitting authority that are relevant to the permitting decision and that the permitting authority made available to the public according to § 70.7(h)(2). If a final permit and a statement of basis for the final permit are available during the agency's review of a petition on a proposed permit, those

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[7] *See also, e.g., Finger Lakes Zero Waste Coalition v. EPA*, 734 Fed. Appx. *11, *15 (2d Cir. 2018); *In the Matter of Noranda Alumina, LLC*, Order on Petition No. VI-2011-04 at 20–21 (December 14, 2012) (denying a title V petition issue where petitioners did not respond to the state's explanation in response to comments or explain why the state erred or the permit was deficient); *In the Matter of Kentucky Syngas, LLC*, Order on Petition No. IV-2010-9 at 41 (June 22, 2012) (denying a title V petition issue where petitioners did not acknowledge or reply to the state's response to comments or provide a particularized rationale for why the state erred or why the permit was deficient); *In the Matter of Georgia Power Company*, Order on Petitions at 9–13 (January 8, 2007) (*Georgia Power Plants Order*) (denying a title V petition issue where petitioners did not address a potential defense that the state had pointed out in the response to comments).

[8] *See also In the Matter of Murphy Oil USA, Inc.*, Order on Petition No. VI-2011-02 at 12 (September 21, 2011) (denying a title V petition claim where petitioners did not cite any specific applicable requirement that lacked required monitoring); *In the Matter of Portland Generating Station*, Order on Petition at 7 (June 20, 2007) (*Portland Generating Station Order*).

[9] *See also Portland Generating Station Order* at 7 ("[C]onclusory statements alone are insufficient to establish the applicability of [an applicable requirement]."); *In the Matter of BP Exploration (Alaska) Inc., Gathering Center #1*, Order on Petition Number VII-2004-02 at 8 (April 20, 2007); *Georgia Power Plants Order* at 9–13; *In the Matter of Chevron Products Co., Richmond, Calif. Facility*, Order on Petition No. IX-2004–10 at 12, 24 (March 15, 2005).

[10] *See also In the Matter of Hu Honua Bioenergy*, Order on Petition No. IX-2011-1 at 19–20 (February 7, 2014); *Georgia Power Plants Order* at 10.

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documents may also be considered as part of making a determination whether to grant or deny the petition.

III. BACKGROUND

A. The Algonquin Southeast and Stony Point Facilities

At issue in this Order are permit actions related to Algonquin's (formerly a subsidiary of Spectra Energy; now a subsidiary of Enbridge Inc.) Algonquin Incremental Market (AIM) Project, which involves the expansion of its existing natural gas transmission pipeline system across various states in the Northeastern United States. Among other aspects of the AIM Project, Algonquin proposed to modify various natural gas compression stations to increase pipeline size and horsepower, two of which are implicated by the petitions addressed in this Order: the Southeast compressor station, and the Stony Point compressor station.

The Southeast compressor station is located in Brewster, Putnam County, New York. As part of the AIM Project, Algonquin proposed modifications to the Southeast facility including, among other things: the addition of one new natural-gas fired turbine-driven compressor, one new gas-fired emergency generator, one new gas-fired fuel gas heater, and one new gas cooler. In addition to the AIM project modifications, Algonquin also proposed to install one new gas-fired turbine-driven compressor, shut down one existing gas-fired compressor, and make other modifications to other existing equipment stacks. Collectively, these modifications were not considered major modifications for New Source Review (NSR) purposes.

The Stony Point compressor station is located in Stony Point, Rockland County, New York. As part of the AIM Project, Algonquin proposed to modify the Stony Point facility, including the addition of two new natural gas-fired turbine-driven compressor units, one new gas-fired emergency generator, two new gas-fired heaters, and a new gas cooler. In addition to the AIM Project modifications, Algonquin also proposed the following modifications: the permanent shutdown of one existing gas-fired turbine-driven compressor, four existing reciprocating engines, and a boiler, the addition of a new gas-fired turbine-driven compressor and other equipment, and the modification of other units. Collectively, these modifications were not considered major modifications for NSR purposes.

Various emission units at the Southeast and Stony Point facilities emit air pollutants, including, among others, carbon monoxide (CO), nitrogen oxides (NOx), volatile organic compounds (VOC), hazardous air pollutants (HAP), and greenhouse gases (GHG). Both facilities are subject to requirements based on New Source Performance Standards (NSPS) and State Implementation Plan (SIP) provisions. These requirements are contained in the sources' title V permits.

B. Permitting History

Both the Southeast and Stony Point title V permit modifications[11] were processed by NYSDEC on the same timeline. NYSDEC released draft title V permit modifications on December 31, 2014, subject to a public comment period that ended February 27, 2015. By letter dated May 12,

[11] The modifications to the Southeast Permit were processed at the same time as its title V permit renewal.

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2015, NYSDEC transmitted to EPA proposed title V permit modifications (Proposed Permits), along with a document containing its response to public comments (RTC). EPA's 45-day review of the proposed permits ended on July 6, 2015, during which time EPA did not object to the permits. NYSDEC finalized the Permits on July 15, 2015.

C. Timeliness of Submittals

Pursuant to the CAA, if EPA does not object to a proposed permit during its 45-day review period, any person may petition the Administrator within 60 days after the expiration of the 45-day review period to object. 42 U.S.C § 7661d(b)(2). EPA's 45-day review period expired on July 6, 2015. Thus, any petitions seeking EPA's objection to the Proposed Permits were due on or before September 4, 2015. Each of the petitions was dated either September 3, 2015, or September 4, 2015, and was timely filed.[12]

IV. THE WESTCHESTER PETITION

Claim I: Westchester's Claim That "The proposed final Title V permits do not adequately assess the health risk caused by air pollutants emitted from the compressor stations, and a comprehensive determination of baseline air emissions and air-related health impacts should be required."[13]

Westchester's Claim: Westchester contends that the Southeast and Stony Point Permits do not adequately assess health risks associated with compressor station emissions. Westchester Petition at 2. Westchester makes various assertions related to the lack of information regarding radioactive or hazardous constituents of gas processed by the compressor stations. *See id.* at 2–3. To address this uncertainty, Westchester states that "the Title V permit conditions must be based on a comprehensive determination of baseline emissions from the compressor stations as well as proper evaluation of health impacts." *Id.* at 3.

Westchester asserts that the title V permit applications for the Southeast and Stony Point facilities "do not provide the comprehensive characterization that is needed to quantify potential emissions from the compressor stations." *Id.* Westchester specifically criticizes the use of AP-42 emission factors last revised in 2000 and reliance on an analysis taken from Thomaston, Texas in 2005. *See id.*

Westchester also challenges various aspects of NYSDEC's air quality dispersion modeling. *See id.* at 4–7. Westchester asserts that the ambient air quality data for NO_2, which was based on a monitoring station located in Lackawanna, Pennsylvania, is not representative of the air quality in the vicinity of these compressor stations. *See id.* at 4–5. Westchester also challenges the exclusion of HAP emissions from blowdowns and fugitive emissions from the dispersion

[12] The Clair Submittal and the Van Dolsen Submittal were both dated September 3, 2015. *See supra* note 1.
[13] Claim I of the Westchester Petition includes three separately enumerated subclaims: "a. The ambient air quality data for nitrogen dioxide . . . is not representative of the vicinity of the compressor stations;" "b. Blow down emissions and fugitive emissions are not included in the dispersion modeling analyses;" and "c. Existing emission sources are not included in the dispersion modeling of toxic compounds." All of these subclaims are collectively addressed below.

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modeling analysis, claiming that the modeling analysis did not properly predict the impacts of toxic emissions from these sources. *See id.* at 5–6. Specifically, Westchester expresses concerns that reported emissions during blowdowns have varied widely during the last 10 years, and questions NYSDEC's estimates of blowdown emissions and associated health impacts. *See id.* at 6. Westchester further criticizes the omission of HAP emissions from existing sources, and from exempt or trivial sources, from the modeling NYSDEC conducted. *See id.* at 6–7.

EPA's Response: For the following reasons, EPA denies Westchester's request for an objection on this claim.

As discussed in Section II.B of this Order, the CAA places a burden on petitioners to demonstrate that a permit is not in compliance with the requirements of the Act or of the requirements under 40 C.F.R. part 70. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(l). Westchester has failed to do so here.

Numerous public commenters requested that NYSDEC conduct an assessment of baseline emissions and health impacts associated with the modifications to the Southeast and Stony Point Permits. In responding to these comments, NYSDEC explained:

> Neither an independent air emissions baseline assessment nor a health impact assessment is required in order for the NYSDEC to issue the Title V air permit modifications because the AIM Project complies with all applicable federal and state regulations, which have been established to protect public health and safety. All applicable requirements are included in the Title V permits for the Southeast and Stony Point compressor stations.

RTC at 1. Westchester failed to acknowledge or rebut this explanation.[14]

As a general matter, title V permits are not required to contain such health impacts analyses; nor has Westchester demonstrated, here, that such an analysis is a precondition to the issuance of these title V permits. Rather, title V permits are a vehicle for collecting and consolidating in a single document all federally-enforceable applicable requirements that apply to a source, and for ensuring that these requirements are supported by adequate monitoring, recordkeeping, and reporting conditions. *See, e.g.*, 40 C.F.R. § 70.l(b); 57 Fed. Reg. 32250, 32251 (July 21, 1992). Although Westchester (and other members of the public) may desire a more thorough analysis of the health impacts associated with the Southeast and Stony Point modifications, they have not demonstrated that such an analysis is required by law. Westchester has not cited any applicable CAA requirement that would require "a comprehensive determination of baseline emissions," or an evaluation of the health impacts of the current project in the current title V permits. Thus, Westchester has failed to demonstrate that the Southeast and Stony Point Permits do not comply with the Act based on the lack of such a determination or evaluation, and Westchester's claims present no basis for EPA to object to the Permits.

Regarding Westchester's general criticisms of the emission calculations contained in the Southeast and Stony Point permit applications, Westchester has similarly failed to demonstrate

[14] *See supra* note 7 and accompanying text.

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any basis for an EPA objection. Westchester has not provided any citation to or analysis of requirements related to emission estimates in permit applications, nor has Westchester demonstrated why the estimates provided for the Southeast and Stony Point Permits ran afoul of these requirements.[15]

Westchester also has not demonstrated that any issues related to air quality dispersion modeling caused the Permits to violate any applicable requirements. Westchester has provided no citation or analysis of applicable requirements that would require such modeling,[16] nor any analysis of how such requirements were violated due to purported flaws or discrepancies with such modeling.

In summary, none of the issues raised in Claim I of the Westchester Petition demonstrate that the Southeast or Stony Point Permits are not in compliance with applicable requirements of the CAA. 42 U.S.C. 7661d(b)(2). For the foregoing reasons, EPA denies Westchester's request for an objection on this claim.

Claim II: Westchester's Claim That "The proposed final Title V permits do not adequately monitor fugitive emissions, including [HAPs] and [VOCs], from the compressor stations."

Westchester's Claim: Westchester contends that the title V permits must include monitoring of all fugitive emissions. Westchester Petition at 7. Westchester asserts that the Stony Point Permit only requires monitoring and reporting of fugitives from new components, and the Southeast Permit does not require any monitoring or reporting of fugitive emissions from either new or existing components. *Id.* Westchester asserts that quantifying fugitive emissions is important for evaluating air quality and climate change impacts, and therefore suggests that the title V permits should require enforceable conditions requiring monitoring of all fugitive emissions, with NYSDEC oversight over the method used to determine emissions. *Id.* at 8.

With respect to the Stony Point Permit, Westchester argues that data on emissions from exempt sources, including fugitive piping emissions and gas releases, should be submitted on a rolling 12-month basis, rather than an annual submission of a summary of emissions. *Id.* at 7–8 (citing Stony Point Proposed Permit Item 1-21.2). Westchester asserts that this should be required because exempt sources (including fugitive piping emissions and gas releases) constitute the majority of allowed VOC emissions at the facility. *Id.* at 8. Westchester also claims that the fugitive emissions from piping components and VOC emissions from gas releases should not be considered "exempt sources." *See id.* (citing 6 NYCRR 201-3.2, 3.3).

Westchester presents various options related to the monitoring of fugitive emissions. Westchester discusses how Algonquin has previously quantified fugitive emissions in its annual emissions

[15] EPA has discussed these permit application requirements, and the burden on petitioners to demonstrate a flaw with respect to these requirements, in another recent title V petition order. *See, e.g., In the Matter of Superior Silica Sands and Wisconsin Proppants, LLC*, Order on Petition Nos. V-2016-18 & V-2017-2 at 7–12 (Feb. 26, 2018); *see also supra* note 8 and accompanying text.

[16] Notably, as EPA has previously explained, there are no federal requirements associated with the modeling of HAP emissions. *See, e.g., In the Matter of Waupaca Foundry, Inc. Plant 1*, Order On Petition No. V-2015-02 at 8–9 (July 14, 2016).

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statements, contrasting the approaches used in the Southeast and Stony Point statements. *See id.* Additionally, Westchester cites a then-proposed EPA rule regulating oil and gas emissions, while acknowledging that facilities would not be obligated to perform the monitoring of fugitives specified in this rule unless and until the rule was finalized and the requirements were incorporated into the title V permits. *Id.* at 9. Westchester also generally refers to various remote measurement methods, including thermal imaging infrared cameras, that could be used to monitor fugitive emissions, which Westchester suggests could be used to monitor and report on GHG and fugitive emissions. *See id.*

EPA's Response: For the following reasons, EPA denies Westchester's request for an objection on this claim.

As a threshold requirement to submitting a title V petition, the CAA requires that:

> The petition shall be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided by the permitting agency (unless the petitioner demonstrates in the petition to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objection arose after such period).

42 U.S.C. § 7661d(b)(2); *see also* 40 C.F.R. § 70.8(d). As EPA has explained:

> EPA believes that Congress did not intend for petitioners to be allowed to create an entirely new record before the Administrator that the State has had no opportunity to address. Accordingly, the Agency believes that the requirement to raise issues "with reasonable specificity" places a burden on the petitioner, absent unusual circumstances, to adduce before the State the evidence that would support a finding of noncompliance with the Act.

56 Fed. Reg. 21712, 21750 (May 10, 1991); *see also, e.g.*, *In the Matter of Phillips 66 San Francisco Refinery*, Order on Petition No. IX-2018-4 at 7–10 (August 8, 2018); *Luminant Sandow Order* at 5–6.

Here, the claims raised in the Westchester Petition regarding the monitoring or reporting of fugitive emissions, and the assertion that certain fugitive emissions should not be considered "exempt sources," were not raised during the public comment period with reasonable specificity. Some public comments briefly discussed fugitive emissions in a general sense, including the health impacts of fugitive emissions as well as concerns with understanding the quantity of fugitive emissions from the facilities. *See, e.g.*, RTC at 11 (summarizing and responding to comments claiming that "[t]here is no way of knowing the volume, frequency and content of blowdown, fugitive emissions, and emissions from pigging stations to determine their safety"). Additionally, some commenters raised questions inquiring why certain emission units (notably, not the fugitive sources at issue in this claim) were classified as exempt sources. *E.g.*, Comments of Susan Van Dolsen (February 27, 2015). However, no commenters raised the specific issues raised in Claim II, which assert the need for enforceable permit terms establishing monitoring of fugitive emissions from certain sources at either Southeast or Stony Point, and challenge to the

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propriety of classifying certain fugitive emissions as exempt. Thus, these claims were not raised with reasonable specificity during the public comment period and cannot now be raised in a title V petition. There is no basis for determining that the issues arose after the public comment period, and Westchester has not attempted to demonstrate that it was impracticable to raise these issues during the public comment period.[17]

Even if these issues had been raised with reasonable specificity during the public comment period, Westchester has not met its burden of demonstrating that the permits are not in compliance with the CAA. The CAA requires that each title V permit shall include conditions "necessary to assure compliance with applicable requirements" of the CAA, and shall set forth monitoring requirements "to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(a), (c). Thus, in order to present grounds for an EPA objection on a claim alleging the need for additional monitoring, recordkeeping, or reporting, a petitioner must demonstrate that the current permit requirements are not sufficient to assure compliance with a particular applicable requirement or permit term. The adequacy of monitoring in a title V permit is a highly fact-specific inquiry. *See, e.g.*, *In the Matter of CITGO Refining and Chemicals Co. L.P.*, Order on Petition No. VI-2007-01 at 6–8 (May 28, 2009) (describing a non-exhaustive list of factors relevant to the sufficiency of monitoring). Here, Westchester has not provided the requisite citation or analysis to demonstrate that the current permit terms are insufficient. Westchester has not identified any applicable requirements or permit terms related to fugitive emissions for which the Southeast or Stony Point Permits do not contain adequate monitoring, nor has Westchester provided any analysis demonstrating why existing monitoring provisions are inadequate. Thus, Westchester has failed to demonstrate that the title V permits do not contain monitoring to assure compliance with all applicable requirements or permit terms. Westchester's claims, therefore, present no basis for an EPA objection.

For the foregoing reasons, EPA denies Westchester's request for an objection on this claim.

[17] Westchester suggests that it was impracticable for one of the individual Westchester County Legislators—Legislator Cole—to provide comments in an official capacity during the public comment period, given that this legislator was appointed after the end of the comment period. Westchester Petition at 1. However, this misses the point: the question is not whether it was impracticable for a given *person* to raise issues during the comment period, but whether it generally was impracticable to raise certain *issues* during the comment period. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. §70.8(d); *see* 81 Fed. Reg. 57822, 57828 (August 24, 2016). Here, Westchester has made no showing that it was impracticable for the other Legislators, or other persons, to raise the issues associated with Claim II (or other claims discussed below) during the comment period. To the contrary, Westchester's statement suggests that—but for the fact that Legislator Cole was not appointed until after June 2015—it *would* have been practicable for him to raise the issues, "in an official capacity," during the comment period. Moreover, even with the misplaced focus on the practicability of a given person raising issues during the comment period, Westchester makes no showing that it was impracticable for Legislator Cole to raise issues during the comment period in a personal or "unofficial capacity," but only that it was impracticable for him to raise the issues in an "official capacity." Again, such an assertion misses the point and is no basis for determining that it was impracticable to raise certain issues during the comment period.

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Claim III: Westchester's Claim That "The proposed final Title V permits do not adequately monitor blow down emissions, including HAPs and VOCs, from the compressor stations."

Westchester's Claim: Westchester claims that the Southeast and Stony Point Permits must include monitoring and reporting of emissions from blowdown events (i.e., releases of gas) from all sources emissions (both existing and new). Westchester Petition at 9. Westchester states that the Stony Point permit requires limited monitoring of gas releases from only new emission units (not existing units), and that the Southeast permit contains no monitoring for blowdowns from either new or existing units. *Id.* at 10 (citing Stony Point Proposed Permit Item 1-21.2). Westchester contends: "In order to properly assure permit compliance, the annual submission of blowdown emissions should consist of rolling 12-month averages throughout the calendar year to properly monitor these emissions." *Id.* at 10.

Westchester also asserts that the title V permits should require Algonquin to notify NYSDEC of any planned or unplanned release of natural gas, not just releases greater than 1 MMscf, as the Permits currently require. *Id.* at 9, 10 (citing Southeast Proposed Permit Item 22.2; Stony Point Proposed Permit Item 1-13.2); Westchester argues that the 1 MMscf value is too high and will result in the underreporting of gas releases. *Id.* at 10. Westchester additionally asserts that Algonquin should be required to notify the applicable County Health Department and host municipality 48 hours prior to a planned gas release, and within 24 hours of an unplanned release. *Id.* at 10.

Westchester claims that "[t]he Title V permits should set specific requirements to regulate the blowdown (gas release) events, as the events occur regularly at the compressor stations and yield substantial emissions." *Id.* at 10. Westchester claims that reported health impacts associated with blowdown emissions underscore the need to regulate these emissions. *Id.* at 11.

Westchester discusses the reporting of apparent blowdown emissions from the Southeast facility and claims that there must be an error in reporting due to discrepancies between VOC and methane emissions from the same units. *See id.* at 11. Westchester also claims that there are no emission units associated with blowdown events from the Stony Point facility, which Westchester asserts is surprising. *Id.* Westchester criticizes various aspects of the estimates of blowdown emissions in the Southeast and Stony point permit applications, including the use of data from a 2005 analysis of gas from Thomaston, Texas, the lack of estimates for HAP other than BTEX compounds, and the apparent calculation of continuous releases. *See id.* at 11.

Westchester also discusses (in both Claim III and Claim V) available approaches for reducing methane emissions from blowdown events, including best practices from EPA's Natural Gas STAR Partners program. *Id.* at 11. Westchester faults the omission of these approaches in the Stony Point draft greenhouse gas best available control technology analysis and suggests that the title V permits should require Algonquin to re-route blowdown gas rather than venting it to the atmosphere. *Id.* at 12, 14.

EPA's Response: For the following reasons, EPA denies Westchester's request for an objection on this claim.

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As discussed above with respect to Claim II, Westchester's specific claims regarding the purported need for additional monitoring or more frequent compliance reporting for blowdown emissions, or for additional enforceable restrictions on blowdowns, were not raised with reasonable specificity during the public comment period, and Westchester has not demonstrated that it was impracticable to do so.[18] Accordingly, these claims cannot now be raised in this title V petition. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

Additionally, even if these issues had been raised, and to the extent certain other issues within Claim III of the Westchester Petition might be said to have been raised with reasonable specificity during the comment period,[19] Westchester has not met its burden to demonstrate that the Permits are not in compliance with CAA requirements.

As discussed above with respect to Claim II, in order to present grounds for an EPA objection on a claim alleging the need for additional monitoring, a petitioner must demonstrate that the current monitoring, recordkeeping, and reporting requirements are not sufficient to assure compliance with a particular applicable requirement or permit term. 42 U.S.C. § 7661c(a), (c). Here, again, Westchester has provided no citation to any applicable requirements or permit terms related to blowdown emissions for which the current permit must include additional monitoring. Thus, Westchester has failed to demonstrate that additional monitoring of blowdowns (e.g., from all Southeast units or existing Stony Point units) or more frequent reporting of blowdowns (e.g., on a rolling 12-month basis) is necessary to assure compliance with any particular applicable requirements or permit terms.

Westchester has failed to demonstrate that any additional enforceable restrictions on blowdown emissions must be added to the Permits, as Westchester has provided no citation to or analysis of any applicable legal requirements that would give rise to such restrictions. Contrary to Westchester's suggestion, potential health impacts from a particular type of emissions activity do not, in and of themselves, give rise to title V applicable requirements. Rather, title V permit terms are based on applicable CAA requirements (including EPA-approved SIP requirements) that apply to given emission units and activities.

Regarding Westchester's request for more frequent notifications of planned and unplanned blowdowns (which, along with the claims addressed below, *was* raised to some extent during the

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[18] Some public comments briefly discussed blowdown emissions in a general sense, including the health impacts of blowdown emissions as well as concerns with understanding the quantity of blowdown emissions from the facilities. *See, e.g.*, RTC at 11. However, like the concerns regarding the monitoring of fugitive emissions discussed in EPA's response to Westchester Claim II, the specific claims now articulated in the petition regarding: (1) the need for enforceable permit terms governing blowdown emissions, (2) the need to add monitoring for blowdown emissions from all Southeast units, and from existing Stony Point units, and (3) the need to increase the reporting frequency of blowdown emissions to a 12-month rolling average, were not raised to NYSDEC in public comments.

[19] As noted, claims by Westchester relating to the need for additional blowdown monitoring or more frequent compliance reporting for blowdown emissions, or for additional enforceable restrictions on blowdowns, were not raised with reasonable specificity during the public comment period. Other blowdown-related claims by Westchester arguably were raised to some extent during the public comment period, including the request for more frequent notice of blowdown events; the manner of estimating or reporting blowdown emissions; and whether blowdown emissions could be controlled by re-routing such emissions or other alleged "best practices."

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public comment period), Westchester has not demonstrated that this is required by any applicable CAA requirement, or that current permit terms do not comply with applicable requirements. Westchester also did not address NYSDEC's response to comment document on this point (which, among other things, explained that "Department Staff has revised the draft Title V air permits for both the Southeast and Stony Point Compressor Stations and has incorporated additional language in both permits which requires notification of both planned and unplanned gas releases") or explain why it was unreasonable or failed to comply with the Act. RTC at 8.[20] In addition, Westchester provides no explanation of how the manner in which blowdown emissions were estimated or reported by the Southeast or Stony Point facilities, *see* Westchester Petition at 11, was improper or shows that the Permits do not comply with applicable requirements of the Act. Similarly, Westchester has not demonstrated that the best practices for minimizing methane emissions by re-routing blowdown gases, *see id.*, are mandated by applicable requirements of the Act. Rather, as NYSDEC explained, EPA's Natural Gas STAR partners program is a voluntary program, not a source of regulatory requirements that must be included in a title V permit. *See* RTC at 4. Westchester failed to acknowledge or rebut this explanation.[21]

In summary, none of the assertions regarding blowdown emissions demonstrate that the Permits do not assure compliance with any applicable requirement. For all the foregoing reasons, EPA denies Westchester's request for an objection on this claim.

Claim IV: Westchester's Claim That "The proposed final Title V permits do not contain proper emissions limits for [CO] emissions or VOC emissions from the natural gas-fired turbines."

Westchester's Claim: Westchester challenges CO emission limits on the three new natural gas-fired turbines at the Stony Point facility.[22] Westchester asserts that in order for Stony Point to avoid PSD applicability, an oxidation catalyst must provide a 95% CO reduction efficiency on the turbines. Westchester Petition at 12. Westchester claims that the Stony Point Permit must contain a CO limit based on 95% reduction efficiency by the catalyst emissions (rather than based on a manufacturer guarantee that does not include the oxidation catalyst), which Westchester asserts should be 0.4 lb/hr, or 2.79 lb/MMscf. *Id.* (citing Stony Point Proposed Permit Item 1-39.7).

Westchester also questions the 0.5 lb/hr VOC emission limit that applies to each of the three new Stony Point turbines. *Id.* at 12 (citing Stony Point Proposed Permit Item 1-15.2). Westchester suggests that this limit should be expressed as 3.49 lb/MMscf, to be consistent with an emission factor used in a later permit term. *Id.* (citing Stony Point Proposed Permit Item 1-21.2). Westchester also notes that the current permit limit is higher than the AP-42 emission factor for natural gas-fired turbine VOC emissions. *Id.* Westchester states that the upper permit limit should be set at the lower of the AP-42 emission factor or the manufacturer guarantee. *Id.* at 12–13. Westchester asserts that the new turbines should be capable of meeting the AP-42 emission

[20] *See supra* note 7 and accompanying text.
[21] *See supra* note 7 and accompanying text.
[22] Claim IV of the Westchester Petition only expressly relates to the Stony Point Permit.

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factor, and notes that a PM limit in the Stony Point permit was based on an AP-42 emission factor, rather than a higher manufacturer's guarantee. *Id.* at 13.

Westchester explains that the upper permit limits for CO and VOC are based on an oxidation catalyst functioning at a 95% and 50% reduction efficiency, respectively. *Id.* Given that emissions testing of CO and VOC may occur only once per permit term, Westchester claims that the title V permit should additionally require Stony Point to submit annual reports on the condition and performance of the catalyst. *Id.*

EPA's Response: For the following reasons, EPA denies Westchester's request for an objection on this claim.

The issues related to the CO and VOC emission limits on the new turbines at the Stony Point facility, or the need for more frequent reporting on the condition of the oxidation catalyst, were not raised with reasonable specificity during the public comment period, and Westchester has not demonstrated that it was impracticable to do so. As discussed above with respect to Claim II, such claims cannot now be raised in this title V petition. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

Additionally, even if these issues had been raised with reasonable specificity during the comment period, Westchester has not met its burden of demonstrating that the Stony Point Permit does not comply with the requirements of the Act. Westchester has not provided any citation to legal authority that would mandate emission limits different than those currently included in the title V permit, nor has Westchester demonstrated that these existing limits run afoul of any CAA requirements.

Regarding the claims concerning the purported need for additional reporting of the condition of CO and VOC oxidation catalyst, Westchester has failed to demonstrate that this is necessary to assure compliance with any permit term. Notably, although Westchester broadly asserts the importance of the oxidation catalyst functioning as estimated, Westchester presents no basis for its claim that annual reporting of the condition of the catalyst is necessary to assure that the catalyst is functioning as estimated, nor why the current permit requirements requiring testing once per permit term is inadequate. Westchester's generic allegations, unsupported by citation and analysis, do not demonstrate a flaw in the permit.[23]

For the foregoing reasons, EPA denies Westchester's request for an objection on this claim.

Claim V: Westchester's Claim that "The proposed final Title V permit for the Stony Point compressor station does not properly monitor [GHG] emissions)."

Westchester's Claim: Westchester states that the Stony Point Permit does not contain an enforceable condition on GHG emissions. Westchester Petition at 13. Westchester discusses aspects of the Stony Point application that proposed BACT emission limits for GHG emissions and states that the Permit did not contain such a condition. *Id.* Westchester indicates that, in its response to comments, NYSDEC stated that it had discretion not to require a PSD permit based

[23] *See supra* notes 8, 9, and accompanying text.

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solely on potential GHG emissions. *Id.* Nonetheless, Westchester asserts that the Stony Point and Southeast Permits[24] should require monitoring, recordkeeping, and reporting of carbon dioxide equivalent (CO2e) emissions on an annual rolling average basis, as stated in the Stony Point application. *Id.* at 14.[25]

EPA's Response: For the following reasons, EPA denies Westchester's request for an objection on this claim.

Westchester has provided no citation to an applicable CAA requirement that would necessitate the inclusion of an enforceable condition limiting GHG emissions in either the Stony Point or Southeast Permits. Westchester's discussion of draft GHG BACT limits and monitoring conditions proposed in the Stony Point permit application is immaterial, given that these conditions were never finalized and are therefore not applicable requirements that must be included in the current title V permit. *See* RTC at 6–7 (explaining the basis for NYSDEC's decision not to issue a PSD permit—which would have been the basis for the BACT conditions referenced by Westchester—on the basis of the sources' GHG emissions). In the absence of an identified applicable requirement or permit term governing GHG emissions from Stony Point or Southeast, Westchester cannot demonstrate that additional monitoring, recordkeeping or reporting of GHG emissions is necessary to assure compliance with such an applicable requirement or permit term.

For the foregoing reasons, EPA denies Westchester's request for an objection on this claim.

Claim VI: Westchester's Claim That "The proposed final Title V permit should require continuous emissions monitoring or more frequent testing for NOx emissions from the new turbines."

Westchester's Claim: Westchester asserts that the title V permits[26] should require more frequent monitoring of NOx from the turbines, such as more frequent NOx emissions testing, continuous NOx monitoring, or continuous monitoring of operating data for the new turbines. Westchester Petition at 14–15. Westchester claims that NYSDEC would "allow Algonquin to use a manufacturer-guaranteed 9 ppm NOx emission value" for new turbines at the compressor stations. *Id.* at 14. Westchester suggests that more frequent or continuous monitoring is necessary because there is no actual operating experience for these turbines, and because this is the first time the manufacturer of the turbines has guaranteed the 9 ppm NOx emissions rate (a lower value than prior guarantees). *Id.*

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[24] Although the heading of Claim V only references Stony Point and the focus of the discussion concerns Stony Point, Westchester generally mentions both the Stony Point and the Southeast facilities when asserting that there should be additional CO2e monitoring, recordkeeping, and reporting. Accordingly, EPA treats Claim V as seeking an objection to both Permits.

[25] Claim V of the Westchester Petition also raises issues related to EPA's Natural Gas STAR Partners program and the re-routing of blowdown gas in order to reduce emissions, which are addressed with Claim III above.

[26] Although Claim VI of the Westchester Petition only cites a provision from the Southeast permit application, this claim appears to implicate the NOx monitoring for both the Southeast and Stony Point Permits, given that Westchester refers to the permits (plural), and given that both Permits contain similar provisions related to this issue. Accordingly, EPA treats Claim VI as seeking an objection to both Permits.

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EPA's Response: For the following reasons, EPA denies Westchester's request for an objection on this claim.

Westchester's claims were not raised with reasonable specificity during the public comment period. Although some commenters very generally requested additional monitoring and one commenter generally requested either continuous or regular periodic monitoring of a variety of pollutants (including NOx) from the facilities,[27] the particular claims asserted here (e.g., claims related to the adequacy of relying on the manufacturer-guaranteed 9 ppm NOx emissions value in light of the operating history of these turbines) were not previously raised with reasonable specificity. Therefore, as discussed above with respect to Claim II, such claims cannot now be raised in this title V petition. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

Moreover, Westchester has not demonstrated that the Southeast and Stony Point Permits lack adequate NOx monitoring, recordkeeping, and reporting. As discussed above with respect to Claim II, a petitioner must demonstrate that the current permit requirements are not sufficient to assure compliance with a particular applicable requirement or permit term. 42 U.S.C. § 7661c(a), (c). The adequacy of monitoring in a title V permit is a highly fact-specific inquiry, and here, Westchester has not provided the requisite citation or analysis to demonstrate that the current permit terms are insufficient.[28]

Westchester asserts that NYSDEC would "allow Algonquin to use a manufacturer-guaranteed 9 ppm NOx emission value" for the new turbines, Westchester Petition at 14, but provides no citation to any applicable requirements or permit terms (e.g., emission limits) with which the current NOx monitoring regime does not assure compliance. Westchester also provides no discussion or further information about how the 9 ppm NOx value is "used" in the Permits.[29] In

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[27] *See* RTC at 3 (summarizing comments requesting that "[c]ontinuous stack monitoring of nitrogen oxides and sulfur oxides should be required at each compressor station"); *see also* Comments of Bradley Schwartz (February 27, 2015) (requesting "[c]ontinuous, real-time monitoring of emissions, or at least regular periodic monitoring of NOX, SO2, VOC, and other harmful substances" without further explanation).

[28] Additionally, in responding to broader comments suggesting the need for continuous monitoring of multiple pollutants from the new turbines, NYSDEC explained its position that this was not necessary: "Continuous emissions monitoring is not required by any applicable federal or state regulation for the type of stationary source subject to the Title V permit modifications. Periodic monitoring required by the Title V permits include periodic stack testing as required by federal New Source Performance Standards using EPA-approved stack testing methods, as well as monitoring of specific emissions on a monthly basis based on formulas contained in each Title V permit." RTC at 3. The failure to consider NYSDEC's reasoning and demonstrate that it was not a reasonable interpretation of the CAA presents an additional basis for finding that Westchester has not demonstrated a flaw in the Permits with respect to NOx monitoring. *See supra* note 7 and accompanying text.

[29] There appear to be two different uses of the 9 ppm value in each Permit. First, both Permits contain an "upper permit limit of" 9 ppm NOx (dry, corrected to 15% O2) on the new turbines. *See* Southeast Proposed Permit Item 24.2; Stony Point Proposed Permit Item 1-17.2. Second, both permits rely on the 9 ppm NOx value to generate an emission factor used to calculate emissions prior to stack testing, for purposes of demonstrating compliance with a different set of NOx emission limits (rolling twelve-month NOx limits) on the new turbines. *See* Southeast Proposed Permit Item 46.7, 48.7; Stony Point Proposed Permit Item 1-23.2. It is unclear which set of conditions concerns Westchester. The Westchester Petition, for example, could be interpreted to suggest that the Permits do not contain sufficient monitoring to assure compliance with the short-term 9 ppm NOx emission limits. Or, the Westchester Petition could suggest that the Permits do not contain sufficient monitoring to assure compliance with the longer-

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addition to failing to adequately identify the permit terms for which monitoring is inadequate, Westchester has also failed to identify the permit terms establishing the allegedly inadequate monitoring provisions. Instead, Westchester only briefly alludes to "periodic emission tests," without citation or explanation.[30] Given Westchester's failure to identify both the specific permit terms that are not supported by adequate monitoring and the specific monitoring provisions that are allegedly inadequate, Westchester has failed to demonstrate that the NOx monitoring terms are insufficient assure to compliance with any permit limits.

Additionally, the only bases provided by Westchester for its concerns are the allegation that the 9 ppm value is lower than prior manufacturer guarantees, and a lack of operating experience for these turbines. Westchester Petition at 14. Westchester's conclusion that these circumstances necessitate "more than periodic emission tests for the new units" is unsupported by any technical explanation or analysis. Westchester provides no analysis explaining why the current monitoring provisions do not address these concerns. For example, Westchester does not discuss the frequency of the existing emission tests, how information from such emission tests are used to demonstrate compliance, or how such testing relates to the specific permit terms with which they are intended to assure compliance. Accordingly, Westchester has not demonstrated that more frequent monitoring is necessary to assure compliance with any applicable requirements or permit terms.

For the foregoing reasons, EPA denies Westchester's request for an objection on this claim.

Claim VII: Westchester's Claim That "The proposed Title V permit for the Southeast compressor station must include a capping monitoring condition for VOC emissions for the new sources and intermittent emission testing for the new turbines."

Westchester's Claim: Westchester states that the Southeast Permit[31] does not contain a "capping monitoring condition for VOC emissions from new sources and does not require intermittent testing of VOC emissions from the new turbines." Westchester Petition at 15. Westchester asserts that the permit should require VOC emissions monitoring, recordkeeping, and reporting from the new turbines, new fugitive emissions, and new blowdown events. *Id.* Westchester explains that the Stony Point permit requires monitoring of these VOC emissions, and asserts that the Southeast Permit should contain similar provisions, notwithstanding that the counties in which the two facilities are located have a different ozone nonattainment status. *Id.* (citing Stony Point Items 1-15, 1-21).

EPA's Response: For the following reasons, EPA denies Westchester's request for an objection on this claim.

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term 12-month rolling NOx emission limits, for which the 9 ppm value is "used" (for a certain period of time) to calculate emissions for compliance demonstration purposes.

[30] The permit terms associated with the short-term 9 ppm emission limits include stack testing requirements, and stack test data is used to develop emission factors for demonstrating compliance with the longer-term rolling 12-month emission limits (thus superseding the emission factor based on the 9 ppm value). *See* Southeast Proposed Permit Items 24.2, 46.7, 48.7; Stony Point Proposed Permit Items 1-17.2, 1-23.2.

[31] Claim VII challenges only the Southeast Permit.

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These issues related to the monitoring of VOC from new turbines and other emission sources at the Southeast facility were not raised with reasonable specificity during the public comment period, and Westchester has not demonstrated that it was impracticable to do so. As discussed above with respect to Claim II, such claims cannot now be raised in this title V petition. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

Additionally, Westchester has failed to demonstrate that the Southeast Permit does not contain adequate provisions to assure compliance with all applicable requirements and permit terms. As discussed above with respect to Claim II, a petitioner must demonstrate that the current monitoring, recordkeeping, and reporting requirements are not sufficient to assure compliance with a particular applicable requirement or permit term. 42 U.S.C. § 7661c(a), (c). Here, Westchester does not cite to any applicable requirements or permit terms related to VOC emissions with which the Southeast Permit does not assure compliance. Instead, Westchester cites only plantwide emission estimates provided by Southeast in its permit application. Westchester Petition at 15. Accordingly, Westchester has failed to demonstrate that the Southeast Permit does not assure compliance with any applicable requirements or permit terms.

For the foregoing reasons, EPA denies Westchester's request for an objection on this claim.

Claim VIII: Westchester's Claim That "The proposed Title V permit for the Stony Point compressor station must include NOx capping condition for existing turbines."

Westchester's Claim: Westchester claims that both Southeast and Stony Point previously accepted federally-enforceable limits to restrict NOx emissions below thresholds that would trigger NSR requirements, which were included in the facilities' prior title V permits. Westchester Petition at 15–16. However, Westchester claims that a prior cap on NOx emissions was not carried over into the current Stony Point[32] permit modification. *Id.* at 16 (citing an unspecified "existing" version of the Stony Point Permit,[33] Item 35.7). Westchester asserts that this previous condition should be included in the current permit because Stony Point previously relied on them to avoid applicable requirements. *Id.* Acknowledging that new NOx "capping conditions" have been added to the title V permits for new equipment, Westchester also argues that the prior capping conditions should be included because it would be counterproductive to impose new capping conditions for the new equipment while eliminating the conditions for the old equipment. *Id.*

EPA's Response: For the following reasons, EPA denies Westchester's request for an objection on this claim.

These issues related to the inclusion of previously-accepted NOx emission limits on existing units at the Stony Point facility were not raised with reasonable specificity during the public comment period, and Westchester has not demonstrated that it was impracticable to do so. As

[32] Claim VIII expressly refers only to the Stony Point Permit. It is unclear whether this claim was also intended to relate to the Southeast Permit. In either event, EPA's response below would apply the same.
[33] Although Westchester identifies this prior version of the Stony Point Permit as Exhibit 4, the cited exhibit actually contains the Proposed Stony Point Permit modification.

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discussed above with respect to Claim II, such claims cannot now be raised in this title V petition. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

Additionally, this claim now appears to be moot. NYSDEC included in later versions of the Permits the emission limits that Westchester identified as absent from the 2015 Proposed Permits.[34]

For the foregoing reasons, EPA denies Westchester's request for an objection on this claim.

V. THE GRASSROOTS PETITION

Grassroots' Claims: Grassroots raises several concerns with positions expressed in NYSDEC's RTC regarding scientific research on the public health impacts of the AIM Project.[35]

Grassroots expresses general concern with NYSDEC's dismissal of research related to the health impacts of the project. Individuals associated with Grassroots presented criticisms of relying on regulatory standards such as NAAQS to determine health impacts or risks of individual projects, including issues related to short-term exposures and the economic and health-based significance of VOC, NOx, and HAP emissions from compressor stations. *See* Grassroots Petition Attachment at 1–2, 5. Individuals associated with Grassroots also challenge industry claims regarding potential formaldehyde emissions after the AIM Project and claim that model-predicted outcomes may underestimate HAP emissions, including formaldehyde, benzene, and 1,3-butadiene. *See id.* at 3, 6. Grassroots urges EPA to question NYSDEC's reliance on best-case industry model projections. Grassroots Petition at 1–2.

Grassroots claims that existing monitoring methods may dramatically underestimate pollutants at compressor stations, and that several prominent researchers have concluded that some monitoring protocols are incompatible with protecting the health of those living near compressor stations. *Id.* at 2. Grassroots encourages EPA to continue its dialogue with these scientists, and to consider whether this information would constitute "newly discovered material information" that would "argue for a denial of the permit by NYS DEC." *Id.*

Grassroots challenges DEC's assertion that the gas flowing through the pipeline associated with the Southeast and Stony Point facilities will be substantially different than gas originating at wellheads in Pennsylvania, Ohio, and West Virginia. *Id.* at 1.

Grassroots also expresses concerns with DEC's dismissal of matters relating to the decay time of radon and other by products of radiation. *See id.* at 2; Grassroots Petition Attachment at 3–5.

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[34] *See* Final Southeast Permit dated April 26, 2018, Item 47.7 (establishing a 34.3 tons per year limit on the two existing Solar Taurus turbines); Final Stony Point Permit dated April 26, 2018, Item 58.7 (establishing a 30.7 tons per year limit on the two existing Solar Taurus turbines).

[35] The Grassroots Petition consists of a letter from Grassroots on behalf of various scientists and researchers, as well as an attachment containing rebuttals of individual scientists and researchers to NYSDEC's RTC. Grassroots requested that both documents be considered the petition requesting an EPA objection.

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EPA's Response: For the following reasons, EPA denies the request for an objection in the Grassroots petition.

As discussed above, the CAA places a burden on petitioners to demonstrate that a title V permit is not in compliance with the requirements of the Act. 42 U.S.C. § 7661d(b)(2). Although Grassroots may be dissatisfied with NYSDEC's responses to comments and may disagree with NYSDEC's technical conclusions regarding the health impacts, emissions modeling and monitoring, emissions estimates, gas characteristics, or radioactive materials, Grassroots has not identified any applicable CAA requirements with which the Southeast and Stony Point Permits do not comply. Thus, Grassroots has failed to meet its burden to demonstrate noncompliance with the requirements of the Act, and the issues raised by the Grassroots Petition provide no basis for an EPA objection to the Permits.

For the foregoing reasons, EPA denies the request for an objection in the Grassroots petition.

VI. THE GLIDDEN PETITION

Glidden's Claims: Suzannah Glidden raises various concerns related to the health impacts of emissions from the compressor station. Ms. Glidden states that she previously gave personal testimony concerning her health and medical condition and asserts that she has experienced extreme adverse health reactions, including hospitalization because of emissions from the Southeast facility. Ms. Glidden also notes the area's nonattainment status for ozone and particulate matter and asserts that this region cannot afford significant increases in toxic air emissions. Glidden asserts that the use of "air credits" is unconscionable and must be abandoned to protect public health, because it allows industry to release air pollutants beyond safe limits. Ms. Glidden also states that Spectra refuses to give the town of North Salem advance notification of planned blowdowns. Ms. Glidden expresses concern with raising the threshold at which point blowdown emissions would require reporting and notification, describing this as "unacceptable." Ms. Glidden requests "true and honest 24 hour monitoring" of compressor station emissions and an evaluation of the cumulative impacts of these emissions on health, and requests that EPA deny approval of the Permits.

EPA's Response: For the following reasons, EPA denies the request for an objection in the Glidden Petition.

As discussed above, the CAA places a burden on petitioners to demonstrate that a title V permit is not in compliance with the requirements of the Act. 42 U.S.C. § 7661d(b)(2). Ms. Glidden has not identified any applicable CAA requirements with which the Southeast and Stony Point Permits do not comply. Thus, Ms. Glidden has failed to meet her burden to demonstrate that the Permits fail to comply with the requirements of the Act, and the issues raised by the Glidden Petition provide no basis for an EPA objection to the Permits.

For the foregoing reasons, EPA denies the request for an objection in the Glidden Petition.

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VII. THE BARRANCO-FEERO, CARBONARE, AND AUSLANDER PETITIONS

The Barranco-Feero Petition, Carbonare Petition, and the two Auslander Petitions each consists of a brief email message containing substantially similar claims and statements. As such, EPA is responding to these petitions together.

Barranco-Feero, Carbonare, and Auslander's Claims: These petitions express various concerns and allegations related to the impact of the pipeline project associated with the Southeast and Stony Point facilities on land, life, and health. The petitions assert that the existing compressor stations emit large quantities of methane, CO2, and VOCs, including formaldehyde, benzene and toluene. The petitions also contend that severe health effects are associated with compressor station emissions, listing various symptoms and/or conditions, and focus on risks to certain particularly vulnerable populations. The petitions also discuss the region's non-attainment status for air quality standards, and the American Lung Association's "F" rating of Westchester air quality, and conclude that the region cannot afford significant increases in toxic emissions.

EPA's Response: For the following reasons, EPA denies the requests for an objection in the Barranco-Feero, Carbonare, and Auslander Petitions.

As discussed above, the CAA places a burden on petitioners to demonstrate that a title V permit is not in compliance with the requirements of the Act. 42 U.S.C. § 7661d(b)(2). These petitioners have not identified any applicable CAA requirements with which the Southeast and Stony Point Permits do not comply. Thus, the petitioners have failed to meet their burden to demonstrate that the Permits fail to comply with the requirements of the Act, and the issues raised by these petitioners provide no basis for an EPA objection to the Permits.

For the foregoing reasons, EPA denies the requests for an obligation in the Barranco-Feero, Carbonare, and Auslander Petitions.

VIII. THE GARDNER PETITION

Gardner's Claims: Cari Gardner expresses various concerns and allegations relating to the Southeast and Stony Point facilities, including the proximity and danger of a nearby aging nuclear facility, the need to reduce the use of fossil fuels, and the risk of gas leaks and explosions. Ms. Gardner also asserts that "the air quality is already below acceptable standards," and "there has yet to be a clear assessment of the real health and safety risks of this project." The Gardner Petition concludes that no permits should be issued for the pipeline project, and requests that EPA put a stop to the project.

EPA's Response: For the following reasons, EPA denies the request for an objection in the Gardner Petition.

As discussed above, the CAA places a burden on petitioners to that a title V permit is not in compliance with the requirements of the Act. 42 U.S.C. § 7661d(b)(2). Ms. Gardner has not identified any applicable CAA requirements with which the Southeast and Stony Point Permits

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do not comply related to these concerns. Thus, Ms. Gardner has failed to meet the burden to demonstrate that the Permits fail to comply with the requirements of the Act, and the issues raised by the Gardner Petition provide no basis for an EPA objection to the Permits.

For the foregoing reasons, EPA denies the request for an objection in the Gardner Petition.

IX. THE CLAIR SUBMITTAL

The email message submitted by Paula Clair is addressed to EPA Administrator and the subject line states: "Petition on title V Air Permits for the Southeast and Stony Point Compressor Stations—Algonquin Incremental Market Project." In the text of the message, Ms. Clair describes her email as a "petition to . . . [the EPA] regarding the proposed Air Permits for the Southeast and Stony Point Compressor Stations." Ms. Clair does not expressly request that EPA "object" to the permits, but concludes her message by asking that EPA "take action to deny these Air Permits." The Clair Submittal does not cite to CAA § 505(b)(2) or to 40 C.F.R. § 70.8, or any other statutory or regulatory provision as the basis for the submission. Ms. Clair appears to petition EPA for some relief or action, but it is not clear that the Clair Submittal is specifically a CAA § 505(b)(2) petition to object to the Southeast and Stony Point Permits. Nonetheless, without waiving any claim that the Clair Submittal was not properly filed, EPA is responding to the Clair Submittal as if it were a petition to object under CAA § 505(b)(2).

Clair's Claims: The Clair Submittal repeatedly asserts that the AIM Project violates 6 NYCRR 211.1, which states:

> No person shall cause or allow emissions of air contaminants to the outdoor atmosphere of such quantity, characteristic or duration which are injurious to human, plant or animal life or to property, or which unreasonably interfere with the comfortable enjoyment of life or property. Notwithstanding the existence of specific air quality standards or emission limits, this prohibition applies, but is not limited to, any particulate, fume, gas, mist, odor, smoke, vapor, pollen, toxic or deleterious emission, either alone or in combination with others.

Clair Submittal at 1 (quoting 6 NYCRR 211.1); *see id.* at 3, 4.

The Clair Submittal asserts that the project associated with the Southeast and Stony Point Permits violate this state rule because their air emissions will cause adverse impacts on human health and wildlife. *Id.* at 1, 3, 4. Ms. Clair discusses various studies, a report, and a video involving purported adverse health impacts of air emissions from compressor stations. *Id.* at 1–3. Ms. Clair focuses on specific pollutants, including benzene, formaldehyde, and hexane, and discusses specific symptoms and other conditions that potentially result from exposure to such pollutants. *Id.* at 1–2. Ms. Clair also discusses the risk to residents located close to compressor stations, as well as to sensitive populations, such as children and the elderly. *Id.* at 3.

The Clair Submittal also claims that the cumulative effects from compressor stations and other natural gas infrastructure, including pigging stations and pipelines, have not been analyzed. *Id.* at 2. Ms. Clair discusses the radioactive materials cleaned out from pigging stations, and claims

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that pollutants associated with pigging stations are released during compressor station and pipeline blowdowns. *Id.* Ms. Clair also asserts that although pigging stations are on-site at both the Southeast and Stony Point facilities, they are not discussed in the permit documents. *Id.*

The Clair Submittal also makes various allegations related to potential and actual emissions of VOC and NOx from the Southeast and Stony Point facilities, based on a comparison of potential emissions submitted in reports to the FERC in 2014 to actual emissions reported in October 2013. *See id.* at 3. Based on the potential emissions, Ms. Clair contends that emissions of NOx and VOCs would be "hugely increased." *Id.*

The Clair Submittal also focuses on emissions from blowdowns. *See id.* at 2, 3. Ms. Clair asserts that there is no reporting of toxic emissions vented in blowdowns, thus potentially leading to the under-reporting of total emissions that might "take them over limits." *Id.* at 3. Ms. Clair also claims that Spectra Energy refused to provide the neighboring town of North Salem advance notice of blowdowns. *Id.*

The Clair Submittal asserts that Spectra Energy's safety record is questionable, citing fines for spills and safety violations and charges of a number of probable violations. *Id.* at 3.

The Clair Submittal addresses methane emissions from compressor stations, pipelines, and fracking, claiming that the amount of methane released from these emissions is greater than previously believed, and asserting that "this is a serious problem affecting the environment and climate change." *Id.* at 3.

EPA's Response: The Clair Submittal focuses on alleged violations of 6 NYCRR 211.1. However, this is a state law provision that is *not* part of New York's EPA-approved SIP. 40 C.F.R. § 52.1670; *see* 63 Fed. Reg. 65557 (November 27, 1998).[36] As a purely state law provision, 6 NYCRR 211.1 is not a federally-enforceable "applicable requirement" subject to EPA review or, for example, a petition opportunity. *See* 40 C.F.R. §§ 70.2 (definition of "applicable requirement" for title V permitting purposes), 70.6(b)(2) (providing that state-only permit terms are not subject to various federal requirements related to the issuance and EPA's review of title V permits); *see also, e.g., In the Matter of Waupaca Foundry, Inc. Plants 2/3*, Order on Petition No. V-2016-21 at 9–10 (June 7, 2017). Therefore, to the extent that the Clair Submittal may be regarded as a title V petition to object under CAA § 505(b)(2) and 40 C.F.R. § 70.8, any concerns presented with respect to 6 NYCRR 211.1 present no basis for EPA to object to the permits.

Regarding Ms. Clair's various other concerns, as summarized above, the Clair Submittal does not identify any applicable CAA requirements with which the Southeast and Stony Point Permits do not comply. Thus, to the extent the Clair Submittal may be construed as a petition to object

[36] As EPA explained when removing this provision from the New York SIP, this general prohibition against air pollution "does not have a reasonable connection to the national ambient air quality standards (NAAQS) and related air quality goals of the [CAA]." 63 Fed. Reg. at 65557. Note that this provision was previously codified at 6 NYCRR 211.2, which is why the 1998 preamble references 6 NYCRR 211.2. However, EPA's regulations make clear that the current version of the provision, codified at 6 NYCRR 211.1, is not part of the SIP. *See* 40 C.F.R. § 52.1670.

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under CAA § 505(b)(2), the Submittal fails to demonstrate that the Permits fail to comply with Act and provide no basis for EPA to object to the Permits.

X. THE VAN DOLSEN SUBMITTAL

The Van Dolsen Submittal is an eight-page letter addressed to EPA Administrator. The letter is not explicitly characterized as a "petition" and it contains no reference to a petition. It also does not request that EPA "object" to the Southeast or Stony Point Permits, but requests EPA to "reject the modification of the Title V air Permits," to "deny the permits," and "not to issue the modified title V permits." Van Dolsen Submittal at 1, 8. The Van Dolsen Submittal does not cite to CAA § 505(b)(2) or to 40 C.F.R. § 70.8, or any other statutory or regulatory provision as the basis for the submission. Ms. Van Dolsen clearly requests some relief or action from EPA, but it is not clear that the Van Dolsen Submittal specifically is a CAA § 505(b)(2) petition to object to the Southeast and Stony Point Permits. Nonetheless, without waiving any claim that the Van Dolsen Submittal was not properly filed, EPA is responding to the Van Dolsen Submittal as if it were a petition to object under CAA § 505(b)(2).

Van Dolsen's Claims: The Van Dolsen Submittal, like the Clair Submittal, requests that EPA "reject" the modifications to the Southeast and Stony Point Permits because they violate 6 NYCRR 211.1. Van Dolsen Submittal at 1, 5 (citing Draft Permit Item 25.1[37] and quoting 6 NYCRR 211.1 (characterized as a "federal requirement")). Ms. Van Dolsen claims that "emerging research into the health impacts from shale gas development demonstrates that the current regulatory framework does not protect the health and 'comfortable enjoyment of life and property' as outlined in the statute." *Id.* at 5.[38] For support, Ms. Van Dolsen discusses health concerns underlying New York's December 17, 2014 ban on high-volume hydraulic fracturing, as well as various other studies evaluating the emissions and health impacts associated with oil and gas development, particularly emissions from compressor blowdowns. *See id.* at 1–5.

The Van Dolsen Submittal claims that permit conditions related to reporting and compliance "fall short of what is necessary to truly gauge actual exposure from emissions and the health effects of these exposures." *Id.* at 3. Ms. Van Dolsen asserts that annual self-reporting requirements do not take into account accidental and planned blow downs or the resulting spikes of PM, formaldehyde, and other chemicals. *Id.* Ms. Van Dolsen reproduces a permit term related to deviation reporting, and requests that NYSDEC "immediately raise the bar and commence monitoring . . . on a more consistent basis and require third-party, independent air sampling of emissions during blow down events." *Id.* at 5–6.

The Van Dolsen Submittal also alleges that Spectra has not been forthcoming in notifications of an emission event in Bedford, Pennsylvania. *Id.* at 6. Accordingly, Ms. Van Dolsen requests that Algonquin be required to notify NYSDEC about planned blowdowns at least 72 hours prior to the event, and of emergency blowdowns within 30 minutes of the event. *Id.*

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[37] The conditions at issue are actually contained in Item 26.1 of the Draft and Proposed Southeast Permits and Item 1-19.1 of the Draft and Proposed Stony Point Permits.

[38] Van Dolsen similarly claims that "shale gas development has created a new paradigm and therefore requires different methods of assessing permit applications," and that due to new risks related to shale gas development, EPA should re-evaluate the New York SIP. *Id.* at 1, 2.

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The Van Dolsen Submittal also asserts that an increase in fugitive methane emissions from the Southeast and Stony Point compressor stations will contribute to climate change and undermine New York's renewable energy goals. *Id.* at 6–8 (citing GHG emissions from the AIM project generally, potential emissions from leaking valves and flanges, and studies related to the impacts of methane as a GHG). Ms. Van Dolsen contends that EPA "should deny the permits" because NYSDEC did not sufficiently look at energy policy and consequences for the state when permitting major sources of GHG emissions. *Id.* at 7–8.

Throughout her letter, Ms. Van Dolsen asks various questions related to the Permits. Ms. Van Dolsen asks, for example, why the permit applications before NYSDEC were broken into two projects, while the FERC application was for the AIM Project as a whole. *Id.* at 2. Ms. Van Dolsen asks various questions related to the facility's use of emission reduction credits, including observations related to environmental justice in Peekskill, New York. *Id.* at 3. Ms. Van Dolsen also asks why various units, including fugitive emissions from piping components, were classified as "exempt" in the Southeast Permit. *Id.* at 7.

EPA's Response: With respect to Ms. Van Dolsen's claims relating to 6 NYCRR 211.1, as discussed in connection with the Clair Submittal, 6 NYCRR 211.1 is *not* a federally-enforceable SIP provision, but rather a matter solely of state law. Therefore, to the extent that the Van Dolsen Submittal may be regarded as a title V petition to object under CAA § 505(b)(2) and 40 C.F.R. § 70.8, any concerns presented with respect to 6 NYCRR 211.1 present no basis for EPA to object to the permits.

Regarding Ms. Van Dolsen's various other concerns, as summarized above, the Van Dolsen Submittal does not identify any applicable CAA requirements with which the Southeast and Stony Point Permits do not comply. Thus, to the extent the Van Dolsen Submittal may be construed as a petition to object under CAA § 505(b)(2), the Submittal fails to demonstrate that the Permits fail to comply with Act and provides no basis for EPA to object to the Permits.

XI. CONCLUSION

For the reasons set forth above and pursuant to CAA § 505(b)(2) and 40 C.F.R. § 70.8(d), to the extent that the ten submittals addressed herein are or could be considered petitions requesting an EPA objection, I hereby deny such petitions.

Dated: APR 3 0 2019

Andrew R. Wheeler
Administrator

ED_002687_00001195-00025

Message

From: Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]
Sent: 4/11/2019 5:23:15 PM
To: Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]
CC: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Abboud, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6f5af791a1842f1adcc088cbf9ed3ce-Abboud, Mic]; Voyles, Travis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4c2b6c0d5ff046e7809f8cab2913bc48-Voyles, Tra]; Brazauskas, Joseph [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=babf7b77aeec4ffeaad446bb35e05b24-Brazauskas,]
Subject: Re: E&C Committee investigation

James,

I'm on leave today but will be back in the office tomorrow. Happy to talk then.

Sent from my iPhone

On Apr 11, 2019, at 9:54 AM, Hewitt, James <hewitt.james@epa.gov> wrote:

> Bill & David,
>
> Can we chat about this as soon as possible?
>
> Thanks,
> James
>
> ---
>
> **From:** Zack Colman <zcolman@politico.com>
> **Sent:** Thursday, April 11, 2019 9:49 AM
> **To:** Press <Press@epa.gov>; Hewitt, James <hewitt.james@epa.gov>; Abboud, Michael <abboud.michael@epa.gov>; Konkus, John <konkus.john@epa.gov>
> **Subject:** E&C Committee investigation
>
> Hi all,
>
> House Energy and Commerce Democrats are sending letters to 8 utilities that are Utility Air Regulatory Group members and Hunton Andrews Kurth regarding communications with Bill Wehrum and David Harlow. They're focusing on whether Wehrum and Harlow committed ethical violations (in the DTE case with respect to the December 2017 policy memo and also actions regarding UARG members) and seeking communications between those companies and 22 current and former EPA officials.
>
> My questions:
>
> 1. When was the last time EPA, Wehrum or Harlow communicated with Hunton Andrews Kurth about the DTE case and UARG?
> 2. Has Wehrum been cleared of any ethical charges regarding DTE, UARG or its member companies?
> 3. Is EPA aware of any ongoing OIG investigations regarding Harlow and Wehrum?

4. Has the Energy and Commerce Committee reached out to EPA?

Thank you. The story will run at 11 a.m. I look forward to your response.

-Zack

Zack Colman
POLITICO : energy & environment reporter
cell: Ex. 6
twitter: @zcolman

Message

From: Bodine, Susan [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=8C2CC6086FCC44C3BE6B5D32B262D983-BODINE, SUS]
Sent: 1/7/2019 6:16:57 PM
To: Block, Molly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=60d0c681a16441a0b4fa16aa2dd4b9c5-Block, Moll]; Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Darwin, Henry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ae8e9d24eeb4132b25982e358efbd9d-Darwin, Hen]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; Greaves, Holly [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=abcb6428b3df40a9a78b059a8ba59707-Greaves, Ho]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Ross, David P [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=119cd8b52dd14305a84863124ad6d8a6-Ross, David]; Wildeman, Anna [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=05dd0af69bfa40429e438b7646502b99-Wildeman, A]; Wright, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=11616a3db06f4eceb13ea26c7e6dc1f0-Wright, Pet]; Cook, Steven [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=394f5dede6184bc083cf9390e49a192c-Cook, Steve]; Dunn, Alexandra [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=426d0177eaab4001a5c85f051565997e-Dunn, Alexa]; Beck, Nancy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=168ecb5184ac44de95a913297f353745-Beck, Nancy]; Baptist, Erik [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=10fc1b085ee14c6cb61db378356a1eb9-Baptist, Er]; Dunlap, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=591eb15a268249dda0c05a7451f765c3-Dunlap, Dav]; McIntosh, Chad [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e328de48699c4747ad3a421e3aa5e850-McIntosh, W]; Traylor, Patrick [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6d06c6b766c4b4b8bfdf6b0fea4b998-Traylor, Pa]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Lopez, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b7b64b3b2f984708840a5f342309d460-Lopez, Pete]; Servidio, Cosmo [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f11f91d53e9a4cdaa8281be07e9034aa-Servidio, C]; Walker, Mary [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=Walker, Mary S.]; Ashbee, Blake [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b8dd6ba2cead4b9db18cff8e4820bec4-Ashbee, Bla]; Stepp, Cathy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=befdafc0fa1a425eae232f60ad9bda1d-Stepp, Cath]; Idsal, Anne

[/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b1beca8121fb47a08e82b6bf2247a79b-Idsal, Anne]; Gulliford, Jim [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a3aa23ac3a36426495575d5dfd5a37c9-Gulliford,]; Benevento, Douglas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=93dba0f4f0fc41c091499009a2676f89-Benevento,]; Stoker, Michael B. [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=dcb64b4e7edf48aabe8ef43996a4652e-Stoker, Mic]; Hladick, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b82d04419c42423a97bd7624a3a09908-Hladick, Ch]

CC: Molina, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c1d68da1a4587866e1850f22a6ae5-Molina, Mic]

Subject: RE: please review

Attachments: HEARING PREP DRAFT 1.4.19_CB mb spb edits.docx

See attached edits.
I also noted a few duplications from last year's report.

From: Block, Molly
Sent: Monday, January 7, 2019 9:31 AM
To: Jackson, Ryan <jackson.ryan@epa.gov>; Darwin, Henry <darwin.henry@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Fotouhi, David <fotouhi.david@epa.gov>; Greaves, Holly <greaves.holly@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>; Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>; Woods, Clint <woods.Clint@epa.gov>; Ross, David P <ross.davidp@epa.gov>; Wildeman, Anna <wildeman.anna@epa.gov>; Wright, Peter <wright.peter@epa.gov>; Cook, Steven <cook.steven@epa.gov>; Dunn, Alexandra <dunn.alexandra@epa.gov>; Beck, Nancy <Beck.Nancy@epa.gov>; Baptist, Erik <baptist.erik@epa.gov>; Dunlap, David <dunlap.david@epa.gov>; McIntosh, Chad <mcintosh.chad@epa.gov>; Bodine, Susan <bodine.susan@epa.gov>; Traylor, Patrick <traylor.patrick@epa.gov>; Konkus, John <konkus.john@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Bolen, Brittany <bolen.brittany@epa.gov>; Lopez, Peter <lopez.peter@epa.gov>; Servidio, Cosmo <servidio.cosmo@epa.gov>; Walker, Mary <walker.mary@epa.gov>; Ashbee, Blake <ashbee.blake@epa.gov>; Stepp, Cathy <stepp.cathy@epa.gov>; Idsal, Anne <idsal.anne@epa.gov>; Gulliford, Jim <gulliford.jim@epa.gov>; Benevento, Douglas <benevento.douglas@epa.gov>; Stoker, Michael B. <stoker.michael@epa.gov>; Hladick, Christopher <hladick.christopher@epa.gov>
Cc: Molina, Michael <molina.michael@epa.gov>
Subject: RE: please review

Note that most sections are intermixed i.e. Region 3 and Region 7 have been highlighted in the lead section and the Wyoming self-audit program can be found under both Enforcement and Region 8.

Thanks all! You may also be getting individual emails from me with specific info that's missing.

Molly

From: Jackson, Ryan
Sent: Monday, January 7, 2019 9:25 AM
To: Darwin, Henry <darwin.henry@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Fotouhi, David <fotouhi.david@epa.gov>; Greaves, Holly <greaves.holly@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>; Gunasekara, Mandy <Gunasekara.Mandy@epa.gov>; Woods, Clint <woods.Clint@epa.gov>; Ross, David P <ross.davidp@epa.gov>; Wildeman, Anna <wildeman.anna@epa.gov>; Wright, Peter <wright.peter@epa.gov>; Cook, Steven <cook.steven@epa.gov>; Dunn, Alexandra <dunn.alexandra@epa.gov>; Beck, Nancy <Beck.Nancy@epa.gov>; Baptist, Erik <baptist.erik@epa.gov>; Dunlap, David <dunlap.david@epa.gov>; McIntosh, Chad <mcintosh.chad@epa.gov>; Bodine, Susan <bodine.susan@epa.gov>; Traylor, Patrick <traylor.patrick@epa.gov>; Konkus, John <konkus.john@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Bolen, Brittany <bolen.brittany@epa.gov>;

Lopez, Peter <lopez.peter@epa.gov>; Servidio, Cosmo <servidio.cosmo@epa.gov>; Walker, Mary <walker.mary@epa.gov>; Ashbee, Blake <ashbee.blake@epa.gov>; Stepp, Cathy <stepp.cathy@epa.gov>; Idsal, Anne <idsal.anne@epa.gov>; Gulliford, Jim <gulliford.jim@epa.gov>; Benevento, Douglas <benevento.douglas@epa.gov>; Stoker, Michael B. <stoker.michael@epa.gov>; Hladick, Christopher <hladick.christopher@epa.gov>
Cc: Molina, Michael <molina.michael@epa.gov>; Block, Molly <block.molly@epa.gov>
Subject: please review

All, attached is a highlights year report prepared for nomination hearing preparation and responses to Congress.

Please read through simply your sections for accuracy and to suggest any additional items which should be highlighted or better examples than what is included. Thank you for your contributions already. We could put together a 500 page document of the work EPA has done, but, of course, the purpose of this is a topline and streamlined overview.

We are making additional edits to this including a cover, opening, graphics, and visuals to help the presentation.

Please review your section(s) and respond to Molly Block as soon as you have the opportunity.

Thank you.

Ryan Jackson
Chief of Staff
U.S. Environmental Protection Agency
Personal Phone / Ex. 6

Message

From: Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]
Sent: 5/7/2019 5:02:04 PM
To: Cozad, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4a30a28be6a74d3da779bb7f7b34a876-COZAD, DAVID]
CC: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]
Subject: Re: Documents you requested

David,

Thank you.

Sent from my iPhone

On May 7, 2019, at 12:51 PM, Cozad, David <Cozad.David@epa.gov> wrote:

> Hi Bill and David,
>
> See attached documents that I received from Hunton. We should discuss sometime in next couple days -
>
> Dave Cozad
> Acting Designated Agency Ethics Official
>
> ---
>
> **From:** Rolfe, Robert <rrolfe@hunton.com>
> **Sent:** Friday, May 03, 2019 1:57 PM
> **To:** Cozad, David <Cozad.David@epa.gov>
> **Cc:** Klein, Christine <cklein@hunton.com>
> **Subject:** Documents you requested
>
> Dave,
>
> As we discussed, I attach the most recent organizational documents for UARG, effective June 2015.
>
> I also attach a copy of a UARG document obtained and published by Politico. I am advised that the list of UARG members contained in that paper was accurate as of June 2017.
>
> Please contact me if you need further information.
>
> Best regards,
> Bob
>
> Robert M. Rolfe
> Partner and General Counsel
>
> HUNTON ANDREWS KURTH LLP
> Riverfront Plaza, East Tower, 951 East Byrd St., Richmond, VA 23219
> +1.804.788.8466 Phone | +1.804.343.4568 Fax

+1.804.788.7321 Assistant – Leslie Yeatts
RRolfe@HuntonAK.com | HuntonAK.com

<2_Charter_Bylaws_Structure and Procedures June 2015.pdf>
<Politico UARG Paper.pdf>

INTRODUCTION TO WORKSHOP MATERIALS

These materials are designed to give you substantive and budgetary information on the issues that will be discussed during the June 22-23, 2017 meeting of UARG's Policy Committee. In particular, these materials contain:

* Detailed information on the activities in which UARG's Technical Committees are engaged in 2017;
* A summary of where each Committee stands on spending in 2017 (*i.e.*, what the Committees are authorized to spend this year, how much they have spent to date, and whether they think they will be able to complete the year's projects with the funds available to them); and
* A description of the activities that each Committee now believes it should undertake in 2018 and preliminary estimates of UARG's overall budgetary needs for 2018.

Before you dig into the detailed reports from each of our Technical Committees, though, here are a few "overview" thoughts about the UARG budgets for the remainder of this year and for next year.

2017 UARG Budget. During the Obama Administration, EPA proposed and adopted an unprecedented number of rules that stretched the bounds of what EPA is authorized to do under the Clean Air Act and that had significant adverse effects on electric generating units. To try to limit the adverse effects of such overly-broad Agency actions, UARG – during the past 8 years – had to participate in many complicated administrative proceedings and in the even more complicated court cases arising out of those administrative proceedings. And the cost of such UARG participation was high: UARG's overall budgets increased annually, and – particularly during the past three years – UARG expenditures exceeded available funds.[1]

We entered 2017 expecting things to be different. Given the results of last November's presidential election, we expected the new Administration to halt or slow rulemaking initiatives started by the previous Administration and to ask the relevant courts to hold in abeyance ongoing litigation until new leaders at EPA could be named and could determine whether or not EPA would continue to advocate the positions of its predecessors. And while the new Administration

[1] Hunton & Williams agreed to write off overages. Last year, for example, Hunton wrote off over $600,000 in fees exceeding budgeted funds available.

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sorted out its leaders and priorities, we expected the rate of UARG expenditures to be relatively low.

Unfortunately, that is not what has occurred. The new Administration was not immediately prepared to take positions in ongoing litigation or even to ask the courts to hold matters in abeyance while new positions could be formulated. This forced the parties to those cases – many of which involved UARG – to continue filing dispositive motions and briefs throughout the first quarter of 2017. As a result, many of UARG's Technical Committees had to spend far more in the first four months of 2017 than they might normally have had to spend at the beginning of a more typical Administration transition year. See Table 1 (immediately following this Introduction), which sets out the expenditures for each of UARG's Technical Committee during the first four months of the year.

If the current rate of expenditures by UARG's Technical Committees were to continue for the remainder of 2017, UARG would exceed its budget by approximately 17%. We do not, however, expect that to happen. First of all, the new Administration is slowly managing to take the steps necessary to have the courts hold in abeyance many pending cases in which the new Administration is likely to change the positions taken by the Obama Administration. And on the administrative side, even though the Agency must continue those rulemakings that it is compelled by court order to complete by dates certain, EPA is not yet prepared to begin many new initiatives, including initiatives to change aspects of programs adopted by EPA during the past 8 years. While the status quo continues, the rate of expenditure by many UARG Technical Committees is likely to remain lower than it was during the first third of the year. UARG's Planning Committee will work to set priorities and take other steps to manage UARG's spending for the remainder of the year. With such efforts, year-2017 activities may exceed the amount of funds available, but the overage will be much lower than 17%.

Planning for 2018. UARG's Technical Committees are asked in June of each year to predict their funding needs for the following calendar year. In a typical year, it is difficult to make such predictions. It is particularly difficult to do so this year, as each Technical Committee tries to predict when the new EPA leadership team will be in place and what its priorities will be during the next 3-4 years. Given that uncertainty, each Technical Committee – in its comprehensive report – has assumed that it will be exceptionally busy in 2018, as EPA

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undertakes a large number of initiatives to address the more extreme measures adopted by the previous Administration. As you can see in Table 2 (which follows this Introduction), if EPA were to try to do all the things that each Committee hopes the Agency will do and if each Committee is actively involved in each such activity, then UARG's overall budget for 2018 would have to be about 7.5% higher than the overall budget for 2017.

For better or worse, though, EPA is not likely to be able to address every issue listed in the Committee Reports that follow this Introduction; therefore, UARG is unlikely to need 7.5% more funding in 2018 than in 2017. But once the new leadership team at EPA is in place, if that team shows that it has the ability to address expeditiously many of the initiatives of greatest importance to UARG members – and if UARG wants to participate meaningfully in such initiatives – then UARG will likely need an overall year-2018 budget that is higher than this year's budget.

As EPA's agenda becomes more clear over the next six months, UARG's Planning Committee will work with the individual UARG Technical Committees in order to develop a reasonable year-2018 budget. If it seems unlikely that the Trump Administration will be able to undertake many reform initiatives in 2018, then the Planning Committee should be able to recommend a budget set at no more than $8,200,000. If, however, it appears that the new Administration is ready and able in 2018 to undertake a substantial number of initiatives to reform the unreasonable Clean Air Act programs of the previous Administration – and if the goal is to have UARG play a leadership role in those efforts – then the Planning Committee may want to recommend an overall year-2018 budget that is 3-4% higher than that.

Making Budgetary Decisions/Setting Dues for 2018. UARG's Policy Committee does not officially set the amount of UARG's 2018 budget until December 2017, when members will have better information on what challenges UARG will actually face next year. Traditionally, though, the Policy Committee uses the June Planning Workshop to notify members of any possible budget increases – and to limit the amount of any such increases – so that each UARG member will have at least preliminary UARG budget and dues information in hand by the time that member must set its own budget for 2018. Based on the information summarized above – and presented in greater detail in the following extensive Committee reports – UARG's Planning

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Committee recommends that the Policy Committee consider a year-2018 budget of between $8,200,000 and $8,500,000.

If the budget for next year is set within that range, how would that affect the amount of each individual member's dues for 2018? If UARG membership in 2018 were to be exactly the same as it is in 2017, if there are no changes to the UARG dues structure, and if the amount of fossil generation owned by each member does not change, then each member's dues would increase by no more than 3-4%. Any changes in membership, however, could affect members' dues. And, as always, if an individual member adds or shuts down generation or changes its mix of generation, that could result in a change to that member's UARG dues for 2018.

In summary, the Planning Committee is not yet recommending any overall increase in the UARG budget for 2018. But the next 30 months are important ones for UARG's members: if a new EPA leadership team can be assembled in the next six months and if that team is committed to addressing many of the excesses of the previous Administration, then 2018 will be a year in which much will be happening. And if UARG wants to play a meaningful role in those "happenings," then UARG should be prepared to be very busy next year.

With a budget of $8,200,000, UARG can play a meaningful role in a reasonable number of administrative proceedings and judicial proceedings arising therefrom. If, however, the new Administration is able to address a substantial number of initiatives of importance to UARG members, and if UARG wants to participate actively in such initiatives, then a budget of up to $8,500,000 likely will be needed.

Between now and the December 2017 UARG Policy Committee meeting, UARG's Planning Committee will continue to work with UARG's Technical Committees to set a reasonable overall budget for 2018. As part of that process, the Planning Committee will (a) gather as much information as possible concerning EPA's plans for 2018 and frankly assess the likelihood that the Agency will be able to implement such plans; and (b) seek thoughtful input from UARG members on these issues. Armed with such information, UARG's Planning Committee will be able to make a firm budget recommendation by the December 2017 Policy Committee meeting.

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We look forward to seeing many of you at our June 22-23 Planning Workshop. Prior to the Workshop, if you have questions about any of the issues discussed here or in the Technical Committee Reports that follow, please contact UARG's Chair, John McManus (614/716-1268); the Chair of UARG's Planning Committee, Kris Knudsen (980/373-3225); or any of the Technical Committee Chairs or legal contacts.

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2017 Utility Air Regulatory Participation
Summary of Receipts
As of June 20, 2017

	Invoiced 2017	Amount Collected	Unpaid Balance
AEP	555,395	555,395	0
Ameren	265,865	265,865	0
Consumers Energy	193,210	193,210	0
Dominion	358,918	358,918	0
DTE Energy Co.	301,827	301,827	0
Duke Energy Corp.	726,108	726,108	0
Dynegy Inc.	453,431	453,431	0
Eversource Energy/Pub Service of N. H.	102,000	102,000	0
FirstEnergy Corp.	332,046	332,046	0
Kansas City Power & Light Co.	225,551	225,551	0
LG&E & KU Energy LLC	268,376	268,376	0
Luminant*	352,036	176,018	176,018
Minnesota Power Co./ALLETE	102,000	102,000	0
NiSource Inc.*	189,920	142,440	47,480
Oglethorpe Power Corp.	188,584	188,584	0
Ohio Valley Electric Corp.	160,309	160,309	0
Otter Tail Power Co.	76,500	76,500	-
Pinnacle West/Arizona Public Service	186,309	186,309	0
Salt River Project	215,599	215,599	0
South Carolina Elec & Gas Co.* (SCANA)	181,977	90,989	90,989
Southern Company Services	663,453	663,453	0
Tri-State Generation & Transmission	167,418	167,418	0
Tucson Electric Co.*	170,413	85,207	85,207
Wabash Valley Power Association	102,000	102,000	0
WeEnergies	262,594	262,594	0
Total EEI Member Billing	**6,801,839**	**6,402,146**	**399,693**
American Coalition for Clean Coal Elec.	115,000	115,000	0
American Public Power Assoc.	115,000	115,000	0
EEI- J/E	295,097	295,097	0
NRECA*	295,097	295,097	0
National Mining Association	115,000	115,000	0
TVA	462,967	462,967	0
Total UARG Dues for 2017	**8,200,000**	**7,800,307**	**399,693**

NOTE: * Companies have opted to pay their 2017 UARG Dues quarterly

BUDGET SUMMARY TABLE FOR 2017* (Estimate of UARG Expenditures Through May 2017)			
List of Technical Committees	**2017 Allocation****	**Amount Spent Through May 2017 (Est.)**	**% Spent**
Ambient Standards	$ 919,100	$ 426,196	46.4%
Atmospheric Modeling	$ 182,811	$ 95,795	52.4%
Climate Change	$ 1,777,353	$ 723,213	40.7%
Control Technologies	$ 476,900	$ 203,164	42.6%
Hazardous Air Pollutants (HAPs)	$ 715,146	$ 489,951	68.5%
Measurement Techniques	$ 960,338	$ 414,248	43.1%
Nonattainment	$ 926,317	$ 428,662	46.3%
Plant Repair, Enforcement, and Permitting (PREP)	$ 416,557	$ 184,614	44.3%
Privilege Issues	$ 95,023	$ 5,107	5.4%
Regional Air Quality Effects	$ 940,453	$ 548,956	58.4%
Planning/General Coordinating	$ 460,002	$ 207,225	45.0%
Initially Allocated Funds	$ 7,870,000	$ 3,727,131	47.4%
Thus Far Unallocated Funds***	$ 330,000	$ 0	0.00%
Total Funds Available in 2017	**$ 8,200,000**	**$ 3,727,131**	**45.5%**

* UARG's total budget for 2017 is $8,200,000, all of which comes from the dues that members are paying in 2017. (All available funds from 2016 were spent by December 31, 2016; thus nothing remained to be carried over for use in 2017.)

** The amounts listed in this column are based on members' responses to the Planning Committee's annual planning ballot for 2017.

*** Because of the high level of uncertainty that UARG faces in 2017, the Planning Committee recommended that 4% of UARG's 2017 budget ($330,000) not be allocated at the beginning of the year, and instead, that such funds be set aside until later in the year, when the Policy Committee will be in a better position to allocate th

TABLE 2 YEAR 2018 BUDGET ESTIMATES		
UARG Technical Committee	**Current Allocation For 2017**	**Preliminary Estimate of Committee Funding Needs for 2018**
Ambient Standards	$ 919,100	$ 950,000
Atmospheric Modeling	$ 182,811	$ 180,000
Climate Change	$ 1,777,353	$ 1,800,000
Control Technologies	$ 476,900	$ 635,000
Hazardous Air Pollutants	$ 715,146	$ 695,000
Measurement Techniques	$ 960,338	$ 1,180,000
Nonattainment	$ 926,317	$ 1,175,000
Plant Repair, Enforcement, and Permitting	$ 416,557	$ 550,000
Privilege Issues	$ 95,023	$ 50,000
Regional Air Quality Effects	$ 940,453	$ 1,125,000
Planning/General Coordinating	$ 460,002	$ 460,000
Total Funds Allocated to Technical Committees	$ 7,870,000	$ 8,800,000
Additional Available Funds in 2017	$ 330,000	$ 0
Totals	$ **8,200,000**	$ **8,800,000**

2017 UARG BUDGET
(EXPENSES THROUGH MAY 2017)
REFLECTS AMOUNTS APPROVED AT THE MARCH 9-10, 2017 POLICY COMMITTEE MEETING

		Initial 2017 Allocations	Approved Authorizations	Spent to Date	Auth Funds Remaining - Authorized to date less spent to date
I.	Technical Committee Authorizations and Expenses				
	Ambient Standards (ASC)				
	Technical Consultants				
	JJJ/ASC/1		4,000.00	3,900.00	100.00
	NERA/ASC/5		85,000.00	25,500.00	59,500.00
	Undesignated		11,000.00	0.00	11,000.00
	Total Technical (ASC)		100,000.00	29,400.00	70,600.00
	Total Legal (ASC)		350,000.00	396,795.72	(46,795.72)
ASC	Total Technical & Legal	919,100.00	450,000.00	426,195.72	23,804.28
	Atmospheric Modeling (AMC)				
	Technical Consultants				
	AEC/AMC/1		5,000.00	0.00	5,000.00
	ERM/AMC/3		2,000.00	1,982.71	17.29
	Undesignated Funds		18,000.00	0.00	18,000.00
	Total Technical (AMC)		25,000.00	1,982.71	23,017.29
	Total Legal (AMC)		80,000.00	93,812.40	(13,812.40)
AMC	Total Technical & Legal	182,811.00	105,000.00	95,795.11	9,204.89
	Climate Change (CCC)				
	Technical Consultants/Outside Counsel				
	Undesignated Funds		0.00	0.00	0.00
	Total Technical/Outside Counsel (CCC)		0.00	0.00	0.00
	Total Legal (CCC)		1,000,000.00	723,213.02	276,786.98
CCC	Total Technical & Legal	1,777,353.00	1,000,000.00	723,213.02	276,786.98

2017 UARG BUDGET
(EXPENSES THROUGH MAY 2017)
REFLECTS AMOUNTS APPROVED AT THE MARCH 9-10, 2017 POLICY COMMITTEE MEETING

		Initial 2017 Allocations	Approved Authorizations	Spent to Date	Auth Funds Remaining - Authorized to date less spent to date
	Control Technologies (CTC)				
	Technical Consultants				
	JEC/CTC/1		64,986.41	70,992.66	(6,006.25)
	Undesignated		0.00	0.00	0.00
	Total Technical (CTC)		64,986.41	70,992.66	(6,006.25)
	Total Legal (CTC)		195,013.59	132,171.61	62,841.98
CTC	Total Technical & Legal	476,900.00	260,000.00	203,164.27	56,835.73
	Hazardous Air Pollutants (HAP)				
	Technical Consultants				
	RMB/HAP/1		15,000.00	9,460.00	5,540.00
	Undesignated		25,000.00	0.00	25,000.00
	Total Technical (HAP)		40,000.00	9,460.00	30,540.00
	Total Legal (HAP)		410,000.00	480,491.15	(70,491.15)
HAP	Total Technical & Legal	715,146.00	450,000.00	489,951.15	(39,951.15)
	Measurement Techniques (MTC)				
	Technical Consultants				
	RMB/MTC/1		25,000.00	5,042.50	19,957.50
	McRanie/MTC/1		5,000.00	560.00	4,440.00
	Undesignated		10,000.00	0.00	10,000.00
	Total Technical (MTC)		35,000.00	5,602.50	29,397.50
	Total Legal (MTC)		470,000.00	408,645.60	61,354.40
MTC	Total Technical & Legal	960,338.00	505,000.00	414,248.10	90,751.90

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2017 UARG BUDGET
(EXPENSES THROUGH MAY 2017)
REFLECTS AMOUNTS APPROVED AT THE MARCH 9-10, 2017 POLICY COMMITTEE MEETING

		Initial 2017 Allocations	Approved Authorizations	Spent to Date	Auth Funds Remaining - Authorized to date less spent to date
	Nonattainment (NAC)				
	Technical Consultants				
	JMI/NAC/5		735.00	735.00	0.00
	Undesignated		735.00	0.00	735.00
	Total Technical (NAC)		735.00	735.00	0.00
	Total Legal (NAC)		619,265.00	427,926.50	191,338.50
NAC	Total Technical & Legal	928,317.00	620,000.00	428,661.50	191,338.50
	Plant Repair, Enforcement & Permitting (PREP)				
	Technical/Outside Counsel				
	Undesignated		0.00	0.00	0.00
	Total Technical (PREP)		0.00	0.00	0.00
	Total Legal (PREP)		200,000.00	184,614.03	15,385.97
PREP	Total Technical & Legal	416,557.00	200,000.00	184,614.03	15,385.97
	Privilege Issues Committee (PIC)				
	Technical/Outside Counsel				
	Undesignated		0.00	0.00	0.00
	Total Technical/Outside Counsel (PIC)		0.00	0.00	0.00
	Total Legal (PIC)		30,000.00	5,107.30	24,892.70
PIC	Total Technical & Legal	95,023.00	30,000.00	5,107.30	24,892.70

2017 UARG BUDGET
(EXPENSES THROUGH MAY 2017)
REFLECTS AMOUNTS APPROVED AT THE MARCH 9-10, 2017 POLICY COMMITTEE MEETING

		Initial 2017 Allocations	Approved Authorizations	Spent to Date	Auth Funds Remaining - Authorized to date less spent to date
	Regional Air Quality Effects (RAQEC)				
	Technical Consultants				
	Undesignated		0.00	0.00	0.00
	Total Technical (RAQEC)		0.00	0.00	0.00
	Total Legal (RAQEC)		600,000.00	548,955.82	51,044.18
RAQ	Total Technical & Legal	940,463.00	600,000.00	548,955.82	51,044.18
	Planning Committee/General Coordinating Expenses				
	Technical Consultants				
	Undesignated		0.00	0.00	0.00
	Total Technical (PLAN/GEN)		0.00	0.00	0.00
	Total Legal (PLAN/GEN)		250,000.00	207,224.95	42,775.05
GEN	Total Technical & Legal	466,000.00	250,000.00	207,224.95	42,775.05
	Subtotal of Total Technical		265,721.41	118,172.87	147,548.54
	Subtotal of Total Legal		4,204,278.59	3,608,958.10	595,320.49
	Printing/Duplicating		0.00	0.00	0.00
	Travel & Incidentals (EEI)		0.00	0.00	0.00
	Other (Courier, Postage, Tel., etc.)		0.00	0.00	0.00
	Total Yearly Allocation	7,869,998.00	4,470,000.00	3,727,130.97	742,869.03
	Initially Unallocated Funds	330,002.00			
II.	Total Funds for 2017	8,200,000.00	4,470,000.00	3,727,130.97	742,869.03

Balance Remaining at end of year	4,472,869.03

2017 Technical Committee Authorizations

Requests Pending at the June 22-23, 2017 Policy Committee Meeting

Committee	2017 Allocation	Approved Authorizations	Pending	Balance
Ambient Standards	919,100.00	$450,000.00	$300,000.00	$169,100.00
Atmospheric Modeling	182,811.00	$105,000.00	$40,000.00	$37,811.00
Climate Change	1,777,353.00	$1,000,000.00	$400,000.00	$377,353.00
Control Technologies	476,900.00	$260,000.00	$100,000.00	$116,900.00
Hazardous Air Pollutants	715,146.00	$450,000.00	$200,000.00	$65,146.00
Measurement Techniques	960,338.00	$505,000.00	$205,000.00	$250,338.00
Nonattainment	926,317.00	$620,000.00	$250,000.00	$56,317.00
Plant Repair, Enforcement and Permitting	416,557.00	$200,000.00	$100,000.00	$116,557.00
Privilege Issues Committee	95,023.00	$30,000.00	$0.00	$65,023.00
Regional Air Quality Effects	940,453.00	$600,000.00	$260,000.00	$80,453.00
Planning/General Coordination	460,000.00	$250,000.00	$100,000.00	$110,000.00
TECHNICAL COMMITTEE TOTALS	**7,869,998.00**	**$4,470,000.00**	**$1,955,000.00**	**$1,444,998.00**
Unallocated Funds	**330,002.00**	**$0.00**	**$0.00**	
Grand Total	**8,200,000.00**	**$4,470,000.00**	**$1,955,000.00**	**$1,775,000.00**

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TECHNICAL CONSULTANT AND LEGAL SUPPORT FUNDING REQUESTS FOR THE PERIOD JUNE 23 TO EARLY SEPTEMBER 2017

TO BE PRESENTED TO THE UARG POLICY COMMITTEE ON JUNE 22-23, 2017

TOTAL FUNDING REQUESTS ..... $ 1,955,000.00

AMBIENT STANDARDS COMMITTEE		
THIRD FUNDING REQUEST - 2017		
1. TECHNICAL		$ 0
2. LEGAL	H&W	$ 300,000
– Continued participation in *Sierra Club v. EPA*, D.C. Cir. No. 13-1262, concerning EPA's August 2013 rule on designations for the 1-hour SO_2 NAAQS; – Continued participation in *Murray Energy Corp. v. EPA*, D.C. Cir. No. 15-1385, concerning EPA's October 2015 rule revising the ozone NAAQS; – Continued participation in *Masias v. EPA*, D.C. Cir. No. 16-1314, in which Sierra Club and others are challenging EPA's designation of areas around certain EGUs as unclassifiable or unclassifiable/attainment for the 1-hour SO_2 NAAQS; – Monitoring EPA's activities concerning implementation of the 2015 ozone NAAQS; – Monitoring EPA's activities concerning designations for the 1-hour SO_2 NAAQS; – – Continued participation in EPA's review of the primary NO_2 NAAQS, including commenting on a regulatory proposal concerning the standard; – Continued participation in EPA's review of the primary SO_2 NAAQS; – Continued participation in EPA's review of the secondary NAAQS for SOx and NOx; – Continued participation in EPA's review of the primary and secondary NAAQS for $PM_{2.5}$, including tracking industry studies evaluating possible health effects of exposure to $PM_{2.5}$ levels permitted by the current NAAQS – Supervision of Committee consultants; – Coordination with EPRI and other interested industries on these issues; and, – Telephone conferences and e-mail on these and other issues related to NAAQS with UARG members.		
COMMITTEE TOTAL:		**$ 300,000**

ATMOSPHERIC MODELING COMMITTEE		
THIRD FUNDING REQUEST - 2017		
1. TECHNICAL		**$ 0**
2. LEGAL	**H&W**	**$ 40,000**
Preparation of a petition for administrative reconsideration of aspects of the revised Modeling Guideline Meeting with EPA concerning modeling of low wind speed conditions Monitoring EPA's activities with regard to memoranda interpreting the Modeling Guideline Monitoring activities of EPA's Model Clearinghouse Responding to EPA's activities with regard to the use of modeling to make designations and in SIP development for the 1-hour SO_2 NAAQS. Monitoring and responding to EPA's activities concerning modeling of $PM_{2.5}$ and O_3, both for permitting purposes and for SIP development. Supervision of Committee consultants Coordination with other industries on modeling issues Telephone conferences and email with Committee members concerning air quality modeling.		
COMMITTEE TOTAL:		**$ 40,000**

CLIMATE CHANGE COMMITTEE		
THIRD FUNDING REQUEST - 2017		
1. TECHNICAL		
None requested		
2. LEGAL	**H&W**	**$400,000**
– **Participation in proceedings and litigation involving the establishment of GHG performance standards for new, modified, and reconstructed EGUs under § 111(b).** This activity involves possible participation in litigation in the D.C. Circuit over the rule should the court deny the pending motion to hold the case in abeyance, including possible preparation for and participation in oral argument; preparation of a possible replacement for the current section 111(b) rule; possible rulemaking activity on a repeal of the current section 111(b) rule; communications with UARG members; and coordination with states and other stakeholder groups. – **Participation in proceedings and litigation involving the establishment of guidelines for GHG performance standards for existing EGUs under § 111(d) (the Clean Power Plan).** This activity involves possible participation in litigation in the D.C. Circuit over the rule should the court deny the pending motion to hold the case in abeyance; review of any opinion that could be issued by the D.C. Circuit; preparation of a possible replacement for the Clean Power Plan; possible rulemaking activity on the repeal of the Clean Power Plan; communications with UARG members; and coordination with states and other stakeholder groups. – **Participation in proceedings and litigation involving the denial of petitions for reconsideration of the Clean Power Plan.** This activity involves possible participation in litigation in the D.C. Circuit should the court deny the pending motion to hold the case in abeyance; communications with UARG members regarding the litigation; and continued coordination with states and other stakeholder groups. – **Participation in proceedings and litigation involving the authority of EPA to revise emission guidelines under § 111(d).** This activity involves possible participation in rulemaking activity on EPA's reconsideration of the revised guidelines under § 111(d) for emissions of landfill gas from municipal solid waste landfills and possible participation in litigation depending on whether the issue on which UARG is interested (whether § 111(d) guidelines can be revised) is addressed on reconsideration; possible preparation of a briefing proposal; communications with UARG members; and continued coordination with landfill groups that are also petitioners in the litigation. – **Tracking and reporting** on other EPA activities related to potential regulation of carbon dioxide and other GHG emissions under the CAA and petitions to EPA or citizen suits seeking such regulation; monitoring litigation and other proceedings on such matters; responding to members' questions; coordinating with the Committee co-chairs; and preparing for and participating in the September Policy Committee meeting.		
COMMITTEE TOTAL		**$400,000**

CONTROL TECHNOLOGIES COMMITTEE		
THIRD FUNDING REQUEST - 2017		
1. TECHNICAL		**$ 40,000**
Analysis of technical aspects of final GHG NSPS and emission guidelines, potential revised NSPS and emission guidelines on reconsideration, and other CO_2 control technology issues, with emphasis on supporting litigation and potential reconsideration proceedings; update white paper on control technology cost; technical support on HAPs issues, including combustion turbine MACT risk and technology review; combustion turbine NSPS; reconsideration of NSPS for coal preparation plants; preparation for annual meetings [illegible] on control technology issues.		
2. LEGAL	**H&W**	**$ 60,000**
Assist Climate Change Committee through technical support of UARG participation in litigation and administrative proceedings related to final GHG NSPS and emission guidelines under CAA § 111, including potential reconsideration proceedings; oversee preparation of revised white paper on control technology cost by UARG's consultant; provide technical support on HAPs issues, including combustion turbine MACT risk and technology review; track developments in reconsideration of combustion turbine NSPS and NSPS for coal preparation plants; supervise committee consultants, and [illegible] members and EPA.		
COMMITTEE TOTAL		**$ 100,000**

HAZARDOUS AIR POLLUTANTS COMMITTEE		
THIRD FUNDING REQUEST - 2017		
1. TECHNICAL	**RMB**	**$ 0**
– Technical support for UARG response to EPA's CAA § 112 rulemaking efforts as well as support in implementation of those rules. – Technical support for participation in combustion turbine MACT risk and technology review proceedings.		
2. LEGAL	**H&W**	**$ 200,000**
– Participate in litigation challenging EPA's Supplemental Finding for the Mercury and Air Toxics Standards (MATS) and EPA's denial of reconsideration for the 2012 MATS rule – Coordinate member efforts and strategy regarding EPA review and potential reconsideration of Supplemental Finding – Participate in proceedings regarding combustion turbine MACT residual risk and technology review. – Continue work regarding implementation and revision of the MATS rule and related portions of the Industrial Boiler MACT (IB MACT) rule. – Participate in litigation and reconsideration proceedings for revised Risk Management Program (RMP) rule. – Coordinate with EPRI regarding eventual residual risk and technology review (RTR) of MATS rule. – Monitor and participate, as necessary, in MATS-related litigation currently being held in abeyance in the D.C. Circuit. – Various ongoing actions, including: coordination with EPRI on various air toxic matters, including RTR and IRIS review of organic arsenic and chromium-VI; tracking of other CAA §112 regulatory developments; and response to member questions.		
COMMITTEE TOTAL		**$ 200,000**

MEASUREMENT TECHNIQUES COMMITTEE		
THIRD FUNDING REQUEST - 2017		
1. TECHNICAL/OUTSIDE LEGAL		**$ 5,000**
Support for work related to implementation of Part 75 and the associated reporting formats; monitoring and compliance testing issues in New Source Performance Standards (NSPS) for boilers and combustion turbines; monitoring and compliance testing issues in National Standards for Hazardous Air Pollutants (NESHAP); EPA performance specifications and quality assurance procedures for continuous emissions monitoring systems (CEMS); EPA test methods and guidance; ASTM methods and procedures; and continued general technical support for member questions and other basic Committee functions.		
2. LEGAL	**H&W**	**$ 200,000**
– Continued work related to implementation of Part 75 and the associated reporting formats, and litigation over final rule revisions. – Continued work related to Title V monitoring. – Continued work related to monitoring and compliance issues in EPA's rulemakings and reconsideration proceedings on NSPS and in litigation over final rules. – Continued work related to monitoring and compliance in NESHAP, and associated test methods and performance specifications for hazardous air pollutants, and in litigation over final rule revisions. – Continued work related to particulate matter and opacity monitoring issues PS 11 and Procedure 2 for PM CEMS, the Fine Particulate Matter Implementation Rules, and in SIP revisions for opacity. – Continued work related to EPA's Greenhouse Gas (GHG) reporting rule. – Continued work related to EPA's SIP Policy on Excess Emissions During Startup, Shutdown, and Malfunction, SIP Calls, and other SIP issues, including litigation over the final SIP Calls. – Continued work related to other draft or proposed test methods; and general technical support for member questions and other basic Committee functions.		
COMMITTEE TOTAL		**$205,000**

NONATTAINMENT COMMITTEE		
THIRD FUNDING REQUEST - 2017		
1. TECHNICAL		
No funds requested.		
2. LEGAL	**H&W**	**250,000**
Participation in litigation concerning EPA's Cross-State Air Pollution Rule (CSAPR) Update Rule addressing interstate transport with respect to the 2008 ozone NAAQS, including research for, preparation of, and coordination with other industry petitioners regarding the industry petitioners' joint opening merits brief, due August 21, and coordination with state petitioners with respect to those parties' opening merits brief, also due August 21. Review of technical support documents and other EPA documents and other information related to the rule, for preparation of the briefs. Monitoring of related EPA proceedings concerning implementation of the Clean Air Act's interstate transport provisions. Review of any proposed EPA actions on petitions filed under section 126 of the Act addressing interstate transport, and participation as appropriate in any EPA notice-and-comment proceedings on whether to grant or deny such petitions or to impose emission reduction obligations in response to any such petitions. Work related to other aspects of NAAQS implementation, including review of NAAQS implementation documents issued by EPA. Monitoring and reporting as necessary on EPA activities and guidance on other nonattainment issues; monitoring litigation, rulemakings, and other proceedings on significant nonattainment and other NAAQS implementation issues; responding to members' questions; preparing committee budget materials; and preparing for and participating in meetings of the Policy and Planning Committees		
COMMITTEE TOTAL:		**250,000**

PLANT REPAIR, ENFORCEMENT, AND PERMITTING COMMITTEE		
THIRD FUNDING REQUEST - 2017		
1. TECHNICAL		
None Requested		
2. LEGAL	**H&W**	**$100,000**
– Continued work related to potential administrative actions related to the New Source Review program; – Continued work related to monitoring and responding to EPA's actions related to guidance on PSD significant impact levels (SILs) for $PM_{2.5}$ and ozone and action related to Maximum Emission Rates for Precursors (MERPs); – Continued work, if necessary, related to "reasonable possibility in recordkeeping" rulemaking, including responding to member inquiries regarding application of the rule; and monitoring of possible reconsideration by EPA and litigation in D.C. Circuit; – Continued work, if necessary, related to other pending NSR rulemakings, including review and analysis of any EPA action; participation in reconsideration proceedings (e.g., aggregation rule); coordination with other industry; and activities associated with potential litigation in D.C. Circuit; – Continued work related to EPA and State permitting actions involving PSD for Greenhouse Gases and related issues, including coordination with UARG committees (Climate Change and Control Technologies) on monitoring developments and responding to member inquiries; – Continued work related to track EPA, state and environmental groups' efforts to pursue enforcement actions against coal-fired power plants, and to coordinate to the extent possible utility submittals related to proposed projects; – Continued work regarding monitoring EPA's actions concerning the rulemaking on mandatory guidelines related to submission and action on Title V petitions for objection; – Continued work regarding monitoring and responding to EPA's actions concerning the rulemaking on establishing significant emissions rates for greenhouse gases under the PSD program; – Continued tracking-only of other areas of concern to the Committee; and – Continued general technical support for member questions and other basic Committee functions.		
COMMITTEE TOTAL:		**$100,000**

PRIVILEGE ISSUES COMMITTEE		
THIRD FUNDING REQUEST – 2017		
TECHNICAL/OUTSIDE LEGAL		
None requested		
LEGAL	**H&W**	**$ 0**
COMMITTEE TOTAL		**$ 0**

REGIONAL AIR QUALITY EFFECTS COMMITTEE		
THIRD FUNDING REQUEST - 2017		
1. TECHNICAL		
No funds requested.		
2. LEGAL	**H&W**	**260,000**
Participation in D.C. Circuit litigation on EPA's January 10, 2017 rule revising the regional haze and other visibility regulations, including negotiation with other parties and preparation of a joint briefing proposal (due July 24); research for, preparation of, and coordination with other industry petitioners regarding UARG and other industry petitioners' joint opening merits brief; coordination with state petitioners regarding the state petitioners' opening brief; and review of other documents and information related to the rule, as necessary, in connection with preparation of the brief. Preparation, as necessary, of any supplement to UARG's March 2017 petition for partial administrative reconsideration of the January 2017 rule. Continued participation in litigation on EPA's January 2016 rule regarding "reasonable progress" regional haze requirements for Texas and Oklahoma and EPA's reasonable-progress policy under the regional haze rules. Continued participation as a petitioner and an intervenor-respondent in D.C. Circuit litigation involving EPA's 2012 rule that provided that compliance with the Cross-State Air Pollution Rule (CSAPR) may b[illegible] deemed to satisfy EGUs' best available retrofit techn[illegible] requirements for SO_2 and NOx (the "CSAPR=BART" [illegible] disapproved SIPs that relied on the Clean Air Interstat[illegible] satisfy EGU BART requirements, and revoked the "CAIR=[illegible] provision – including preparation for and participation in oral argument for UARG as a petitioner and as an intervenor-respondent. Continued participation in other pending litigation concerning related EPA actions. Participation as necessary in and monitoring of other proceedings regarding implementation of the regional haze rules by EPA and states, including key regional haze SIP approval/disapproval proceedings and FIP rulemakings. Monitoring and reporting on EPA activities and guidance concerning regional haze program requirements and related regional air quality issues; monitoring and reporting on other developments relevant to visibility requirements and related issues; responding to members' questions; preparing committee budget materials; and preparing for and participating in meetings of the Policy and Planning Committees.		
COMMITTEE TOTAL:		**260,000**

PLANNING/GENERAL COORDINATION		
THIRD FUNDING REQUEST – 2017		
LEGAL	**H&W**	**$ 100,000**
Follow-up from the June 2017 Policy Committee meeting/Planning Workshop, including continued work to track Technical Committee expenditures and update the UARG budget for 2017 and continuation of discussions with Committee representatives concerning their planned projects for the remainder of 2017 and for 2018. Communications with individual UARG members concerning their membership plans for 2018 and the likely level of members' dues for 2018 (taking into account any changes to the UARG dues structure). Continuation of meetings and other informal communications with incoming EPA decision-makers concerning the Agency's overall approach to the regulation of emissions from electric generating units and its plans for the remainder of this Administration. Coordination with EEI concerning UARG dues and membership issues, and record-keeping for 2017 and planning for 2018. Continuation of efforts to recruit new members for 2017 and 2018. Continued coordination with other [illegible] generating industry groups.		
COMMITTEE TOTAL:		**$100,000**

NOMINATIONS TO CHAIR UARG'S TECHNICAL COMMITTEES
(TERMS BEGINNING IN JUNE 2017)

Committee	Current Chairs	Term Expires 6/2017	Term Expires 6/2018	Term Expires 6/2019	Nominees To Serve Beginning 6/2017
Policy and Steering Audit	John McManus		X		
Planning	Kris Knudsen	X			Kris Knudsen
Ambient Standards	Lenny Dupuis		X		
	Michael Lebeis			X	
Atmospheric Modeling	Ken Anderson		X		
	Brian Kolts	X			Brian Kolts
Climate Change	Janet Henry			X	
	Mike Stroben		X		
	Thomas Lee Wells	X			Thomas Lee Wells
					Andy Berger
Control Technologies	Robert Greco			X	Melissa Allen
	William C. Rogers	X			William C. Rogers
	Thomas Lee Wells		X		
Hazardous Air Pollutants	Michael Geers	X			Michael Geers
	Justin Walters		X		
Measurement Techniques	Dale Evely	X			Dale Evely
	David Nuckols		X		
Nonattainment	Donald Houston	X			Don Houston
	Michael Stroben		X		
Plant Repair, Enforcement, and Permitting	Julie Ezell			X	
	Charles Spell		X		
	Douglas Weber	X			Douglas Weber
Privilege Issues	Garry Rice	X			Garry Rice
Regional Air Quality Effects	Michael Kafka		X		
	Karilee [illegible]			X	

CASE NO. 18-60116
UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

SIERRA CLUB; NATIONAL PARKS CONSERVATION ASSOCIATION; ENTERGY LOUISIANA, LLC, Petitioners,

VERSUS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY; ANDREW R. WHEELER, in his official capacity as Acting Administrator of the United States Environmental Protection Agency, Respondents.

On Petition for Review of Final Action of the
United States Environmental Protection Agency

FINAL BRIEF OF RESPONDENT-INTERVENORS ENTERGY LOUISIANA, LLC, CLECO POWER LLC, AND UTILITY AIR REGULATORY GROUP

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Counsel for Respondent-Intervenor
Utility Air Regulatory Group

CERTIFICATE OF INTERESTED PERSONS

The undersigned counsel of record certify that the following listed persons and entities as described in the fourth sentence of Fifth Circuit Rule 28.2.1 have an interest in the outcome of this case. These representations are made so that the judges of this court may evaluate possible disqualification or recusal.

1. Petitioners and Respondent-Intervenors:

   a. *Cleco Power LLC*: Cleco Power LLC is a wholly owned subsidiary of Cleco Corporate Holdings LLC.

   b. *Counsel for Cleco Power LLC*: Megan H. Berge; Jared R. Wigginton; Emily J. Wilson (Baker Botts L.L.P.)

   c. *Entergy Louisiana, LLC*: Entergy Louisiana, LLC is a wholly owned subsidiary of Entergy Corporation.

   d. *Counsel for Entergy Louisiana, LLC*: Debra J. Jezouit; William M. Bumpers; Aaron M. Streett; Allison Watkins Mallick (Baker Botts L.L.P.); Susan Margaret Floyd (Entergy Services, Inc.)

   e. *Sierra Club and National Parks Conservation Association*

   f. *Counsel for Sierra Club and National Parks Conservation Association*: Charles McPhedran; Shannon Fisk (Earthjustice); Matthew Gerhart; Joshua Smith (Sierra Club)

   g. *Utility Air Regulatory Group*: Utility Air Regulatory Group ("UARG") is a not-for-profit association of individual electric generating companies and national trade associations. UARG has no outstanding shares or debt securities in the hands of the public and has no parent company. No publicly held company has a 10% or greater ownership interest in UARG.

   h. *Counsel for the Utility Air Regulatory Group*: Norman W. Fichthorn; Aaron M. Flynn (Hunton Andrews Kurth LLP)

2. Respondents:

   a. *United States Environmental Protection Agency; Andrew J. Wheeler, Acting Administrator of the United States Environmental Protection Agency ("EPA")*

   b. *Counsel for EPA*: Michele L. Walter; Sheila Baynes; Nora Greenglass; Daniel Schramm; Adaobi Nwankwo

3. Amicus curiae:

   a. *Louisiana Department of Environmental Quality ("LDEQ")*

   b. *Counsel for LDEQ*: Dwana C. King; Charlotte M. Goudeau

Dated: December 18, 2018

Respectfully submitted,

s/ Debra J. Jezouit
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Attorney of Record for Entergy Louisiana, LLC

s/ Megan H. Berge
Megan H. Berge
Attorney of Record for Cleco Power LLC

s/ Norman W. Fichthorn
Norman W. Fichthorn
Attorney of Record for Utility Air Regulatory Group

STATEMENT REGARDING ORAL ARGUMENT

Respondent-Intervenors Entergy Louisiana, LLC, Cleco Power LLC, and Utility Air Regulatory Group respectfully request oral argument in this case. Oral argument will assist fair consideration of the complicated legal issues, highly technical facts, and a voluminous administrative record and will enable the parties to fully address the Court's questions and concerns.

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40 C.F.R. § 51.308(f) 4, 10

Memorandum from John Calcagni, Director, Air Quality Management Division, Office of Air Quality Planning & Standards, to Air Division Directors, EPA Regional Offices I-X, July 9, 1992 ("Calcagni Memo"), located at http://www.epa.gov/sites/production/files/2015-07/documents/procsip.pdf 29, 31

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GLOSSARY

BART	Best Available Retrofit Technology
CAA or the Act	Clean Air Act
dv	Deciview
EGU	Electric generating unit
EPA or the Agency	U.S. Environmental Protection Agency
FFA	Five Factor Analysis
FGD	Flue-gas desulfurization
FIP	Federal Implementation Plan
lb/mmBtu	Pounds per million British thermal units
LDEQ	Louisiana Department of Environmental Quality
NOx	Nitrogen oxides
S&L	Sargent & Lundy
SIP	State Implementation Plan
SO_2	Sulfur dioxide
TSD	Technical support document

JURISDICTIONAL STATEMENT

EPA published a final rule on December 21, 2017, entitled "Approval and Promulgation of Implementation Plans; Louisiana; Regional Haze State Implementation Plan." 82 Fed. Reg. 60,520 (Dec. 21, 2017) ("Final Rule"), Index #7, App.18.[1] Petitioners Sierra Club and National Parks Conservation Association ("Environmental Petitioners") filed with this Court a petition for review of the Final Rule on February 16, 2018. Doc. No. 00514352526. Because the Final Rule applies only to Louisiana, this Court, as "the United States Court of Appeals for the appropriate circuit," has jurisdiction and venue, 42 U.S.C. § 7607(b)(1), except that Environmental Petitioners' claims concerning Louisiana's Long-Term Strategy are time-barred (*see infra* Argument III).

The revisions to the Louisiana Regional Haze State Implementation Plan ("SIP"), which EPA approved in the Final Rule, establish requirements for several power plants in Louisiana, including the Roy S. Nelson Power Plant ("Nelson"), owned and operated by Entergy. 82 Fed. Reg. at 60,523, Index #7, App.18. Environmental Petitioners argue that certain of the requirements for Nelson are insufficiently stringent. Environmental Petitioners also claim EPA erroneously approved Louisiana's Long-Term Strategy because Louisiana did not require

[1] This Brief cites documents listed in EPA's certified index of record materials (cited as "Index #__, App.__"). An appendix of these materials will be filed separately in accordance with 5th Cir. R. 30.2(a).

"reasonable progress" controls for Cleco's Dolet Hills facility. *Id.* at 60,520, 60,539-40, Index #7, App.18.

STATEMENT OF ISSUES

1. Whether EPA lawfully approved Louisiana's selection of low-sulfur coal as "Best Available Retrofit Technology" ("BART") for emissions of sulfur dioxide ("SO_2") from Unit 6 of Entergy's Nelson power plant, in light of (a) Louisiana's comprehensive review of the information submitted to it by EPA and Entergy, (b) Louisiana's weighing of the five required Clean Air Act factors, and (3) the Act's requirement that EPA defer to state determinations.
2. Whether Environmental Petitioners' challenge to Louisiana's Long-Term Strategy is time-barred by the Act's 60-day limitation because Environmental Petitioners did not challenge EPA's final 2012 partial limited approval affirming, among other things, the State's threshold selection of reasonable progress sources.
3. If Environmental Petitioners' challenge to Louisiana's Long-Term Strategy is not time-barred, whether EPA lawfully approved Louisiana's Long-Term Strategy, which addressed each concern EPA identified in its 2012 disapprovals of Louisiana's SIP.

STATEMENT OF THE CASE

I. Background

Environmental Petitioners challenge EPA's approval of Louisiana's SIP addressing "regional haze." The Clean Air Act's ("CAA") Regional Haze Program requires states to periodically submit SIPs to reduce visibility impairment in certain national parks, wilderness areas, and national memorial parks that results from anthropogenic air pollution, with the goal of achieving natural visibility conditions in these areas. 42 U.S.C. § 7491(a)(1). EPA aims to achieve this national goal by 2064. 64 Fed. Reg. 35,714, 35,731-32 (July 1, 1999). The Act assigns responsibility for implementation of the Program to states and requires EPA to approve SIPs that satisfy the Act's requirements. *Texas v. EPA*, 690 F.3d 670, 675 (5th Cir. 2012); *Am. Corn Growers Ass'n v. EPA*, 291 F.3d 1, 2 (D.C. Cir. 2002).

Environmental Petitioners challenge EPA's approval of two aspects of Louisiana's SIP: (1) Louisiana's determination of BART for Entergy's Nelson Unit 6 and (2) the "Long-Term Strategy" for complying with the Act's requirement that states make "reasonable progress" toward improved visibility in protected areas. Fundamentally, Environmental Petitioners disagree with Louisiana's discretionary decisions under the Act. They seek to compel EPA to disapprove

those determinations, requiring Louisiana to perform new analyses and potentially make different decisions.

II. The Clean Air Act's Regional Haze Program

Respondent-Intervenors supplement EPA's description of the legal framework of the Regional Haze Program as it pertains to the arguments in this Intervenor-Response Brief as follows.

SIPs must be updated and submitted to EPA periodically, with the next SIP submittals due in 2021, and then in 2028, and every 10 years thereafter. 40 C.F.R. § 51.308(f). The SIP at issue in this case was designed to address Louisiana's Regional Haze obligations for the first "planning period" of 2008 through 2018. Louisiana Regional Haze SIP Submittal at 2 (June 13, 2008), Index #9, App.19. Accordingly, this first "planning period" will shortly conclude, and Louisiana will turn its focus to preparing its SIP for the second planning period, which is due in 2021. 40 C.F.R. § 51.308(f).

III. Procedural History

Respondent-Intervenors supplement EPA's description of the procedural history as it pertains to the arguments in this Intervenor-Response Brief as follows.

Louisiana submitted its first Regional Haze SIP on June 13, 2008. *See* 82 Fed. Reg. at 60,521, Index #7, App.18. In two separate rulemakings, EPA issued limited disapprovals of that SIP due to: (1) Louisiana's reliance on the Clean Air

Interstate Rule ("CAIR")[2] as an alternative to source-specific SO_2 and nitrogen oxides ("NOx")[3] limits based on the installation of BART for electric generating units ("EGUs"); and (2) BART determinations for four non-EGU facilities that EPA viewed as deficient. 77 Fed. Reg. 33,642, 33,643 (June 7, 2012) ("2012 National Rule"); 77 Fed. Reg. 39,425, 39,426 (July 3, 2012) ("2012 Regional Rule") (collectively, "the 2012 Rules"). In the 2012 Regional Rule, EPA issued a partial limited approval as to the remainder of the SIP, including Louisiana's Long-Term Strategy and its selection of candidate sources for reasonable progress controls, which did not include Dolet Hills. 77 Fed. Reg. at 39,426.

In June 2017, Louisiana submitted an SO_2 BART analysis to EPA for Nelson Unit 6 and set an emission limit for that unit based on low-sulfur coal as BART. June 2017 SIP Submittal, Index #22, App.38. In July 2017, EPA proposed to approve the Nelson SO_2 BART emission limit. 82 Fed. Reg. 32,294 (July 13, 2017), Index #6, App.17.

On December 21, 2017, EPA took final action on the July 2017 proposed rule (and on a separate proposed rule to approve BART determinations for EGUs

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[2] CAIR was an EPA emission-trading rule that was in place when Louisiana drafted its original SIP in 2008 but was judicially invalidated by the time EPA took action on the SIP in 2012. *See North Carolina v. EPA*, 531 F.3d 896 (D.C. Cir. 2008); *reh'g granted in part*, 550 F.3d 1176 (D.C. Cir. 2008).

[3] SO_2 and NOx are two constituents of emissions that can undergo chemical reactions in the atmosphere to form haze.

other than Nelson, 82 Fed. Reg. 22,936 (May 19, 2017)). 82 Fed. Reg. at 60,520, Index #7, App.18. As proposed, the Final Rule approves Louisiana's determination that low-sulfur coal constitutes BART for SO_2 emissions from Nelson Unit 6. *Id.* at 60,524, Index #7, App.18. This action concluded EPA's rulemakings on the Louisiana SIP, as EPA previously partially approved the SIP in the 2012 Regional Rule.

SUMMARY OF ARGUMENT

This Court should reject Environmental Petitioners' challenges to EPA's approval of Louisiana's Regional Haze SIP. The CAA delegates broad discretion to states to weigh enumerated statutory factors and requires EPA to approve SIPs that result from states' reasonable consideration of those factors. EPA properly concluded Louisiana rationally evaluated the relevant factors in establishing BART for Nelson. EPA also properly determined that Louisiana's Long-Term Strategy did not need to be reconsidered by the revised SIP because it had already been approved by the 2012 Regional Rule.

First, Louisiana reasonably concluded low-sulfur coal constitutes BART for Nelson Unit 6. To decide what constitutes BART for a source, a state must assess a range of potential control technologies. Some are extremely expensive; in this case, the control technology favored by Environmental Petitioners (a dry scrubber) for Nelson Unit 6 would require a capital investment of **$395 million**. App. A to

Entergy Five Factor Analysis ("FFA"), at 2, Index #21.70, App.35. The CAA requires states to balance costs with four other factors: the energy and nonair-quality environmental impacts of compliance, existing pollution control technology in use at the source, the source's remaining useful life, and the visibility improvements that may reasonably be anticipated to result from the use of such technology. *See* 42 U.S.C. § 7491(g)(2). Accordingly, the Act contemplates that states may decline to impose controls if the costs are not justified in light of other factors.

In making its BART determination for Nelson Unit 6, Louisiana considered analyses submitted by Entergy and EPA that fully addressed the five statutory factors. Entergy's and EPA's analyses were substantially consistent, with one exception: the cost analysis for potential control technologies. Entergy's analysis showed low-sulfur coal to be the most cost-effective means of significantly reducing SO_2 emissions, and that a dry scrubber would cost nearly eight times as much on an annual basis to achieve the same visibility results. Entergy based its analysis on *site-specific* information about the costs of implementing these two emissions controls *at Nelson*. In contrast, EPA's analysis showed that a dry scrubber would be less expensive than low-sulfur coal. But EPA based its analysis on *generic* information about dry scrubber installations and on a faulty analysis of coal purchases at Nelson.

Environmental Petitioners seize on this point of divergence to argue EPA should have disapproved Louisiana's determination that low-sulfur coal is BART. However, Entergy's analysis, which was submitted to Louisiana, clearly demonstrated that low-sulfur coal is more cost-effective than a dry scrubber when considering site-specific factors that impact control costs. EPA appropriately recognized, when it approved Louisiana's SIP, that the state considered sufficient cost information to support its determination that low-sulfur coal is BART based on a balancing of the statutory factors.

In this case, EPA's approval was mandatory, as EPA may not force states to weigh the five factors in a certain way, nor may it supplant states' reasonable assessments of the factors with an alternative judgment EPA may prefer. Environmental Petitioners' preference that Louisiana impose more expensive controls does not support vacatur of EPA's approval. Instead, Environmental Petitioners would need to show that Louisiana failed to consider statutory factors or that EPA or Louisiana otherwise acted arbitrarily in assessing the relevant factors and record evidence. Their efforts to make this showing are unavailing.

Second, Environmental Petitioners' arguments with respect to Louisiana's Long-Term Strategy likewise fail. EPA promulgated a partial limited approval as to the vast majority of Louisiana's 2008 SIP—including its screening analysis for reasonable progress sources—in the 2012 Regional Rule. Although EPA's action

finalized, *inter alia*, Louisiana's decision not to require reasonable progress controls at Dolet Hills, Environmental Petitioners failed to challenge that action at that time. Because Environmental Petitioners waited nearly *six years* to challenge Louisiana's screening analysis for reasonable progress sources instead of doing so within *sixty days* of the 2012 Regional Rule, as the Act requires, their challenge to Louisiana's Long-Term Strategy is time-barred.

Even assuming, *arguendo*, that their challenge is properly before this Court, it fails on the merits. EPA's approval of Louisiana's Long-Term Strategy was reasonable and lawful. Pointing to one sentence in EPA's partial disapproval of Louisiana's 2008 SIP, Environmental Petitioners claim EPA directed Louisiana to reconsider its entire Long-Term Strategy, including reasonable progress controls for Dolet Hills. But EPA gave no such direction. Rather, EPA directed Louisiana to revisit *only* (1) its reliance on CAIR as an alternative to BART regarding EGUs' SO_2 and NOx emissions, including those from the only EGU Louisiana had identified as potentially subject to "reasonable progress" controls in its Long-Term Strategy (*i.e.*, the group of EGUs known as Big Cajun II) and (2) its BART determinations for four non-EGUs. Neither instruction implicated Dolet Hills, and Louisiana squarely addressed both issues in its SIP revisions. EPA's approval of the revised SIP was thus lawful.

As approved by EPA, Louisiana's SIP will ensure visibility impairment continues to decline, even though impairment already is below the level needed to stay on track to meet the national visibility goal. Louisiana Dept. of Envtl. Quality, Proposed Regional Haze 5 Year Report, at 44, 50 (July 20, 2018), http://edms.deq.louisiana.gov/app/doc/view.aspx?doc=11219158&ob=yes. In achieving these visibility improvements, Louisiana reasonably balanced all required statutory factors when determining BART and developing its Long-Term Strategy. While Environmental Petitioners would prefer the SIP achieve even greater reductions, additional reductions will be considered for future SIPs, which are due to EPA in 2021, 2028, and every 10 years thereafter. 40 C.F.R. § 51.308(f). Notably, even if EPA had disapproved the SIP submittal, resulting in new determinations that led to more stringent controls, such controls would not be implementable by December 2018—the end of the current planning period. EPA's SIP approval properly recognized Louisiana's primacy in implementing the Regional Haze Program and was reasonable and lawful given the sufficient bases for Louisiana's determinations.

ARGUMENT

I. Standard of Review

"The EPA's decision [to approve a SIP] is valid unless it is 'arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.'" *Luminant Generation Co. LLC v. EPA*, 714 F.3d 841, 850 (5th Cir. 2013) (quoting 5 U.S.C. § 706(2)(A)). "Under this deferential standard, the Court may not substitute its own judgment for that of the agency." *City of Abilene v. EPA*, 325 F.3d 657, 664 (5th Cir. 2003) (quoting *Texas Oil & Gas Ass'n v. EPA*, 161 F.3d 923, 933-34 (5th Cir. 1998)). If "the agency's reasons and policy choices conform to minimal standards of rationality, then its actions are reasonable and must be upheld." *Texas Oil & Gas Ass'n*, 161 F.3d at 934 (citing *Small Refiner Lead Phase–Down Task Force v. EPA*, 705 F.2d 506, 521 (D.C. Cir. 1983); *Chem. Mfrs. Ass'n v. EPA*, 870 F.2d 177, 199 (5th Cir. 1989)).

II. EPA lawfully approved Louisiana's BART determination for Nelson.

Environmental Petitioners distort the facts to paint the BART determination for Nelson Unit 6 as unreasonable and inconsistent with EPA's prior approvals of state BART determinations. The record, however, reflects that EPA properly deferred to Louisiana's determination, which reasonably weighed all statutory factors and considered the detailed information submitted by both Entergy and EPA.

A. EPA must defer to state authority under the Regional Haze Program.

EPA properly deferred to Louisiana's authority under the Act when it approved the state's BART determination. Environmental Petitioners disregard EPA's duty to defer to discretionary state decisions in SIPs—something this Court has long emphasized.

States have "wide discretion" in formulating SIPs. *See Union Elec. Co. v. EPA*, 427 U.S. 246, 250 (1976). EPA's BART Guidelines endorse states' primacy in implementing the Regional Haze Program. The Guidelines emphasize states' wide latitude in making BART determinations, which are necessarily fact-specific. 70 Fed. Reg. 39,104, 39,116 (July 6, 2005) ("BART determinations are based on the totality of circumstances in a given situation"); *id.* at 39,127 ("States have flexibility in how they calculate costs."); *id.* at 39,129 ("Because each Class I area is unique, we believe States should have flexibility to assess visibility improvements due to BART controls by one or more methods, or by a combination of methods").

EPA's role is relatively narrow: it assures statutory compliance but is not to flyspeck or second-guess states' weighing of factors and their policy choices. Conversely, the state's purview is broad: "So long as the national standards are met, the State may select whatever mix of control devices it desires." *Union Elec.*, 427 U.S. at 266. If the state complies with the statute, EPA must approve the SIP.

Texas v. EPA, 829 F.3d 405, 426 (5th Cir. 2016) ("EPA has 'no authority to question the wisdom of a State's choices of emission limitations if they are part of a plan which satisfies the standards of [§ 7410(a)(2)].'") (citing CAA § 110(a)(2) and quoting *Train v. Nat. Res. Def. Council, Inc.*, 421 U.S. 60, 79 (1975)); *Texas v. EPA*, 690 F.3d at 676 ("[I]f . . . a revised SIP meets the statutory criteria of the CAA, then the EPA *must* approve it") (emphasis added) (citations omitted).

As this Court has explained:

> The EPA is charged with assuring that a state SIP complies with federal law. That power, however, is limited: [t]he Clean Air Act creates a partnership between the states and the federal government. The state proposes, though the EPA disposes. The federal government through the EPA determines the ends—the standards of air quality—but Congress has given the states the initiative and a broad responsibility regarding the means to achieve those ends through state implementation plans and timetables for compliance . . . . The Clean Air Act is an experiment in federalism, and the EPA may not run roughshod over the procedural prerogatives that the Act has reserved to the states . . . .

Texas v. EPA, 690 F.3d at 675 (quoting *Bethlehem Steel Corp. v. Gorsuch*, 742 F.2d 1028, 1036 (7th Cir. 1984) (internal citation omitted)). Indeed, this Court has held that EPA's disapproval of a state's weighing of the statutory factors in a Regional Haze SIP is subject to vacatur where EPA "improperly fail[s] to defer" to the state's analysis, as such "lack of deference to the state inverts the [federal] agency's 'ministerial function' in this system of 'cooperative federalism.'" *Texas*

v. EPA, 829 F.3d at 428 (citation omitted) (staying implementation of EPA's Regional Haze Federal Implementation Plan ("FIP") for Texas in part because challengers were likely to establish on the merits that EPA's failure to defer to "Texas's application of the statutory factors" was improper).

Here, EPA's SIP approval appropriately deferred to Louisiana's application of the statutory factors.

B. Louisiana reasonably considered and balanced the five BART factors.

EPA correctly recognized that Louisiana performed a reasonable balancing of the five BART factors in reaching its determination for Nelson Unit 6. Louisiana's narrative explanation of its analysis expressly discusses the five factors, explains the key aspects of its reasoning, and, as importantly, invokes the comprehensive analyses performed by EPA and Entergy.

Louisiana's SIP submittal explains that the state reviewed "a number of emission reduction controls" for Nelson Unit 6, including low-sulfur coal and a dry scrubber. June 2017 SIP Submittal, PDF pg. 6, Index #22, App.38. It then explains:

> [Louisiana] has weighed the five factors and after a review of both Entergy's and EPA's information has concluded that BART is the emission limit of 0.6 lbs/MMBtu based on at [sic] 30 day rolling average . . . . While additional visibility benefits may be available through the use of FGD [i.e. dry scrubber], the lower sulfur coal option results in visibility benefits at a lower

> annual cost. In addition, FGD use results in additional waste due to spent reagent and has some power demands to run the equipment. [Louisiana] believes, at present, that the use of lower sulfur coal presents the appropriate SO_2 control based on consideration of economics, energy impacts, non-air quality environmental impacts, and impacts to visibility.

Id. The SIP Submittal appends EPA's and Entergy's BART analyses, along with the other information the state considered in making its determination. *See* June 2017 SIP Submittal, Appendix D, F, Index #22, App.38. Both EPA's and Entergy's analyses include extensive discussion of the five factors. *See id.* For example, Entergy's BART analysis describes the existing emissions from Nelson Unit 6 based on its current operating configuration.[4] *Id.* at Appendix D at 3-2–3-4, Index #22, App.38. Entergy's analysis then addresses, for each of the potential controls, the cost of compliance, energy impacts, non-air quality environmental impacts, and the remaining useful life of the source. *Id.* at 4-1–4-6, Index #22, App.38.

This analysis provided ample support for Louisiana's determination. Entergy demonstrated switching to low-sulfur coal would cost approximately $600/ton of SO_2 reduced. By contrast, adding a dry scrubber would be

[4] Low-sulfur coal is not an existing control at Nelson Unit 6. *See* Br. at 42. The sulfur content of coal used at Unit 6 varies from shipment to shipment. Email from Bumpers to Stenger (Sept. 18, 2017), Index #36, App.43. *See also* EPA Br. at 45 ("Entergy has purchased both higher- and lower-sulfur coals during the baseline period.").

economically infeasible at more than $4,800/ton, while adding a wet scrubber would cost $4,700/ton. *Id.* at 4-3. Entergy's analysis demonstrated that adding a scrubber, at *$3 billion or more* per deciview of visibility improvement, would provide minimal visibility benefits at exorbitant costs. *Id.* at 4-6. Additionally, wet scrubbers have negative non-air quality environmental impacts that must be considered; they require increased water use and generate large volumes of wastewater and solid waste/sludge that must be managed or treated. *Id.* at 4-4.

The SIP, which expressly considered EPA's and Entergy's BART analyses, reflects the state's weighing of the BART factors.[5] Environmental Petitioners fundamentally disagree with *how* Louisiana weighed the factors in reaching its BART determination, arguing that greater weight should have been given to cost, specifically EPA's cost-effectiveness values, and to visibility improvement. *See* Br. at 34.[6] This policy disagreement cannot justify invalidating EPA's approval of

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[5] Environmental Petitioners' claim that Louisiana failed to consider four factors (existing controls, remaining useful life, cost-effectiveness, and visibility benefit of controls) is baseless. *See* Br. at 40-41. EPA's and Entergy's analyses addressed these factors in detail, and Louisiana explicitly "weighed the five factors . . . after a review of both Entergy's and EPA's information." June 2017 SIP Submittal, PDF pg. 6, Index #22, App.38. Environmental Petitioners simply disagree with the policy outcome resulting from Louisiana's exercise of discretion in weighing the factors.

[6] Environmental Petitioners' argument that low-sulfur coal fails to meet EPA's "presumptive" BART limits is a red herring. *See* Br. at 28. Environmental Petitioners ignore that the BART Guidelines authorize states *not* to adopt the presumptive limits if they "determine that an alternative control level is justified based on a careful consideration of the statutory factors." 40 C.F.R. pt. 51, App. Y

the determination. Nothing in the statute or BART Guidelines compels states to weigh the factors in a certain way or to reach the same conclusion that EPA might (or that certain litigants might prefer).

Environmental Petitioners seek to portray EPA's action as inconsistent with its past actions on BART, but the record refutes this claim. Low-sulfur coal's cost-effectiveness of $597/ton or $2,957/ton, based on Entergy and EPA's analyses, respectively, 82 Fed. Reg. at 32,298, Index #6, App.17, falls comfortably within the cost spectrum of EPA-approved and EPA-promulgated BART controls. *See* Br. at 36 (showing prior cost-effectiveness determinations ranging from under $1,000/ton to $5,000/ton).

Environmental Petitioners observe that a dry scrubber would fall within the cost range of EPA-approved BART, but that does not render EPA's approval of lower-cost controls arbitrary. Indeed, EPA has approved state *rejection* of controls costing below $2,706/ton—the EPA-estimated cost-effectiveness of a dry scrubber for Nelson, *see* 82 Fed. Reg. 32,298-99, Index #6, App.17—in favor of less expensive controls with smaller visibility benefits. *See, e.g.*, 77 Fed. Reg. 17,334, 17,339 (Mar. 26, 2012) (approving Nevada's determination that NOx BART for Fort Churchill Generating Station is low-NOx burners with flue gas recirculation); Nevada Dept. of Envtl. Prot., *Revised Nevada Division of Environmental*

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§ IV.E.4. Here, Louisiana considered the statutory factors and determined an alternative control level was justified, making the presumptive limit irrelevant.

Protection BART Determination Review of NV Energy's Fort Churchill Generating Station Units 1 and 2, at 5-7 (Oct. 15, 2009), EPA Docket No. EPA-R09-OAR-2011-0130-0004 (concluding BART at Fort Churchill is low-NOx burners with flue gas recirculation costing $716/ton and $1,070/ton for Units 1 and 2, respectively, instead of alternative controls costing $1,190–$2,102/ton, despite those costlier controls' capability of yielding visibility improvements).

That other states have selected BART controls with cost-effectiveness values similar to that of a dry scrubber for Nelson Unit 6 does not demonstrate that EPA acted arbitrarily. EPA approved those states' BART determinations because those states weighed the BART factors and reached a reasonable conclusion for the facilities at issue. Contrary to Environmental Petitioners' claims, the BART Guidelines do not *require* EPA to disapprove a state's BART determination merely because it appears to be inconsistent with that of other states. *See* Br. at 38. While the Guidelines provide that a reasonable cost-effectiveness range "would be a range that is consistent with the range of cost effectiveness values used in other similar permit decisions over a period of time," 40 C.F.R. pt. 51, App. Y § IV.D.4.f.,[7] that standard was met here. EPA can neither force states to weigh the

[7] Environmental Petitioners cite this provision to argue that a dry scrubber should have been BART for Nelson because it was within the ranges of cost-effectiveness *and* visibility improvement of BART determinations made by other states and EPA. Br. at 38-39. Their reliance on this provision for the appropriate range of

factors the same way, nor can it substitute its judgment for the state's.[8] *See supra* at 23-25. This means that EPA will rationally approve a wide range of state approaches. Nothing in EPA's action here contradicted or departed from previous EPA actions.

The Regional Haze Program does not order states to select the most effective or costliest controls as BART. Cost and visibility impact are only two of the five factors. *See* 42 U.S.C. § 7491(g)(2). EPA properly recognized that Louisiana appropriately balanced the factors to conclude that "the use of lower sulfur coal presents the appropriate SO_2 control based on consideration of economics, energy impacts, non-air quality environmental impacts, and impacts to visibility." 82 Fed. Reg. at 60,531, 60,533, 60,534, 60,535, Index #7, App.18.

C. EPA's criticisms of Entergy's BART analysis do not render EPA's approval unsupported.

Environmental Petitioners' argument that Louisiana relied only on Entergy's BART analysis is based on an incorrect characterization of Louisiana's analysis and is unsupported by the record. Br. at 29. They argue EPA's approval of the

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visibility improvement is misplaced, as the provision pertains only to reasonable ranges for cost-effectiveness values and does not address visibility improvement.

[8] EPA also cannot prohibit states from assessing costs using different metrics, including total cost or cost-per-deciview of visibility improvement achieved. Here, Louisiana determined low-sulfur coal produces visibility benefits at lower annual cost than other controls. *See* June 2017 SIP Submittal, PDF pg. 6, Index #22, App.38. Considering annual costs is appropriate given the statutory mandate to consider "the costs of compliance." 42 U.S.C. § 7491(g)(2).

BART determination is improper because EPA identified concerns with Entergy's analysis. *See id.*

Environmental Petitioners are incorrect about the basis for Louisiana's BART determination. EPA explicitly recognized in its proposed approval of the BART determination that "LDEQ incorporated our [EPA's] modeling, among other things, into the June 2017 SIP revision (Appendix F) and considered it along with the visibility analysis developed by Entergy. . . . LDEQ has weighed the statutory factors and after a review of *both Entergy's and EPA's information* has concluded that BART is the emission limit of 0.6 lbs/MMBtu based on a 30-day rolling average. . . ."[9] 82 Fed. Reg. at 32,299, 32,300 (emphasis added), Index #6, App.17. *See also* 82 Fed. Reg. at 60,530, Index #7, App.18. Environmental Petitioners' criticism of EPA's approval lacks any factual basis.

Moreover, Entergy's analysis provided a reasonable basis for Louisiana's BART determination for Nelson Unit 6, and EPA's critiques of some elements of that analysis do not render Entergy's analysis unreliable. EPA's analysis diverged from Entergy's on only two of the five BART factors: the cost-effectiveness of the candidate BART controls and the visibility improvements those controls would yield. *See* 82 Fed. Reg. at 32,298-99, Index #6, App.17. Entergy's cost analysis

[9] Although Louisiana included EPA's CAMx modeling in the SIP appendices, Louisiana relied only on EPA's CALPUFF modeling in making its BART determination. 82 Fed. Reg. at 60,525, Index #7, App.18.

contained sufficient detail to justify Louisiana's reliance on Entergy's cost estimates.

1. Entergy's cost analysis adequately supports Louisiana's BART determination for Nelson Unit 6.

Entergy's BART analysis included detailed information about control options' costs, providing Louisiana an adequate basis for its Nelson Unit 6 determination. Environmental Petitioners fault EPA for approving Louisiana's determination based partly on Entergy's cost-effectiveness estimates of $597/ton for low-sulfur coal and $4,536/ton for a dry scrubber, even though EPA estimated low-sulfur coal's cost-effectiveness to be much higher at $2,957/ton and a dry scrubber's to be much lower at $2,706/ton. Br. at 31. Environmental Petitioners urge that a dry scrubber should have been deemed BART, since it is, purportedly, more cost-effective based on EPA's analysis. *See id.* However, Louisiana

reasonably determined "low-sulfur coal achieves visibility benefits at a lower annual cost [than a scrubber]," after reviewing both Entergy's and EPA's information, *see* June 2017 SIP Submittal at PDF pg. 6, Index #22, App.38. Entergy's cost estimates were based on information *specific* to the application of controls to Nelson Unit 6, as compared to EPA's more generic cost estimates and flawed analysis of Entergy's past coal purchases.

Entergy's low-sulfur coal costs were based on information provided by its fuel-purchasing department—namely, that low-sulfur coal could be procured at a premium of $0.50/ton. Entergy FFA at 4-3, Index #21.70, App.35. For undisclosed reasons, EPA disputed Entergy's information about the premium it would have to pay its coal suppliers. *See* 82 Fed. Reg. at 32,298, Index #6, App.17. EPA conducted its own analysis to calculate the premium it expected Entergy would have to pay. *See id.* EPA examined fuel prices that Entergy paid in a single year—2016—to determine whether Entergy paid more than a $0.50/ton premium for lower-sulfur coal. *Id.* EPA took averages of the prices paid for coal it deemed "low-sulfur" and prices for coal it deemed "not low-sulfur" to support its determination that Entergy had paid a premium of $2.48/ton for low-sulfur coal in 2016. 82 Fed. Reg. at 32,298 n.32, Index #6, App.17. EPA then assumed Entergy would need to pay this $2.48 "premium" in the future and used it to calculate its own cost estimate for the low-sulfur coal option. *See id.*

EPA's conclusion about the premium *Entergy* would pay to *its suppliers* in the future for low-sulfur coal is baseless. EPA's own data show that the prices paid for coal varied widely during 2016 and had no clear correlation to sulfur content. *See* Nelson TSD at 41, Index #5.23, App.9 (recognizing prices paid for coal of varying sulfur contents in 2016 were "scattered"). EPA provides no evidence that coal costs were tied to the sulfur content of each delivery. To the contrary, sulfur content of delivered coal "can vary significantly" from shipment to shipment. Email from Bumpers to Stenger (Sept. 18, 2017), Index #36, App.43. Accordingly, EPA's attempt to determine the "premium" associated with past coal shipments is solely conjecture. In contrast, Entergy's estimate for low-sulfur coal represents the company's best information about the premium associated with purchasing low-sulfur coal for Nelson Unit 6.

Entergy also provided detailed information regarding costs of add-on control equipment at Nelson Unit 6, including a dry scrubber. While EPA disagreed with Entergy's inclusion of certain costs, including costs of escalation during construction and owners' costs, these are actual costs incurred during construction of controls. Entergy Aug. 14 Comments at 8, Index #69, App.45. Further, Entergy's capital, operating, and maintenance cost estimates took into account site-specific considerations and unit-specific operating data, *e.g.*, fuel characteristics, temperature data, and current emission rates. Sargent & Lundy ("S&L"), Nelson

Unit 6 SO_2 BART Control Technology Summary at 1 (attached to Entergy FFA), Index #21.70, App.35. Equipment costs for each technology's major components were developed based on recent costs provided by equipment vendors for similar projects. *Id.* Balance-of-plant costs for equipment tie-ins, ductwork, foundations, structural steel, piping, pumps, conduit, etc., and associated installation costs also were estimated based on pricing for similar projects. *Id.* Entergy's costs included line-item estimates for each element of a dry scrubber, including materials costs, man-hours, and labor costs. *See id.*

Entergy's 25% contingency factor was similarly based on site-specific considerations. *See* Entergy Aug. 14 Comments at 8, Index #69, App.45; *see also* S&L Dry FGD Cost Estimate at 12-13 (attached to Entergy FFA), Index #21.70, App.35. ("Contingency is included in the estimate to cover the uncertainty associated with the project costs. The cost estimate includes a recommended contingency of 25%, which is consistent with cost estimating guidelines for a conceptual design and the current level of project definition.").

In contrast to Entergy's analysis, EPA based its dry scrubber cost analysis on generic cost information that failed to account for factors specific to Nelson Unit 6. *See* Appendix F to LA SIP Approval (Nelson TSD at 27-30), Index #22.13, App.40. EPA used a planning model that employs one-size-fits-all algorithms, rather than site-specific vendor estimates, to calculate costs. *See id.* at 18-19.

Louisiana's consideration of Entergy's Nelson-specific cost estimates was not only reasonable, it also comports with the BART Guidelines, which call on states' cost analyses to account for "any site-specific design or other [enumerated] conditions . . . that affect the cost of a particular BART technology option." 40 C.F.R. pt. 51, App. Y § IV.D.4.a.5. Entergy provided this site-specific information on scrubbers, which was an appropriate consideration for Louisiana in making its BART determination for Nelson Unit 6.

In sum, Entergy's site-specific estimates for low-sulfur coal and a scrubber reflected the best information about the costs of implementing these controls at Nelson Unit 6. These calculations demonstrated that low-sulfur coal was the most economical SO_2 control, adequately supporting Louisiana's determination that "the lower sulfur coal option results in visibility benefits at a lower annual cost [than a scrubber]." June 2017 SIP Submittal at PDF pg. 6, Index #22, App.38.[11]

[11] Environmental Petitioners also note EPA's criticisms of Entergy's CAMx modeling. Br. at 30. That modeling did not assess the impact of controls on visibility improvements, *see* Entergy FFA, Table 4-5, Index #21.70, App.35, so these criticisms are irrelevant to Louisiana's BART determination.

III. EPA lawfully approved Louisiana's Long-Term Strategy.

Environmental Petitioners' "Long-Term Strategy" argument is a strategically rebranded challenge to Louisiana's long-ago decision to exclude Dolet Hills from the reasonable progress analysis. The CAA's strict limitations period precludes Environmental Petitioners from challenging in the present case EPA's 2012 approval of that decision. Having missed their opportunity in 2012, Environmental Petitioners now—*six years later*—attempt to rewind the clock by rewriting EPA's regulatory history. Specifically, they allege EPA's 2012 Rules required Louisiana in 2017 to (1) revise its Long-Term Strategy and reasonable progress analysis; and (2) reconsider its choice of reasonable progress sources.

The record belies Environmental Petitioners' tale. EPA in 2012 required only two discrete actions from Louisiana before the Agency would fully approve the State's Long-Term Strategy. First, EPA instructed Louisiana to ensure the State did not rely on CAIR to justify not adopting reasonable progress controls for Big Cajun II. Second, EPA instructed Louisiana to reevaluate BART for four non-EGU facilities. EPA did *not* direct Louisiana to redo its Long-Term Strategy and associated reasonable progress analysis, or to redo its selection of reasonable progress sources, all of which EPA approved in 2012 with the above-noted narrow exceptions. If Environmental Petitioners believed EPA should have required Louisiana to do more, they should have argued for that in 2012. They are time-barred from doing so now.

Regardless, Environmental Petitioners' claim is meritless for the same underlying reason. Environmental Petitioners claim EPA's ultimate SIP approval was arbitrary because Louisiana did not complete a new Long-Term Strategy or reasonable progress analysis, or reconsider Louisiana's selection of reasonable progress sources. These allegations, however, are baseless because EPA did not require Louisiana to do these things. Instead, EPA only required Louisiana to address the CAIR concern and four non-EGU BART determinations, which the state did in its 2016 and 2017 SIP revisions. Thus, EPA lawfully approved these revisions.

Finally, Environmental Petitioners' argument that EPA violated notice-and-comment requirements by presenting a new rationale in the 2017 Final Rule approving Louisiana's SIP that did not appear in the May 19, 2017 Proposed Rule rests on the same meritless allegations as their other arguments. EPA provided no "new rationale" in the 2017 Final Rule, but simply explained its 2012 reasoning in greater detail in responding to Environmental Petitioners' comments.

A. Environmental Petitioners' belated challenge to EPA's 2012 approval of Louisiana's Long-Term Strategy and selection of reasonable progress sources is time-barred.

Before reaching a claim's merits, courts must decide whether the claim is timely. *Sierra Club de Puerto Rico v. EPA*, 815 F.3d 22, 26 (D.C. Cir. 2016). A challenge to an EPA action on a SIP must "be filed within sixty days from the date notice" of the action appears in the *Federal Register*. 42 U.S.C. § 7607(b)(1). Absent exceptions not invoked (and not applicable) here, missing this deadline results in foreclosure of judicial review. *Sierra Club de Puerto Rico*, 815 F.3d at 26.

Environmental Petitioners base their claim that EPA arbitrarily approved Louisiana's Long-Term Strategy and selection of reasonable progress sources on arguments that the Act required to be advanced, if at all, in 2012. Then, and only then, Environmental Petitioners could have lawfully filed a broad challenge to EPA's approval of Louisiana's Long-Term Strategy and separately contested its

selection of reasonable progress sources. Environmental Petitioners attempt to circumvent the time-bar by recharacterizing the scope of SIP revisions EPA required in 2012. This attempt fails; section 7607(b)(1) applies to their untimely claim.

1. EPA's 2012 Rules preclude Environmental Petitioners' untimely challenges to EPA's approval of Louisiana's Long-Term Strategy and choice of reasonable progress sources.

EPA reviews SIPs for completeness and compliance. 42 U.S.C. § 7410(k)(1)(B), (k)(3). In determining whether a SIP satisfies the CAA, EPA may approve or disapprove a SIP in whole or part. *Id.* § 7410(k)(3). Based on this statutory authority and in accordance with longstanding guidance, EPA also may issue limited approvals and disapprovals of SIPs in whole or part. *See* Memorandum from John Calcagni, Director, Air Quality Management Division, Office of Air Quality Planning & Standards, to Air Division Directors, EPA Regional Offices I-X, July 9, 1992 ("Calcagni Memo"), located at http://www.epa.gov/sites/production/files/2015-07/documents/procsip.pdf at 2-4. The legal effect of each option varies.

EPA issues partial approvals "where a separable portion of a SIP submittal meets all of the applicable requirements" of the Act. *Id.* at 2. "By separable, EPA means that the action it anticipates taking will not result in the approved rule(s) being more stringent than the State anticipated." *Id.* (citation omitted). EPA issues

limited approvals where "certain [SIP] provisions . . . meet the applicable requirements of the Act," but "other provisions . . . do not meet the requirements, and the provisions are not separable." *Id.* In a limited approval, "although portions of a rule prevent EPA from finding that the rule meets a certain requirement of the Act, EPA believes that the rule, as a whole, strengthens the SIP." *Id.* at 3. EPA therefore "approves the entire rule—even those portions that prohibit full approval." *Id.* The contents of the SIP that are approved become immediately enforceable. *Id.*

Where EPA issues a limited disapproval of a SIP, "[t]he disapproval only applies to whether the submittal meets a specific requirement of the [CAA] and does not affect incorporation of the rule into the approved, federally enforceable SIP." *Id.* at 3. Thus, "[t]he rule remains a part of the SIP . . . under the limited disapproval[] because the rule strengthens the SIP." *Id.* When issuing a limited approval or disapproval, EPA "identif[ies] which requirements have not been met and what action would be required on the part of the State to meet those requirements." *See id.* at 4.

In 2012, EPA finalized two rules requiring Louisiana to revise its 2008 SIP submittal. Through the 2012 National Rule, EPA issued a ***limited disapproval*** of Louisiana's 2008 SIP "insofar as [it] rel[ied] on . . . CAIR to address the impact of emissions from the State's [EGUs]." 77 Fed. Reg. at 39,426; 77 Fed. Reg. at

33,657 (stating "EPA has given limited disapproval to the [SIP] provisions addressing" specific requirements of the Long-Term Strategy and BART determinations). Accordingly, the only part of Louisiana's Long-Term Strategy that was disapproved (and thus needed to be corrected) was the part that relied "on CAIR as an alternative to BART for [SO_2] and/or [NO_x] for [EGUs] subject to BART requirements," including EGUs Louisiana had identified as potentially subject to reasonable progress controls in its Long-Term Strategy. 77 Fed. Reg. at 33,643 (defining the scope of what "[t]his action affects"); Calcagni Memo at 3 ("limited disapproval . . . only applies to whether the submittal meets a *specific requirement*") (emphasis added). Notably, the disapproved portion of the Long-Term Strategy *did not* include Louisiana's exclusion of Dolet Hills from the reasonable progress analysis.

In the 2012 National Rule, EPA stated it would "act on the remaining elements of the SIP for each state in a separate notice." 77 Fed. Reg. at 33,653. In the 2012 Regional Rule, EPA did just that, finalizing a ***partial limited approval and a partial disapproval*** of Louisiana's 2008 SIP. 77 Fed. Reg. at 39,425. EPA issued a partial disapproval only "insofar as this SIP revision relie[d] on deficient BART evaluations for four" non-EGU, "subject-to-BART sources," confirming that once these deficiencies (and Louisiana's reliance on CAIR as a BART alternative for EGUs) were corrected, the SIP would be approved. *Id.* at 39,426.

EPA unequivocally stated it "finaliz[ed] a partial limited approval of those elements of this SIP revision not addressed by our partial disapproval." *Id.* at 39,425.

These actions make clear that between the 2012 National Rule and 2012 Regional Rule, EPA did not broadly disapprove the SIP's Long-Term Strategy or reasonable progress analyses. EPA also did not disapprove or even call into question Louisiana's decision not to require reasonable progress controls at Dolet Hills. Louisiana's 2008 decision to exclude Dolet Hills from the reasonable progress analysis was therefore approved (without challenge) in the final EPA action in 2012 because that decision was encompassed by EPA's "partial limited approval of those elements of this SIP revision not addressed by [the] partial disapproval." *Id.* This history refutes Environmental Petitioners' allegations that EPA "[i]nvented" a position "flatly inconsistent" with the 2012 Rules. Br. at 51-52. Six years ago, EPA squarely resolved the aspects of Louisiana's Long-Term Strategy and reasonable progress analysis that Environmental Petitioners challenge. Accordingly, their 2018 claim that Louisiana must redo its Long-Term Strategy and reasonable progress analysis with respect to Dolet Hills is time-barred.

2. The record refutes Environmental Petitioners' counternarrative.

Attempting to skirt the CAA's preclusion of their claim, Environmental Petitioners take a revisionist approach to the regulatory history. Specifically, Environmental Petitioners argue that EPA failed to adhere to its own directive by approving a SIP that did not consider reasonable progress controls for Dolet Hills. *See generally* Br. at 48-57. Environmental Petitioners' argument rests on a mischaracterization of EPA's 2012 Rules. The Court should reject their efforts to rewrite history and affirm EPA's SIP approval.

Environmental Petitioners claim that, in 2012, EPA required Louisiana to complete a reasonable progress analysis for EGUs in addition to Big Cajun II, including Dolet Hills. *Id.* at 53-54. They rely on a single, excerpted statement from EPA's response to a comment in the 2012 Regional Rule. In that response, EPA said Louisiana would have to "consider whether EGUs previously covered by the CAIR, whether subject to BART or not, should be controlled to ensure reasonable progress to meet the State's long-term strategies." 77 Fed. Reg. at 39,427. But the 2012 National Rule explains that its concern was with states that relied "on CAIR ***as an alternative to BART***" for EGUs that are subject to BART. 77 Fed. Reg. at 33,643 (footnote omitted). The 2012 National Rule thus clarifies what EPA meant in its response to the comment in the 2012 Regional Rule: EPA tasked states with re-examining sources that relied on CAIR as an alternative for

BART, including sources identified as candidates for potential reasonable progress controls.

Environmental Petitioners' argument therefore fails for two significant reasons. First, Dolet Hills is not subject to BART, *see* Appendix E to 2008 SIP, Index #9, App.19, meaning it was not included within the scope of EPA's instructions to states in the National Rule. Petitioners' attempt to overread a response to a comment to conflict with the National Rule's clear direction should be rejected.

Second, even if Environmental Petitioners were correct that EPA required Louisiana to address CAIR reliance for all reasonable progress sources, regardless of whether they were subject to BART, Louisiana had *not* selected Dolet Hills as a reasonable progress source. Because Dolet Hills was not chosen as a reasonable progress source, it could not have fallen within the scope of EPA's directive to Louisiana to reconsider SIP findings due to CAIR's invalidation.

In sum, the record demonstrates that EPA did not generally disapprove Louisiana's selection of reasonable progress sources, much less specifically disapprove its choice to exclude Dolet Hills from that category of sources. Louisiana's decisions on these issues were therefore settled when EPA issued its partial limited approval in 2012. Accepting Environmental Petitioners' belated arguments "would make a mockery of Congress' careful effort to force potential

litigants to bring challenges to a rule issued under [the CAA] at the outset." *Am. Rd. & Transp. Builders Ass'n v. EPA*, 705 F.3d 453, 458 (D.C. Cir. 2013) (quotation marks and citation omitted).[12]

B. EPA's approval of Louisiana's SIP revision was reasonable.

Even if Environmental Petitioners' challenge were not time-barred, it would fail on the merits. The claim that EPA's approval of Louisiana's Long-Term Strategy was arbitrary is predicated on the mistaken belief that EPA required Louisiana to go beyond correcting the discrete items identified in the 2012 Rules. Because Louisiana did exactly what EPA instructed, EPA reasonably approved Louisiana's SIP revisions.

EPA acted consistently with the 2012 Rules when approving Louisiana's SIP and therefore did not violate the Administrative Procedure Act. The 2012 Rules instructed Louisiana to (1) address any reliance "on CAIR as an alternative to BART for SO_2 and NO_X for subject EGUs," 77 Fed. Reg. at 33,645, and (2) correct BART determination deficiencies for four non-EGUs. 77 Fed. Reg. at 39,426. In its 2016 and 2017 SIP revisions, Louisiana squarely addressed both issues, thus satisfying EPA's demands. *See* August 2016 SIP Revision at II(A)-(D), Index #14, App.22; February 2017 SIP Revision at II(A)-(D), Index #21, App.24. EPA therefore reasonably and lawfully approved these revisions. 82 Fed.

[12] No exceptions to the CAA's time-bar provision apply to Environmental Petitioners' challenge. *See* EPA Br. at 58-60.

Reg. at 60,521-22, Index #7, App.18 (approving BART determinations for four non-EGUs); *id.* at 60,523 (indicating outstanding reasonable progress control requirements were satisfied for Big Cajun II).

Environmental Petitioners contend the 2012 directive encompassed both BART-eligible and non-BART-eligible EGUs that had previously relied on CAIR. But even if that were true, Louisiana was not required to reconsider its earlier decision not to designate Dolet Hills as a reasonable progress source. Due to existing consent decrees for other sources, Louisiana's *only* reasonable progress sources that relied on CAIR were Big Cajun II's units. *See* 2008 SIP, Appendix H, Index #12, App.21. Accordingly, because Louisiana's SIP revisions with respect to the reasonable progress analysis addressed CAIR reliance by all relevant EGUs (*i.e.*, Big Cajun II), EPA's approval of these revisions was reasonable, easily discernible, and should be upheld.[13] *Bowman Transp., Inc. v. Arkansas-Best Freight Sys., Inc.*, 419 U.S. 281, 285–86 (1974) (Courts "will uphold a decision of

[13] Environmental Petitioners incorrectly claim EPA departed from its past practice by not requiring a reasonable progress analysis as a precondition of its 2017 approval of Louisiana's SIP revisions. Br. at 50-51. EPA did no such thing. Louisiana completed the allegedly missing reasonable progress analysis in 2008, and EPA approved that analysis in its partial limited approval in 2012. *See* 2008 SIP, Chapter 10, Index #9, App.19; 77 Fed. Reg. at 39,426 ("This partial limited approval results in approval of all of the remaining elements of Louisiana's RH SIP.") (footnote omitted). EPA's approach is perfectly consistent with past rulemakings in which EPA faithfully enforced the Act's requirement that states perform reasonable progress analyses that apply the statutory factors.

less than ideal clarity if the agency's path may reasonably be discerned.") (citations omitted).

C. EPA satisfied notice-and-comment requirements.

Environmental Petitioners' final argument is that EPA relied on a new rationale that constituted a "major legal interpretation" in its approval of Louisiana's SIP revisions, and that therefore EPA was required to engage in an additional round of notice and comment. This argument fails because EPA did not provide a new rationale and, independently, the May 19, 2017 Proposed Rule fairly apprised the public that the 2012 partial approval would be incorporated into the Final Rule. The Court should therefore reject Environmental Petitioners' claim and uphold EPA's approval of Louisiana's SIP.

1. EPA provided no new rationale.

As detailed above, the 2012 Rules provided that EPA would approve Louisiana's SIP if the state (1) addressed CAIR reliance, and (2) amended BART determinations for four non-EGUs. The May 19, 2017 Proposed Rule acknowledged this, referencing the 2012 Rules. *See* 82 Fed. Reg. at 22,938, Index #4, App.2. After Louisiana addressed these two issues, EPA adhered to its previous statements and approved Louisiana's revised SIP. Nothing about this logical progression suggests that last step relied on a new rationale. While the Final Rule necessarily contained EPA's "interpretation" of its own words in the

2012 rulemaking, Environmental Petitioners identify no authority holding that this should constitute a "major legal interpretation." Indeed, agencies are afforded great latitude when explaining their actions, including filling in gaps where they exist. *See Bowman Transp., Inc.*, 419 U.S. at 285–86 (1974); *Util. Air Regulatory Grp. v. EPA*, 885 F.3d 714, 719 (D.C. Cir. 2018) ("We see no need to remand on this point for EPA to move this bit of post-hoc rationalization into a rulemaking record."). Consequently, no basis exists for a notice-and-comment challenge.

2. The 2017 Proposed Rule "fairly apprised" the public that the 2012 partial approval would be incorporated into the Final Rule.

Environmental Petitioners' contention that EPA did not comply with notice-and-comment requirements lacks merit. Br. at 56-57. As a threshold matter, Environmental Petitioners' argument fails because they have not alleged they *were* prejudiced by EPA's alleged failure, let alone *how* they were prejudiced, or identified new information they would have submitted if given the opportunity. *Texas Office of Pub. Util. Counsel v. FCC*, 265 F.3d 313, 326 (5th Cir. 2001) (stating that a party claiming an agency has violated notice-and-comment requirements "must show how they were prejudiced" and "how they would have responded had they been given the opportunity to submit additional responses") (citation omitted); *State of Tex. v. Lyng*, 868 F.2d 795, 800 (5th Cir. 1989).

Regardless, EPA provided sufficient notice and a full opportunity to comment because the May 19, 2017 Proposed Rule "fairly apprise[d] interested

persons" that EPA's Final Rule would incorporate its partial limited approval from 2012, including its approval of the Long-Term Strategy. *United Steelworkers v. Schuylkill Metals Corp.*, 828 F.2d 314, 317 (5th Cir. 1987) (quoting *Am. Transfer & Storage Co. v. ICC*, 719 F.2d 1283, 1303 (5th Cir. 1983). In the May 19, 2017 Proposed Rule, EPA stated: "Once we take final action on our proposed approval of Louisiana's 2016 SIP revision addressing non-EGU BART, this proposal, and a future proposed action to address SO_2 and [particulate matter] BART for the Entergy Nelson facility, *we will have fulfilled all outstanding obligations with respect to the Louisiana regional haze program for the first planning period*." 82 Fed. Reg. at 22,948 (emphasis added) (citation omitted), Index #4, App.2; *see id.* at 22,938 (referencing and explaining the 2012 Rules). Thus, EPA provided sufficient notice to interested persons, including Environmental Petitioners, that it would not revisit Louisiana's Long-Term Strategy because that "outstanding obligation" was already fulfilled.[14] 82 Fed. Reg. at 22,948, Index #4, App.2.

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[14] The May 19, 2017 Proposed Rule revisited controls for Big Cajun II, as directed by the 2012 Regional Rule. EPA highlighted that Louisiana Generating (the owner and operator of Big Cajun II) entered into a consent decree with EPA in 2013, requiring it to adhere to maximum daily emissions limits and new control requirements. 82 Fed. Reg. at 22,942, Index #4, App.2. EPA consequently proposed to approve Louisiana's determination that Big Cajun II "contributes less than 0.5 dv at all impacted Class I areas," noting that if it "finalize[d] its proposed approval of this portion of the SIP submittal, the control requirements and emission limits [would] become permanent and federally enforceable . . . ." *Id.* The May 19, 2017 Proposed Rule thus fulfilled EPA's "outstanding obligation" to approve Louisiana's revisited analysis for controls at Big Cajun II. *Id.* at 22,948.

CONCLUSION

For the foregoing reasons, this Court should dismiss Environmental Petitioners' petition for review insofar as it presents a time-barred challenge to EPA's approval of Louisiana's Long-Term Strategy, and in all other respects should deny their petition.

DATED: December 18, 2018

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that all counsel of record who have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system on this 18th day of December, 2018.

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CERTIFICATE OF COMPLIANCE

The undersigned counsel states that this brief complies with this Court's June 4, 2018 order because it contains 8,726 words, excluding the caption and signature blocks, as counted by a word processing system and, therefore, is within the 9,000-word limit. This motion also complies with typeface requirements of Fed. R. App. P. 27(d)(1)(E) because it has been prepared in a proportionally spaced typeface in 14-point Times New Roman font.

Dated: December 18, 2018

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CASE NO. 18-60116

IN THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

SIERRA CLUB; NATIONAL PARKS CONSERVATION ASSOCIATION; ENTERGY LOUISIANA, LLC,

Petitioners

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY; ANDREW WHEELER, Acting Administrator, United States Environmental Protection Agency,

Respondents.

On Petition for Review of Final Action of the
United States Environmental Protection Agency

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DATED: October 2, 2018

CERTIFICATE OF INTERESTED PERSONS

The following listed persons and entities as described in the fourth sentence of Fifth Circuit Rule 28.2.1 may have an interest in the outcome of this case. These representations are made in order that the judges of this Court may evaluate possible disqualification or recusal. With respect to Petitioners/Respondent-Intervenors, the United States Environmental Protection Agency adopts the representations made in those Parties' opening briefs:

1. Petitioners and Respondent-Intervenors:

   a. *Sierra Club and National Parks Conservation Association*: Sierra Club and National Parks Conservation Association are non-profit organizations that maintain an open membership invitation to organizations, businesses, individuals, and the public general. Accordingly, their memberships consist of many individual members. Neither Sierra Club nor National Parks Conservation Association has parent companies, and no publicly held company owns a 10% or greater interest in Sierra Club or National Parks Conservation Association.

   b. *Counsel for Sierra Club and National Parks Conservation Association*: Charles McPhedran (Earthjustice); Matthew Gerhart; Joshua Smith (Sierra Club)

   c. *Entergy Louisiana, LLC.,*: including Entergy Services, Inc.; Entergy Holding Company, LLC (parent company of Petitioner Entergy Louisiana, LLC); Entergy Corporation (parent company of Entergy Utility Holding Company, LLC)

   d. *Cleco Power, LLC*: including Cleco Corporate Holdings LLC (parent company of Cleco Power, LLC); Cleco Group LLC (holder of all outstanding equity of Cleco Corporate Holdings, LLC); Cleco Partners L.P. (parent company of Cleco Group, LLC);

e. *Counsel for Entergy Louisiana, LLC and Cleco Power, LLC*: Debra J. Jezouit, William M. Bumpers, and Allison Watkins Mallick (Baker Botts, LLP); Kelly M. McQueen (Entergy Services, Inc.); Megan Heuberger Berge (Baker Botts, LLP)

2. Respondents:

a. *United States Environmental Protection Agency; Andrew J. Wheeler, Acting Administrator of the United States Environmental Protection Agency (collectively "EPA")*

b. *Counsel for EPA*: Michele L. Walter and Sheila Baynes (United States Department of Justice, Environment & Natural Resources Division, Environmental Defense Section); Nora Greenglass and Daniel Schramm (EPA Office of General Counsel); Adaobi Nwankwo (EPA Office of Regional Counsel, Region 6)

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STATEMENT REGARDING ORAL ARGUMENT

Respondents the United States Environmental Protection Agency, *et al.* ("EPA") respectfully request 20 minutes each for: (1) Petitioners Entergy Louisiana, LLC and Intervenor-Petitioner Cleco Power LLC ("Industry Petitioners"); and (2) Sierra Club and National Parks Conservation Association ("Environmental Petitioners"). EPA also requests 20 minutes to respond to Industry Petitioners and 20 minutes to respond to Environmental Petitioners, for a total of 40 minutes. EPA will have two counsel from the United States Department of Justice handling the arguments: one handling the Environmental Petitioners' arguments and one handling the Industry Petitioners' arguments. Oral argument will assist in the fair consideration of the complicated legal issues, the highly technical facts, the variety of issues presented by each Petitioner, and the voluminous administrative record, and will allow the parties to fully address the Court's questions.

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GLOSSARY

Act	Clean Air Act
Agency	United States Environmental Protection Agency
BART	Best Available Retrofit Technology
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CENRAP	Central Regional Air Planning Association
EGU	Electric Generating Unit
EPA	United States Environmental Protection Agency
FIP	Federal Implementation Plan
NO_x	Nitrogen oxide
NO_2	Nitrogen
PM	Particulate matter
SIP	State Implementation Plan
SO_2	Sulfur dioxide
UNC	University of North Carolina

JURISDICTIONAL STATEMENT

Respondents, the United States Environmental Protection Agency and Andrew J. Wheeler, Acting Administrator of the United States Environmental Protection Agency (collectively, "EPA" or "Agency") concur that, under 42 U.S.C. § 7607(b)(1), the Court has subject matter jurisdiction over challenges to the EPA final action entitled "*Approval and Promulgation of Implementation Plans; Louisiana; Regional Haze State Implementation Plan*," 82 Fed. Reg. 60,520 (Dec. 21, 2017) ("Final Rule"), Index #7, App675-698.[1] Petitioners, however, have waived certain arguments that were not raised in comments on the proposed action. Environmental Petitioners have also waived objections to EPA's approval of Louisiana's reasonable progress analysis and long-term strategy that EPA addressed in response to an administrative reconsideration petition that they did not challenge.

ISSUES PRESENTED

The "regional haze" program under Section 169A of the Clean Air Act ("Act" or "CAA") requires EPA and the States, working in a cooperative-federalist

[1] EPA will cite to documents contained in its Certified Index to Administrative Record as "Index #__, AppXX." Under 5th Cir. R. 30.2(a), a separate appendix of these materials will be filed. Also, under Federal Rule of Appellate Procedure 28(f), all statutes, rules, and regulations on which EPA relies that have not been provided in Petitioners' addenda are attached hereto in EPA's addendum.

partnership, to protect visibility in certain national parks and wilderness areas. CAA Section 110 requires the States to submit State Implementation Plans ("SIPs") to EPA for approval, and further requires EPA to approve SIPs if they "meet[] all of the applicable requirements" of the Act. 42 U.S.C. § 7410(k)(3). Section 169A requires SIPs to include, among other things, "such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress" toward meeting national visibility goals. *Id.* § 7491(b)(2). Such measures include, but are not limited to: (1) the requirement that certain sources install the "best available retrofit technology," or "BART," as determined based on specific statutory factors, *id.* § 7491(b)(2)(A), (g)(2); and (2) "a long-term . . . strategy for making reasonable progress," *id.* § 7491(b)(2)(B). With respect to BART, States must determine what is the appropriate retrofit technology, if any, for all major stationary sources that are both: (1) "BART-eligible" because they were constructed or reconstructed between 1962 and 1977; and (2) "subject to BART" because they "emit[] any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any [Class I] area." *Id.* § 7491(b)(2)(A).

Given these statutory requirements,

1. Did EPA reasonably approve Louisiana's determination that low sulfur coal is BART for the Roy S. Nelson Power Plant ("Nelson") where the SIP

submission as a whole contained information on all five statutory factors and the State considered that information in making its determination?

2. As to Sierra Club and the National Parks Conservation Association's ("NPCA") (collectively "Environmental Petitioners") challenge to EPA's 2012 decision approving Louisiana's selection in its SIP of reasonable progress sources and conclusion that only one source, known as "Big Cajun II," needed to be assessed for potential additional controls,

a. did Environmental Petitioners waive their challenge by seeking administrative reconsideration and failing to petition for review of EPA's denial of their petition;

b. is Environmental Petitioners' challenge a collateral attack on EPA's 2012 decision and thus filed outside the time limits for judicial review provided in 42 U.S.C. § 7607(b)(1); and

c. did EPA reasonably approve Louisiana's long-term strategy, where the State's revisions adequately addressed the deficiencies identified in previous EPA actions?

3. Did EPA reasonably approve Louisiana's conclusion that two facilities (Nelson and the Brame Energy Center ("Brame")) owned, respectively, by Petitioner Entergy Louisiana, LLC ("Entergy") and Petitioner-Intervenor Cleco Power LLC ("Cleco") (collectively "Industry Petitioners"), were "subject to

BART" based on modeling results showing that those two facilities contribute to visibility impairment at Class I areas?

4. Where the Act directs EPA to consider the SIP submittal "as a whole," and nothing in the Act precludes EPA from considering its own information in acting on SIPs, should the Court uphold EPA's Final Rule in part on the basis of additional modeling that corrected deficiencies in Industry Petitioners' modeling and provided additional support for concluding that the Nelson and Brame facilities are "subject to BART"?

STATEMENT OF THE CASE

Congress intended that federal and State governments share responsibility under the CAA for preventing and reducing regional haze in certain national parks and wilderness areas. States are required to submit SIPs that address the applicable CAA requirements, and EPA must approve them if it concludes that the SIPs meet these requirements. Over several years, Louisiana—with the input of stakeholders including EPA, environmental groups, and industry—submitted to EPA for approval a series of SIP revisions to address regional haze requirements.

In the action challenged here, EPA issued its final approval of those revisions that remained outstanding. Environmental Petitioners and Industry Petitioners now bring a myriad of legal and technical challenges focusing on only a few aspects of EPA's approval. Environmental Petitioners challenge the

reasonableness of EPA's approval of Louisiana's BART determination and corresponding emission limitation for a single source—Nelson, as well as one particular aspect of Louisiana's reasonable progress analysis and long-term strategy. Industry Petitioners attack various modeling results supporting the State's conclusion that the Nelson and Brame units should be "subject-to-BART," although they do not challenge EPA's approval of the ultimate BART determinations, *i.e.* emission limitations, for these units. Essentially, Environmental Petitioners argue that the State's SIP did not go far enough to address regional haze, while Industry Petitioners argue that the State went too far. Neither Petitioner, however, establishes that Louisiana's SIP failed to meet the relevant requirements of the Act, or that EPA's approval of the State's SIP was unlawful or otherwise arbitrary and capricious. The Court therefore should deny both petitions.

I. STATUTORY AND REGULATORY BACKGROUND

In 1977, "[i]n response to a growing awareness that visibility was rapidly deteriorating in many places . . . set aside for special protection in their natural states," Congress enacted Section 169A of the Clean Air Act, 42 U.S.C. § 7491 *et seq.*; *Chevron U.S.A., Inc. v. EPA*, 658 F.2d 271, 272 (5th Cir. 1981). The Act declared as a national goal "the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas [including

certain national parks, wilderness areas, and memorial parks] which impairment results from manmade air pollution."[2] 42 U.S.C. § 7491(a)(1). The "class I Federal areas" protected by the Act's visibility program include certain national parks and wilderness areas. *Id.* § 7472(a).

Congress refined the visibility program through the 1990 Amendments to the Act by adding Section 169B, 42 U.S.C. § 7492, to focus attention on regional haze—a form of visibility impairment that is caused by emissions from multiple sources and activities located across a broad geographic area. *See* 77 Fed. Reg. 42,834, 42,837 (July 20, 2012). Regional haze results from emission of fine particles and their precursors, including, of relevance here, sulfur dioxide ("SO_2") and oxides of nitrogen ("NO_X"). 82 Fed. Reg. at 60,520; 40 C.F.R. § 51.301.[3]

Like many other sections of the Act, the visibility program is administered through a system of shared federal and State responsibility. *See Gen. Motors Corp. v. United States*, 496 U.S. 530, 532 (1990). Generally, EPA establishes requirements for States' efforts to address visibility impairment consistent with the

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[2] "Impairment of visibility" means "reduction in visual range and atmospheric discoloration." *Id.* § 7491(g)(6).

[3] Fine-particle precursors react in the atmosphere to form "particulate matter" less than 2.5 micrometers in diameter ("$PM_{2.5}$") which impairs visibility by scattering and absorbing light. *See* 82 Fed. Reg. at 60,520-21.

Act, States prepare SIPs to satisfy those requirements in the first instance, and then EPA reviews proposed SIPs or SIP revisions and must "approve such submittal as a whole if it meets all of the applicable requirements of [the Act]." 42 U.S.C. § 7410(k)(3).[4]

The Act directed EPA to promulgate regulations requiring that SIPs include "such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress" toward the national visibility goal in Section 169A. 42 U.S.C. § 7491(b)(2). The regulations must include both a requirement that certain existing sources install "best available retrofit technology" or "BART" to control visibility impairing emissions and a requirement that States adopt a long-term strategy for making "reasonable progress." *Id.* § 7491(b)(2)(A)–(B).

Pursuant to that directive, EPA promulgated the Regional Haze Rule in 1999, 64 Fed. Reg. 35,714 (July 1, 1999), which is applicable to all States, including Louisiana. 40 C.F.R. § 51.300(b). In 2005 EPA revised the Regional Haze Rule and simultaneously issued guidelines to the States that, among other things, prescribe the process for determining BART emission limitations

[4] If EPA disapproves a submission in whole or in part, it must promulgate a Federal Implementation Plan ("FIP") to take the place of, or fill the gaps in, the deficient SIP within two years of such disapproval unless the State corrects the deficiency and EPA approves the revised SIP. *Id.* § 7410(c).

applicable to fossil-fuel fired power plants with generating capacities of greater than 750 megawatts. 42 U.S.C. § 7491(b)(1)–(2); *see* 70 Fed. Reg. 39,104, 39,156–72 (July 6, 2005) ("BART Guidelines"). The Regional Haze Rule sets out several requirements for each regional haze SIP. In broad terms, SIPs must include emissions limits reflecting BART for all sources that meet certain statutory criteria, "reasonable progress goals" that reflect an analysis of reasonable progress toward natural visibility conditions, and a "long-term strategy" for achieving reasonable progress. 40 C.F.R. §§ 51.308(d)(1), (d)(3), (e). As part of the long-term strategy requirement, sources not required to install BART may nonetheless be required to install emission controls to fulfill the overall "reasonable progress" directive (commonly referred to as "reasonable progress sources"). *See id.* § 51.308(d)(3).

A. Emission Limits for BART Sources.

BART emission limits—limits based on the reduction achievable through the installation of BART for each pollutant emitted by a source, 40 C.F.R. § 51.301—are required for sources that meet certain criteria. *Id.* § 51.308(e); *see also* 42 U.S.C. § 7491(b)(2)(A). The BART requirement does not command a source to use any particular technology. Rather, a State chooses the retrofit technology or operational measure that constitute BART for a given source, and requires the source to comply with an emission limitation corresponding to its BART determination.

The process for selecting BART emission limits has three steps. First, the SIP must identify sources that meet the regulatory definition of "BART-eligible source" (which includes certain stationary facilities that existed before August 7, 1977).[5] *See* 40 C.F.R. § 51.301.

Second, States must determine which BART-eligible sources "emit[] any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility" in a Class I area and, thus, are "subject to BART." *Id.* § 51.308(e)(1)(ii); 42 U.S.C. § 7491(b)(2)(A). Visibility impairment is measured in "deciviews."[6] According to the BART Guidelines, States should consider a 1.0 deciview change or more from an individual source to "cause" visibility impairment and a change of 0.5 deciviews to "contribute" to impairment. 70 Fed. Reg. at 39,120. States may select a lower "contribution" threshold based on their specific circumstances. 40 C.F.R. Pt. 51, App. Y, III.A.1.

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[5] BART-eligible sources are those that were in existence on August 1, 1977, but were not in operation prior to August 7, 1962; have the potential to emit 250 tons per year or more of any visibility-impairing air pollutant; and fall within one or more of twenty-six specifically listed source categories. *See* 40 C.F.R. § 51.301 (defining "BART-eligible source" and "[e]xisting stationary facility").

[6] A "deciview" is a measure of visibility impairment. 40 C.F.R. § 51.301. Pristine conditions would have a deciview value of zero, and deciview value increases as visibility degrades. Each change of 1.0 deciview represents a perceptible change in visual air quality to the average person. 62 Fed. Reg. 41,138, 41,145 (July 31, 1997).

The BART Guidelines give States discretion in analyzing which they determine which sources are "subject-to-BART." States may make a collective determination that *all* BART-eligible sources in the State are "subject to BART." *Id.* App Y, III. Alternatively, States may analyze individual sources using dispersion modeling or use other appropriate approaches to determine whether specific sources should be exempt from BART. *Id.*

Third, the SIP must include a "BART determination" to identify the appropriate type and level of control for each source found to be subject to BART, taking five statutory factors into consideration: (1) costs of compliance; (2) energy and non-air quality environmental impacts of compliance; (3) existing pollution control technology in use at the source; (4) the remaining useful life of the source; and (5) the degree of visibility improvement reasonably anticipated to result from the use of controls. 70 Fed. Reg. at 39,107; *see also* 42 U.S.C. § 7491(g)(2); 40 C.F.R. § 51.308(e)(1)(ii)(A); *Util. Air Regulatory Grp. v. EPA*, 471 F.3d 1333, 1335-36 (D.C. Cir. 2006) (describing the process in two steps – the "Attribution Step" (corresponding to what EPA refers to as steps one and two as laid out above) and the "Determination Step" (which EPA refers to as step three)). The Act and EPA's regulations provide that BART determinations "for fossil-fueled power plants having a total generating capacity greater than 750 megawatts *must be made* pursuant to the guidelines in appendix Y of [40 C.F.R. Part 51]." 40 C.F.R.

§ 51.308(e)(1)(ii)(B) (emphasis added); 42 U.S.C. § 7491(b)(2). The BART Guidelines are mandatory for States to apply in conducting the five-factor BART determination Step, but are not mandatory as to the BART-eligibility or "subject-to-BART" steps. *See UARG*, 471 F.3d at 1338–39.

B. Reasonable Progress Sources, Long-Term Strategy, and Reasonable Progress Goals

EPA's regulations also require that SIPs include emission limits, compliance schedules, and "other measures as may be necessary to make reasonable progress toward meeting the national goal." 42 U.S.C. § 7491(b)(2); *see* 40 C.F.R. § 51.308(d) (describing the core components and requirements related to regional haze planning). Any enforceable emissions limitations or other measures deemed necessary to make reasonable progress are incorporated into a "long-term (ten to fifteen years) strategy for making reasonable progress toward meeting the national goal[.]" 42 U.S.C. § 7491(b)(2)(B); *see* 40 C.F.R. § 51.308(d)(3) (SIPs must include a "long-term strategy that addresses regional haze visibility impairment"). The process of evaluating what controls may be necessary for reasonable progress—and therefore included in the long-term strategy—is commonly referred to as the "reasonable progress analysis."

As part of assessing reasonable progress toward the national visibility goal, States consider both existing and potential emissions control measures, including

BART, as well as the visibility impacts of controls established through other programs under the Act.[7] In addition to emission reductions achieved through BART, sources that are not BART-eligible or that are eligible but not "subject-to-BART" also may be required to install emission controls to fulfill the overall directive that States make reasonable progress toward natural visibility conditions.[8] *See* 40 C.F.R. § 51.308(d)(3). These additional sources are commonly referred to as "reasonable progress sources." *Id.* States have the flexibility to select which sources are reasonable progress sources based on an assessment of the degree to which particular sources or source categories contribute to the regional haze problem. *See Reasonable Progress Guidance* 3.

Once reasonable progress sources have been identified, States determine what measures, if any, are necessary to address emissions from those sources. 42 U.S.C. § 7491(g)(1); 40 C.F.R. § 51.308(d)(1). Congress specified that States must consider four factors in conducting this analysis: (a) the costs of compliance;

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[7] Emission reductions achieved through other programs under the Act may be significant. *See Guidance for Setting Reasonable Progress Goals Under the Regional Haze Program* 4.1 (June 1, 2007) ("*Reasonable Progress Guidance*"), *available at* https://www3.epa.gov/ttn/naaqs/aqmguide/collection/cp2/20070601_wehrum_reasonable_progress_goals_reghaze.pdf.

[8] In some instances, a State may be required to consider whether additional controls on a BART source are needed to make reasonable progress.

(b) the time necessary for compliance; (c) the energy and non-air quality environmental impacts of compliance; and (d) the remaining useful life of any existing source subject to such requirements. 42 U.S.C. § 7491(g)(1); 40 C.F.R. § 51.308(d)(1)(i)(A); *see also Reasonable Progress Guidance* 4.2, 5.0–5.4.

A State's long-term strategy is the compilation of all enforceable emission limitations, compliance schedules, and other measures it will use to make reasonable progress. *See* 77 Fed. Reg. 11,839, 11,844 (Feb. 28, 2012). These measures will include both BART and any new emission controls identified as reasonable during a reasonable progress analysis using the four statutory factors. After determining what controls and other measures must be included in their long-term strategies, States must calculate "reasonable progress goals," which reflect the degree of visibility improvement that will be achieved through implementation of those measures.[9] 40 C.F.R. § 51.308(d)(1).

[9] Reasonable progress goals themselves are not directly enforceable. 40 C.F.R. § 51.308(d)(1)(v). But neither are they "goals" in sense of mere "aspirations." Rather, they are "analytical benchmarks" that quantify the visibility improvement expected to occur at a given Class I area during a particular planning period "after all reasonable control measures . . . have been implemented." 79 Fed. Reg. 52,420, 52,461 (Sept. 3, 2014).

II. FACTUAL BACKGROUND

This Court's review of the Final Rule arises against the background of a long and complicated history of regional haze SIP submissions by Louisiana, only the most relevant aspects of which are discussed here.

A. EPA's Actions on Louisiana's 2008 SIP Submission

On June 13, 2008, Louisiana submitted a SIP to address regional haze. *See* 82 Fed. Reg. at 60,521 (discussing Louisiana's SIP submittal history). EPA took a bifurcated approach in reviewing Louisiana's submission. 77 Fed. Reg. at 11,839. First, in a national rulemaking undertaken in response to the D.C. Circuit's remand of an emissions trading program called the Clean Air Interstate Rule ("CAIR"), promulgated under the interstate-pollution program of the Act, *see* 42 U.S.C. § 7410(a)(2)(D)(i)(I), EPA issued limited disapprovals of a number of States' regional haze plans—including Louisiana's—to the extent they relied on CAIR to satisfy the BART, reasonable progress, and associated long-term strategy control technology requirements for electric generating units. 77 Fed. Reg. 33,642 (June 7, 2012) ("2012 National Rule"). Four weeks later, EPA finalized a related action specific to Louisiana which had two components that are relevant here: (1) a partial disapproval of elements of Louisiana's 2008 regional haze SIP submission for deficiencies separate from, and going beyond, those issues related to the SIP's reliance on CAIR addressed by the limited disapproval in the 2012 National Rule;

and (2) a partial approval of the remainder of Louisiana's 2008 regional haze SIP submission, including a limited approval of the aspects related to CAIR. 77 Fed. Reg. 39,425 (July 3, 2012) ("2012 Regional Rule").

The actions taken by EPA in the summer of 2012 to address Louisiana's SIP—*limited* approval/*limited* disapproval, and *partial* approval/*partial* disapproval—must be distinguished from one another. These two types of actions are undertaken for different reasons and trigger different consequences. Under EPA's long-standing guidance, a limited approval constitutes an approval of all or part of a SIP submittal based on a finding that it strengthens the SIP as a whole even though the affected portions do not meet all applicable requirements. *See* Processing of State Implementation Plan (SIP) Revisions at 2–4, EPA Memorandum from John Calcagni, Director, Air Quality Management Division, Office of Air Quality Planning & Standards, to Air Division Directors, EPA Regional Offices I–X, July 9, 1992, located at http://www.epa.gov/sites/production/files/2015-07/documents/procsip.pdf ; 42 U.S.C. § 7410(k)(3), 7601(a); *see also* 77 Fed. Reg. at 39,426. Accordingly, the measures subject to a limited disapproval/limited approval (these are complementary actions—they apply to the same set of measures simultaneously) are fully federally enforceable, with the caveat that a limited approval does not fully satisfy the CAA requirement at issue and some further additional action by

the State, or EPA through a FIP, is still necessary to bring the SIP into full compliance with the Act. *See* Calcagni Memo at 2–4. Conversely, measures that are subject to a *partial disapproval* are not incorporated into the SIP, and are not enforceable as federal law. *Id.* at 2, 9.

Thus, as EPA explained in the 2012 Regional Rule, that rule had the effect of partially disapproving the long-term strategy insofar as it relied on deficient BART determinations for four non-electric generating unit sources in the State that are not at issue here; the other aspects related to Louisiana's long-term strategy, including its selection of sources to analyze for reasonable progress controls, were incorporated into the SIP through a partial approval. 77 Fed. Reg. at 39,426.

Meanwhile, the 2012 National Rule, which included a limited disapproval of Louisiana's regional haze SIP insofar as it relied on CAIR to satisfy the BART, reasonable progress, and associated long-term strategy requirements for electric generating units, obligated the State or EPA to take action to rectify that specific shortcoming.

B. Louisiana's 2017 SIP Revisions.

To bring its SIP into compliance, Louisiana was required to revise it to, among other things, set BART for the electric generating units at the Nelson and Brame facilities. Each of those power plants is BART-eligible and has a capacity in excess of 750 megawatts. 82 Fed. Reg. at 60,525–26. They also are two of the

largest sources of SO_2 and NO_x emissions in Louisiana. *Id.* On February 10, 2017, Louisiana submitted a SIP revision to address the deficiencies related to BART for certain sources, including the electric generating units at Nelson and Brame. *Id.*

1. "Subject-to-BART" analysis.

As to the "subject-to-BART" analysis, instead of making a decision to collectively include *all* BART-eligible units as "subject-to-BART" (which Louisiana could have done under the BART Guidelines), the State analyzed individual sources to determine which, if any, should be exempted from being "subject-to-BART." Louisiana concluded that the Nelson and Brame units should be "subject-to-BART" because they may cause or contribute to visibility impairment at two Class I areas: (1) the Breton National Wilderness Area, which is the only Class I area within Louisiana; and (2) the Caney Creek Wilderness Area in southwest Arkansas. Index #21 at I.F, I.H, App1804-05, 1806.

In reaching those conclusions, Louisiana reviewed the results of a dispersion model known as CALPUFF to analyze visibility impairment from those sources. CALPUFF assesses the air-quality impacts, including visibility, from a single source of emissions. 70 Fed. Reg. at 39,122. The BART Guidelines provide that States "can use CALPUFF or other appropriate model to estimate the visibility impacts from a single source at a Class I area." Index #5.89, App634; 40 C.F.R. Pt. 51, App. Y, III.A.3. CALPUFF "is the best modeling application available for

predicting a single source's contribution to visibility impairment." 70 Fed. Reg. at 39,122.

To model a source's visibility impacts, "CALPUFF predicts 24-hour average pollutant concentrations based on source emissions and how they disperse in the atmosphere" over a certain period and then converts those concentrations to daily deciview impacts. Index #5.89 at 9–10, App636-37; *see* 70 Fed. Reg. at 39,121. "The CALPUFF assessment is specific to each source, taking into account the individual source's emission characteristics, location, and the particular meteorological, topographical, and climatological conditions of the area in which the source is located . . . ." *Id.* at 39,122. CALPUFF modeling is designed to provide a conservative assessment of sources' maximum "potential impacts," which is appropriate to a "screening" stage of analysis. *Id.* at 39,123, 39,129. The purpose of this screening analysis at the "subject-to-BART" step is to determine if a source warrants a closer look. *Id.* at 39,126.

CALPUFF modeling has been used in nearly every BART analysis for regional haze SIPs in the country. Index #5.20 at 32, App167. In 2017, although EPA removed CALPUFF as a preferred model for other air quality modeling applications under the CAA, the Agency emphasized that CALPUFF remains the recommended model for States to use in making their "subject-to-BART" determinations for regional haze SIPs. 82 Fed. Reg. 5,182, 5,196 (Jan. 17, 2017).

Here, in response to an information request from EPA and to assist Louisiana with its BART analysis, Industry Petitioners conducted modeling runs using the CALPUFF model for the Nelson and Brame units and provided the results to Louisiana. After identifying errors in Industry's CALPUFF modeling, EPA conducted its own CALPUFF modeling to correct the errors. *See* Index #5.20 at 6, App141. The CALPUFF modeling conducted by *both* EPA and Industry Petitioners showed that the Nelson and Brame sources each had a greater than 0.5 deciview impact on the Breton and Caney Creek Class I areas. Index #21 at I.F, I.H, App1804-05, 1806; Index #5.89 at 29, 34, App656, 661. For example, EPA's CALPUFF modeling showed a maximum visibility impairment of 1.251 deciviews from Nelson and 1.215 deciviews from Brame at Caney Creek. Index #5.89 at 34, 29, App661, 656.

Using the EPA-recommended "contribution" threshold of 0.5 deciviews for analyzing which sources are "subject to BART," 82 Fed. Reg. 22,936, 22,940 (May 19, 2017) ("Proposed Action"); Index #5.89 at 19, App646,[10] Louisiana relied solely on the CALPUFF modeling conducted by EPA and Industry to

[10] Industry Petitioners do not challenge that threshold "contribution" value.

conclude that the Nelson and Brame facilities are "subject to BART." *See* Index #21, App1800-1817; Index #5.20 at 6, 8, 10, App141, 143, 145.[11]

In addition to the CALPUFF modeling, Industry and EPA conducted another type of modeling known as CAMx. CAMx is a photochemical grid model that can project overall air quality conditions taking into account a much larger data set of emissions and air quality variables. Index #5.20 at 49–50, App184-85. Although more complicated and resource-intensive to use, CAMx also can be configured to assess source-specific visibility impacts. *Id.*

As with the CALPUFF modeling, EPA's CAMx modeling corrected errors identified in Industry's CAMx modeling. EPA's CAMx modeling further showed that the sources in question had an impact on visibility that exceeded the 0.5 deciview "contribution" threshold. *Id.* at 6–8, App141-43.

In its 2017 SIP Revision submittals, Louisiana included both EPA's and Industry's CALPUFF and CAMx modeling results as appendices (*see* Index #21.25, App2762-83; #21.29, App2842-56; #21.71, App3184-3239; #21.84, App3240-58; #22.13, App3316-62). Louisiana explained, however, that it lacked

[11] For facilities determined to be "subject-to-BART," the modeling also informed the State's determination of the appropriate BART controls and emission limits. Index #5.20 at 6, 8, 10, App141, 143, 145.

the resources to independently evaluate either Industry's or EPA's CAMx modeling. *See* Index #5.20 at 8, 10, App143-45; Index #14.3 at 3, App1762.

2. BART determinations.

Louisiana then went on to make BART determinations for the Nelson and Brame units. Index #21 at 9-10, 15-16, App1808-09, 1814-15. For Nelson, the State concluded in its SIP revision submitted in February 2017 that visibility improvement from installation and operation of additional controls at each of Nelson's units would be "negligible" and therefore "no further controls are necessary." *Id.* at 16, App1815. In a subsequent SIP revision submitted in June 2017, Louisiana revised its determination to provide that BART for Nelson is a requirement to use low sulfur coal, as explained in detail below.

C. EPA's Actions on Louisiana's 2017 SIP Submission.

On May 19, 2017, EPA issued its Proposed Action to approve Louisiana's February 2017 SIP revision, with the exception of the portion related to Entergy's Nelson facility, on which EPA stated that it was deferring action. *See* 82 Fed. Reg. 22,936. In June 2017, Louisiana submitted a draft SIP revision specific to the Nelson facility, 82 Fed. Reg. at 60,522, containing a revised BART analysis and determination. Index #22, App3259-71. In this revision, Louisiana stated that it was adding to its submission further information EPA provided to it, Index #22 at 5, App3263; this information included CALPUFF modeling for the Nelson facility,

CAMx modeling for the Nelson and Brame facilities, and an analysis of control-cost information relevant to making a BART determination for the Nelson facility. Index #22.13 at Appendix F, App3316-62. Louisiana revised its earlier BART analysis and determination for one of the electric generating units at Nelson—Unit 6—and concluded that the BART emission limitation for SO_2 should be set at a rate reflecting a control strategy of burning low-sulfur coal. Index #22, App3264.

EPA proposed to approve the Louisiana's BART determination of low-sulfur coal for Nelson based on the draft SIP revisions in July 2017. 82 Fed. Reg. 32,294 (July 13, 2017). On August 24, 2017, the State submitted a letter to EPA explaining its intent to extend the compliance date in its draft SIP revision for Nelson Unit 6 by three years. Index #22.24, App3428. EPA thus supplemented its July 2017 proposed approval of the SIP with a further proposed approval to reflect this change in September 2017. 82 Fed. Reg. 44,753 (Sept. 26, 2017).

EPA received the final version of Louisiana's SIP revision addressing the Nelson facility on October 26, 2017. *See* Index #14.1, App1759-81. On December 21, 2017, EPA finalized its approval of all SIP submittals pertaining to the Louisiana regional haze SIP, including for the Nelson facility ("Final Rule"). *See generally* 82 Fed. Reg. 60,520.

D. Petitions for Review and Petition for Reconsideration.

On February 20, 2018, Environmental Petitioners and Industry Petitioners each filed a timely petition for review of EPA's Final Rule. Additionally, on February 20, 2018, Environmental Petitioners submitted to EPA a petition for administrative reconsideration of certain aspects of the Final Rule ("Reconsideration Petition"). EPA denied the Reconsideration Petition on April 9, 2018. EPA Response to the Reconsideration Petition, *available at* https://www.regulations.gov/contentStreamer?documentId=EPA-R06-OAR-2016-0520-0011&contentType=pdf (search for EPA-R06-OAR-2016-0520-0011 at https://www.regulations.gov) ("Reconsideration Response"). Although that petition and EPA's response are not part of the administrative record for the Final Rule, Environmental Petitioners petitioned for judicial review of the same issues on which they also petitioned for administrative reconsideration. Therefore, the Reconsideration Petition and EPA's Reconsideration Response constitute relevant information for judicial consideration and disposition of these issues here.

Environmental Petitioners argued in the Reconsideration Petition that EPA's approval of the Louisiana SIP revision in the Final Rule was "unlawful, arbitrary, and capricious because the Louisiana [SIP] fails to include a long-term strategy." Reconsideration Petition at 1. Specifically, they alleged that (1) EPA should not have approved Louisiana's long-term strategy or reasonable progress analysis

because Louisiana failed to remedy all the deficiencies in these components that EPA identified in the June 7, 2012, limited disapproval and July 3, 2012, partial disapproval; and (2) Louisiana should have conducted a reasonable progress analysis for the Dolet Hills Power Station and concluded that additional controls are necessary to include in the long-term strategy. EPA's response to the Reconsideration Petition's substantive arguments elaborates on the Agency's rationale for concluding that Louisiana had fulfilled its outstanding obligations related to reasonable progress and the long-term strategy arising from the 2012 disapprovals. The response highlighted the portions of Louisiana's initial 2008 SIP submittal that addressed these requirements and explained how EPA's previous actions on that submittal, coupled with Louisiana's subsequent SIP revisions and EPA's December 2017 final action, corrected the deficiencies that had been identified in the 2012 disapprovals. *See* EPA Reconsideration Response at IV. Environmental Petitioners did not challenge EPA's Reconsideration Response.

SUMMARY OF ARGUMENT

The Court's review of EPA's approval of Louisiana's SIP is governed by a familiar standard: Petitioners must demonstrate that EPA's action was arbitrary, capricious, an abuse of discretion, or otherwise contrary to law. Neither

Environmental Petitioners nor Industry Petitioners can meet this standard, and the Court therefore should deny the petitions for review.

Environmental Petitioners attack two aspects of EPA's Final Rule: EPA's approval of Louisiana's BART determination for Nelson, and EPA's approval of the State's reasonable progress analysis and long-term strategy. These arguments suffer from a number of legal infirmities, and are at their core an effort to force Louisiana to adopt Environmental Petitioners' policy preference for a more stringent control technology—scrubbers—at Nelson and for additional reasonable progress controls at the Dolet Hills facility.

Environmental Petitioners argue that Louisiana's BART determination for Nelson runs contrary to the evidence, failed to comply with statutory and regulatory requirements, and is based on a SIP submission that contains errors, and therefore that EPA should not have approved it. This argument ignores both the discretion afforded to States in balancing the statutory factors and selecting BART, and EPA's review and approval based on the *entire* SIP submission to determine if it meets the applicable requirements.

Although the SIP submission Louisiana initially provided to EPA in February 2017 did contain errors, Louisiana's revised, June 2017 submission contained corrected information provided by EPA that Environmental Petitioners do not argue was flawed in any way. Moreover, that submission was fully

compliant with the mandatory BART Guidelines, and Louisiana reviewed it and took all five statutory factors into account in its ultimate determination that low sulfur coal is BART for SO_2 at Nelson. And Environmental Petitioners' objections to the manner in which Louisiana chose to weigh those five factors find no support in the Act or EPA's regulations. Therefore, EPA's approval of Louisiana's BART determination for Nelson was not arbitrary, capricious, or contrary to law.

Environmental Petitioners also challenge EPA's approval of Louisiana's reasonable progress analysis and long-term strategy on the grounds that EPA should have required Louisiana to revisit its earlier determination that only one source, Big Cajun II, might be required to install additional controls for reasonable progress. This argument fails for a number of reasons. First, Petitioners waived the issue by failing to challenge EPA's Reconsideration Denial, where EPA provided a full response to Petitioners' concerns. Second, the argument is a time-barred attack on a decision that was approved by EPA in 2012, and therefore this Court lacks jurisdiction to hear it. Third, if the Court were to address the merits of this issue, it should deny the petition. The statement made by EPA in the 2012 Regional Rule that forms the basis of Environmental Petitioners' argument does not mean what they claim, and Louisiana was not required to revisit its earlier decision to select only certain sources as reasonable progress sources in order to cure the CAIR-related deficiencies EPA identified in the State's 2008 SIP.

Finally, Environmental Petitioners claim that they were denied the opportunity to comment on EPA's rationale for approving Louisiana's long-term strategy. This is wholly without merit. They had ample opportunity to comment on the issue with which they are concerned—EPA's approval of Louisiana's decision of which sources might be subject to reasonable progress controls—in 2012. They failed to do so. Even if EPA had somehow reopened this issue in the rulemaking challenged here, Petitioners in fact commented on the issue of Louisiana's reasonable progress analysis and long-term strategy, both in the rulemaking and through their Petition for Reconsideration, to which EPA responded in detail. Environmental Petitioners did not challenge EPA's Reconsideration Response. The Court should deny Environmental Petitioners' petition for review in full.

In contrast to Environmental Petitioners, Industry Petitioners present a multitude of technical and legal arguments, the underlying theme of which is that the State overreached in determining that the Nelson and Brame facilities were "subject-to-BART," and EPA therefore should not have approved the SIP.[12] These arguments ignore two fundamental principles of the Act: (1) States have discretion

[12] Notably, Industry Petitioners do not challenge EPA's approval of the State's BART Determination, *e.g.*, the actual emissions limits or control technologies. Instead, Industry Petitioners' arguments focus solely on the second step of the BART analysis—EPA's approval of the State's "subject-to-BART" determination.

in their choice of methodology to analyze which BART-eligible sources are "subject-to-BART"; and (2) EPA must approve any State SIP that meets applicable statutory and regulatory requirements.

Industry Petitioners' attacks on Louisiana's reliance on the CALPUFF model challenge to technical and policy choices embedded in the 2005 BART Guidelines themselves, including the recommendation that States use CALPUFF for making "subject-to-BART" determinations. Their arguments also challenge Louisiana's exercise of its discretion under the statute and Guidelines and EPA's approval thereof. The CALPUFF model is designed to allow States to conduct a worst-case screening assessment before exempting sources from BART. Despite Industry's allegations, EPA has not changed the recommendation for States to use CALPUFF to make their "subject-to-BART" determinations. Although Industry may be dissatisfied with the CALPUFF model, EPA long ago addressed the limitations in this model that Industry now attacks. Additionally, EPA provided robust responses to refute Industry's concerns over CALPUFF's alleged "shortcomings." Industry Petitioners fail to show that the CALPUFF modeling relied on by Louisiana was inconsistent with the BART Guidelines or violated applicable requirements such that EPA's approval of the SIP was arbitrary or capricious. The Court therefore should reject Industry Petitioners' challenges to

the CALPUFF modeling and uphold EPA's approval of the SIP based on that modeling.

If the Court does so, there is no reason to consider Industry Petitioners' arguments concerning the additional modeling that EPA performed (using the CAMx model); EPA's approval of Louisiana's SIP can stand on the CALPUFF modeling alone. Nonetheless, even if the Court considers these arguments, they have no merit. Industry's legal challenge to EPA's authority to conduct the CAMx modeling falls flat, as nothing in the statute precludes EPA from conducting its own modeling to correct deficiencies in the modeling that Industry provided. In addition, although Louisiana did not itself rely on CAMx modeling, it included that modeling as an appendix to its SIP, which EPA may appropriately consider as a part of the SIP submittal "as a whole." Further, Industry's highly technical criticisms of EPA's CAMx modeling ignore not only the deference EPA deserves in its modeling choices, but also the fact that EPA's CAMx modeling followed a previously accepted protocol (which Industry's CAMx modeling did not follow). Industry Petitioners' criticisms of EPA's CAMx modeling simply find no basis in the statute, the record, or the law. For these reasons, the Court should deny Industry Petitioners' petition for review on all grounds.

ARGUMENT

I. STANDARD OF REVIEW

The Court reviews EPA's approval of Louisiana's regional haze SIP under the standards in the Administrative Procedure Act ("APA"), which provide that agency action will be upheld unless it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." 5 U.S.C. § 706(2)(A). An agency action is arbitrary and capricious only "if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). This is a "highly deferential" standard, under which "a reviewing court has the least latitude in finding grounds for reversal." *Conoco Phillips Co. v. EPA*, 612 F.3d 822, 831–32 (5th Cir. 2010) (citation omitted).

Questions of statutory interpretation are governed by the two-step test in *Chevron, U.S.A., Inc. v. NRDC, Inc.*, 467 U.S. 837, 842–43 (1984). Under the first step, the court must determine "whether Congress has directly spoken to the precise question at issue." *Id.* at 842. If congressional intent is clear from the statutory language, the inquiry ends. *Id.* at 842–43. If the statute is silent or

ambiguous, however, the court must accept the agency's interpretation if it is reasonable. *Id.* at 843 & n.11.

EPA's factual findings are entitled to substantial deference, and should be upheld as long as they are supported by the administrative record, even if there are alternative findings that also could be supported by that record. *See Arkansas v. Oklahoma*, 503 U.S. 91, 110–13 (1992). Heightened deference applies where, as here, the agency decision is based on evaluation of complex scientific and technical data. *See Texas Oil & Gas Ass'n v. EPA*, 161 F.3d 923, 933–34 (5th Cir. 1998); *see also Avoyelles Sportsmen's League, Inc. v. Marsh*, 715 F.2d 897, 910–11 (5th Cir. 1983) (courts are extremely deferential in cases involving technical records). Even if the agency explains its decision "with less than ideal clarity," a reviewing court will uphold that decision "if the agency's path may reasonably be discerned." *Alaska Dep't of Envt'l Conservation v. EPA*, 540 U.S. 461, 497 (2004) (internal quotation marks omitted).

II. THE COURT SHOULD DENY ENVIRONMENTAL PETITIONERS' PETITION FOR REVIEW

A. EPA Reasonably Concluded that Louisiana's BART Determination for Nelson Satisfies the Applicable Statutory and Regulatory Requirements.

Environmental Petitioners object to EPA's approval of Louisiana's BART determination for SO_2 for the Nelson on essentially two grounds. First, they argue

that Louisiana's BART determination allegedly rested on an analysis EPA found to be flawed and that EPA should have disapproved that determination because it did not ultimately result in selection of a more stringent control technology as BART. Second, Environmental Petitioners argue that the State failed to comply with the mandatory BART Guidelines. These arguments lack merit.

The CAA provides States "wide discretion" in formulating their SIPs, *Union Elec. Co. v. EPA*, 427 U.S. 246, 250 (1976), including the "broad authority to determine the methods and particular control strategies they will use to achieve the statutory requirements." *BCCA Appeal Grp. v. EPA*, 355 F.3d 807, 822 (5th Cir. 2003) (citing *Union Elec. Co.*, 427 U.S. at 266). This Court has repeatedly emphasized, EPA's role in reviewing the SIP is statutorily circumscribed. *Luminant Generation Co LLC v. EPA.*, 714 F.3d 841, 845–46 (5th Cir. 2013); *Luminant Generation Co. LLC v. EPA,* 675 F.3d 917, 921 (5th Cir. 2012). EPA "shall approve such submittal as a whole if it meets all of the applicable requirements of [the Act]." 42 U.S.C. § 7410(k)(3).

As shown below, EPA reasonably concluded, based on the entire SIP submission, that Louisiana's determination that low sulfur coal constitutes BART for SO_2 at Nelson met all the applicable requirements under the Act, the Haze Rule, and the BART Guidelines. In arguing otherwise, Environmental Petitioners disregard Louisiana's explanation underlying its BART determination and

otherwise ignore the full contents of the record. But Environmental Petitioners' preference for a different control technology at Nelson—even one that the State might permissibly have chosen had it weighed the relevant factors differently—does not render the State's regional haze SIP unapprovable.

1. EPA's approval of Louisiana's determination that low sulfur coal is BART for Nelson was not arbitrary, capricious, or otherwise contrary to law.

Environmental Petitioners argue that Louisiana's BART determination for SO_2 for Nelson is contrary to the analyses included in the SIP submission, including those provided to the State by EPA. Principal Brief of Petitioners Sierra Club and National Parks Conservation Association ("Env. Br."), 33–39. Essentially, Environmental Petitioners contend that the evidence in the record compelled a different choice of controls as BART than the one selected by Louisiana. *Id.* This argument reflects a simple difference of policy preference.

Louisiana explained that, after reviewing all the information included in its submission, including the modeling, cost calculations, and other information provided by EPA, the State carefully weighed the five statutory factors in making its BART determination. Index #14.1 at 6, App1763. After weighing all the information on the five statutory BART factors included in its SIP submission for a number of control technologies, including dry sorbent injection, wet and dry scrubbers, and low sulfur coal, Louisiana explained that it was choosing low sulfur

coal as the appropriate control for SO_2 for Nelson "based on consideration of economics, energy impacts, non-air quality environmental impacts, and impacts to visibility." 82 Fed. Reg. 60,535. The narrative portion of the SIP submission pointed to the difference in annualized costs and to the additional power demands and waste produced by employment of both wet and dry scrubbers as important considerations in Louisiana's decision making. Index #14.1 at 6, App1763.

As noted, States have "wide discretion" in the formulation of SIPs within the framework of the applicable requirements. *Union Elec. Co.*, 427 U.S. at 250. EPA recognized this in the context of BART determinations when it promulgated the BART Guidelines, which provide a process for determining BART based on the five statutory factors but do not dictate the weight or priority that states assign to those factors. Dissatisfied with the choice made by Louisiana, Environmental Petitioners ask this Court to construe the BART Guidelines to preclude a State's discretion to weigh the factors in any way other than that which would result in Petitioners' preferred control technology as BART. Such a reading, however, is belied by the Guidelines themselves.

As EPA explained when it promulgated the BART Guidelines:

> "[T]he degree of improvement in visibility which may reasonably be anticipated to result from the use of [BART]" is only one of five criteria that the State must consider together in making a BART determination. The State makes a BART determination based on the estimates available for each criterion, and as the CAA does not specify how the State should take these

> factors into account, *the States are free to determine the weight and significance to be assigned to each factor.*

70 Fed. Reg. at 39,123 (emphasis added); *see also Texas v. EPA*, 829 F.3d 405, 428 (5th Cir. 2016) (concluding at preliminary motion stage that petitioner showed a likelihood of success on its argument that EPA improperly failed to defer to Texas's application of the statutory factors in its regional haze SIP);[13] *Oklahoma v. EPA*, 723 F.3d 1201, 1209 (10th Cir. 2013) ("states ha[ve] broad authority to weigh the statutory factors and make BART determinations"); *Ariz. ex rel. Darwin v. EPA*, 852 F.3d 1148, 1161 (9th Cir. 2017) (explaining, in the context of reviewing a regional haze FIP where EPA stood in the State's shoes, that while "Petitioners may not like that the EPA accorded some factors greater weight than others, it is simply not our place to substitute our judgment for that of the EPA").

The Guidelines do not impose an order of operations or decisional rule for states to use in evaluating controls for BART. Environmental Petitioners suggest that Louisiana was required to start with the control option projected to effect maximum reductions, and to choose that option as BART unless it fell outside the range of what was determined to be BART at other sources. Env. Br. 39. That is incorrect. EPA explained when promulgating the Guidelines that it considered *and*

[13] The Court has not rendered a final disposition in this case, which is currently stayed pending EPA's action on voluntary remand.

rejected an option under which "States would use a sequential process for conducting the impacts analysis, beginning with a complete evaluation of the most stringent control option," and then choose that option as BART unless it imposed unreasonable costs of compliance or would create outstanding issues regarding energy and non-air quality environmental impacts. 70 Fed. Reg. at 39,130. Instead, EPA finalized the second option on which it had taken comment, which provides that "States could choose to begin the BART determination process by evaluating the least stringent technically feasible control option or by evaluating an intermediate control option drawn from the range of technically feasible control alternatives." *Id.*

Environmental Petitioners further point to the "presumptive" SO_2 limits contained in the BART Guidelines, Env. Br. 28, which provide that certain electric generating units at power plants such as Nelson will achieve a specified level of emission reductions. 40 C.F.R. Pt. 51, App. Y, IV.E.4. However, this provision also provides that States may "determine that an alternative control level is justified based on careful consideration of the statutory factors." *Id.* The BART Guidelines expressly allow for Louisiana's ability to weigh the five factors and to reach a BART determination other than that which Environmental Petitioners desire.

Nor do the BART Guidelines require States to select the most stringent control whose costs or benefits fall within the range of previous BART determinations at other sources. Some variation in BART determinations is inevitable given the fact-intensive nature of case-by-case emissions limits such as BART, and the State's discretion under the statute and regulations to weigh factors and make site-specific determinations. *See* 82 Fed. Reg. 60,520. Differences from one BART determination to another do not establish that the later determination is unreasonable.

And while EPA has stated that a comparison to past BART determinations can be useful in some circumstances, the BART Guidelines do not require States to determine BART by reference to prior determinations. The subsection of the Guidelines cited by Environmental Petitioners for that proposition, *see* Env. Br. 38, speaks specifically to information that States should provide in their cost impacts analyses (the "costs of compliance" BART factor) in unusual circumstances when a State finds that the cost-effectiveness estimates associated with a particular control technology for a source exceed the cost of controls that have been recently installed at similar facilities. 40 C.F.R. Pt. 51 App. Y, IV.D.4.f. The BART Guidelines suggest that, for the purpose of determining when such "unusual circumstances" are present, States consider whether the cost-effectiveness estimates fall outside the range of values associated with other BART

determinations. Environmental Petitioners do not argue that such a situation—where a control technology that would be cost effective at a similar facility is not cost-effective at Nelson—exists here.

Further, Environmental Petitioners have not alleged that Louisiana was inconsistent in its application of the BART factors to the sources within the State, such as weighting factors in a different way for different sources. As EPA explained, each BART determination depends on the specific situation, and requires consideration of relevant source-specific factors such as the characteristics of the fuel burned at that source, existing controls, control efficiency of available control technologies, the remaining useful life of the facility, the costs and incremental costs of controls, and the anticipated visibility benefits of available controls. 82 Fed. Reg. at 60,534–35. Consequently, "[s]ome variation is to be expected because SIP actions are highly fact-dependent." *Id.*

Louisiana was within its discretion to adopt the control technology it deemed best suited to the situation, so long as the ultimate effect is compliance with the Act. *Cf. Train v. NRDC, Inc.*, 421 U.S. 60, 79 (1975) ("[T]he State is at liberty to adopt whatever mix of emission limitations it deems best suited to its particular situation."). Petitioners do not establish that EPA's approval of Louisiana's BART determination for Nelson was arbitrary, capricious, or contrary to applicable BART requirements.

2. Environmental Petitioners' arguments that Louisiana's analysis was deficient and did not consider all five factors ignore the whole record.

Environmental Petitioners enumerate a list of shortcomings in the analysis provided by Entergy to Louisiana and included with the State's SIP revisions in both February and October 2017, *see* Env. Br. 29–32; 82 Fed. Reg. at 32,297, and argue that EPA's approval of Louisiana's SIP submission was unlawful because of them. In fact, EPA was aware of these errors when it approved the SIP: the list is drawn directly from EPA's proposed rule. *See* 82 Fed. Reg. at 32,297. The presence of Entergy's flawed analyses in Appendix D does not, however, irredeemably taint the entire submittal, which also includes corrected information sufficient to render the SIP consistent with all applicable requirements. Environmental Petitioners' argument that Louisiana's SIP revision failed to comply with the BART Guidelines is similarly belied by a review of the entire record. EPA's determination that Louisiana's SIP submission complied with the Act and the BART Guidelines was reasonable and supported by the record.[14]

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[14] Environmental Petitioners' suggestion—accompanied by a citation to *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502 (2009)—that EPA's approval of Louisiana's BART determination represents an unexplained shift in policy, *see* Env. Br. 37–39, is inaccurate. EPA has not changed the BART Guidelines, nor has EPA changed its interpretation of those Guidelines. EPA has instead applied the Guidelines to Louisiana's submission and approved the submission thereunder.

a. EPA can look to the entire SIP submission in evaluating whether a State's SIP satisfies the Clean Air Act.

EPA considers the entirety of a State's SIP submission when determining whether that submission meets the applicable statutory and regulatory requirements. CAA Section 110(k)(3) calls on EPA to consider whether the submission "*as a whole* . . . meets all of the applicable requirements of this chapter." 42 U.S.C. § 7410(k)(3) (emphasis added). Appendix V to 40 C.F.R. part 51, which governs the criteria for determining the completeness of SIP submissions, further specifies that plan submissions for review by EPA "shall" include both administrative materials, such as a copy of the State regulation to be incorporated into the plan and evidence of public notice of the SIP revision, and technical support, which includes "[m]odeling information required to support the proposed revision, including . . . modes of models used, assumptions, and other information relevant to the determination of adequacy of the modeling analysis." 40 C.F.R. Pt. 51, App. V, 2.2(e). As EPA further elaborated in its response to comments, the Agency "considers the final SIP document as well as any

accompanying supporting documents or appendices that have been submitted by the State." Index #5.20 at 8, App143.[15]

To that end, in reviewing Louisiana's SIP, EPA looked at the entire submission, which contained not only Entergy's analyses in Appendix D, but also independent cost-effectiveness information and visibility modeling in Appendix F (originally conducted by EPA and included by Louisiana in its SIP submission). It is not uncommon for a state to confer with EPA as it develops a SIP, nor is it uncommon for EPA to provide information (including factual information) during that process. In this instance, where Louisiana reviewed EPA's information and decided to include it in its SIP submission, there can be no question that EPA also appropriately considered this information in evaluating the State's submission "as a whole."

The information on the individual BART factors in the SIP submission that was originally produced by EPA was developed in accordance with the Act, the Haze Rule, and the BART Guidelines. Environmental Petitioners make no argument that this information was incorrect or faulty; rather, they imply that

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[15] Such supporting documents or appendices are not limited to those submitted by the State: "[w]here a state fails to supply the information necessary for a proper evaluation by the EPA, the EPA must be free to use its own acquired knowledge." *Nat'l Steel Corp., Great Lakes Steel Div. v. Gorsuch*, 700 F.2d 314, 323 (6th Cir. 1983).

Louisiana could not have relied on it because the State did not change its ultimate determination of BART for SO_2 for Nelson after reviewing Appendix F. Env. Br. 31. But that does not render the SIP unapprovable; the State may, to the extent supported by the record as a whole, reach the same conclusion both before and after reviewing any particular set of information.

It is true that EPA identified a number of errors in the February 2017 SIP, and that the State's consideration of information provided by EPA in regard to those errors did not alter the State's BART determination for Nelson after considering the information provided by EPA that corrected those errors. But the final SIP submission contains *both* sets of information, and Louisiana explained in its October 2017 SIP submission that it arrived at its BART determination "after a review of both Entergy's and EPA's information." Index #14.1 at 6, App1763. There is no evidence in the record to support Environmental Petitioners' conclusory assertion that "[t]he State's proposed BART determination for Nelson rested *solely* on an analysis prepared by Nelson's owner, Entergy . . . ." *See* Env. Br. 29 (emphasis added). The fact that the submission contained Entergy's faulty analyses does not mean that Louisiana relied solely on them, nor does the fact that Louisiana did not change its BART determination after reviewing EPA's corrected information.

As explained above, neither the statute nor the BART Guidelines mandate that states weigh the five BART factors in a particular manner. Instead, the Guidelines provide states discretion in deciding how to weigh those factors to arrive at a BART determination. *See* 40 C.F.R. Pt. 51, App. Y, IV.E.2 ("You should provide a justification for adopting the technology that you select as the 'best' level of control, including an explanation of the CAA factors that led you to choose that option over the other control levels."). Louisiana considered all the information included in its October 2017 SIP submission, weighed that information in arriving at its final BART determination, and explained the reasons for its decision. *See* 82 Fed. Reg. 60,534–35; Index #14.1 at 6, App1763.

EPA reviews the *entirety* of a SIP submission before it ultimately decides whether it is approvable. As discussed below, in this instance, after such review, EPA found both that the submission contained accurate information on each of the five BART factors that complied with the requirements of the BART Guidelines, and that Louisiana's path to its BART determination for Nelson could reasonably be discerned from the record before it. EPA's determination, after reviewing the entirety of the SIP submission, that "the State's SIP meets the requirements of the Act and the applicable regulations and guidance," 82 Fed. Reg. at 60,532, was reasonable.

b. EPA reasonably concluded, based on Louisiana's review of the information in its submission, that the State considered the five statutory factors required by the BART Guidelines.

Environmental Petitioners contend that EPA's approval of Louisiana's regional haze SIP was unlawful because the State failed to consider four of the five statutory factors for determining BART in accordance with the BART Guidelines established by EPA.[16] Env. Br. 39–41. But Louisiana explained that it carefully considered *all* the materials included in its SIP submittal, which included EPA's detailed information on the five factors. *See* Index #14.1 at 6, App1763. Environmental Petitioners have identified no flaws in EPA's information. Instead, they attack how Louisiana *weighed* the factors in reaching its BART determination. While the BART Guidelines provide a process for examining each of the five factors, they do not dictate the weight or priority states assign to those factors. Each of the four factors Petitioners argue were not sufficiently considered is addressed in turn below.

[16] EPA agrees that the State was required to use the BART Guidelines in determining BART for Nelson. *See* 82 Fed. Reg. at 60,533 ("We agree with the comment that the total capacity of the Nelson facility exceeds 750 MW and that the State was therefore required to determine BART pursuant to the BART Guidelines for this source.").

i. Louisiana considered existing controls at Nelson.

Environmental Petitioners argue that Louisiana failed to take into account any existing pollution controls in use at Nelson. They claim that use of low-sulfur coal cannot reasonably be considered to afford any visibility benefits because the plant is already using low-sulfur coal. This is irrelevant. As required, both Entergy's and EPA's analyses described existing control equipment at the unit. *See* Index #14.1, Appendix D, F, App3065-3183, App3316-62. EPA's "draft Technical Support Document" in Appendix F noted that Entergy has purchased both higher- and lower-sulfur coals during the baseline period,[17] and EPA applied the premium associated with purchasing *only* low-sulfur coal to the fraction of higher-sulfur coal purchased by Entergy to account for the differential. Index #22.13 at 41, App3359. This value—the price increase attributed to going from the quantity of low sulfur coal purchased in the baseline period to the greater quantity under a low-sulfur-coal-only scenario—was incorporated into the cost-effectiveness calculations. Therefore, Louisiana considered existing SO_2 controls in use at the source.

[17] For the purposes of this simplified explanation, the baseline period represents the pre-BART status of the source. Any changes in cost associated with potential BART controls are assessed relative to the baseline period.

Environmental Petitioners' claim also ignores that Louisiana modified the regional haze SIP to extend the compliance deadline for Nelson to achieve BART. This allows for a transition from existing contracts to contracts for a greater quantity of low-sulfur coal. *See* 82 Fed. Reg. at 44,753. Their argument that no change will occur at Nelson is thus contradicted by information central to Louisiana's decisionmaking process.

ii. Louisiana considered the remaining useful life of Nelson.

Environmental Petitioners' argument that Louisiana failed to consider the remaining useful life of the Nelson Power Plant is also unavailing. Both Entergy and EPA explained that there was no reason—such as an enforceable shutdown agreement—to anticipate that the remaining useful life of the plant would be any shorter than the cost recovery period for the control equipment's capital costs, which was set at thirty years for scrubbers. *See* Index #22.13 at 47, App3362; Index #21.70 at 4-4, App3081. Louisiana was aware of this interplay between remaining useful life and cost. The SIP acknowledges that low-sulfur coal would "result in visibility benefits at a lower *annual cost*" relative to a more stringent control technology. Index #14.1 at 6, App1763 (emphasis added). Annual cost is calculated by using either the useful life of the controls or the remaining useful life of the facility, whichever is shorter, as the denominator. Thus, the remaining

useful life of a facility has no effect on the analysis unless that period is *shorter* than the time period for amortization of the capital cost of a given control, which is not the case here. *See* 40 C.F.R. Pt. 51, App. Y, IV.D.4.k ("If the remaining useful life will clearly exceed this [amortization] time period, the remaining useful life has essentially no effect on control costs and on the BART determination process.").

Because BART determinations are source-specific, it is to be expected that some factors will play a larger role in some analyses than in others. Here, nothing was anticipated to reduce the remaining useful life of the plant below the thirty-year cost recovery period. Therefore, the remaining useful life does not impact the cost analysis. There was no reason for Louisiana to further consider and belabor that phase of its analysis.

iii. Louisiana considered the cost-effectiveness of the available control options.

Environmental Petitioners contend that Louisiana failed to consider cost-effectiveness, and that EPA's approval of its regional haze SIP was arbitrary and capricious as a result. This is also belied by the record before EPA. Louisiana included estimates of annual costs, cost-effectiveness, and incremental costs for each of the control options evaluated in its regional haze SIP submittal. As explained above, Louisiana stated that it had reviewed all the materials included in

the submission, including the cost analyses provided by EPA and Entergy. Each included detailed cost effectiveness analyses. Although EPA identified errors in Entergy's analysis, the analysis provided by EPA followed the applicable BART Guidelines and corrected the errors present in Entergy's analysis. Moreover, Environmental Petitioners do not allege that EPA's cost information did not comply with the applicable requirements. Louisiana explained that it considered this information before carefully weighing all five of the statutory factors for BART. Index #14.1 at 6, App1763. This factor, too, was properly considered.

iv. Louisiana considered the visibility benefits of the available pollution control options.

The record similarly demonstrates that Louisiana considered the visibility benefits of the pollution controls evaluated as part of its BART determination for Nelson. Both EPA and Entergy conducted CALPUFF and CAMx modeling to evaluate the potential visibility benefits that could be achieved from each control technology that was considered, and provided to Louisiana documents summarizing the results of the modeling and the protocols used to conduct that modeling. Index #21.70, App3065; Index 22.13, App3316 As with the cost-effectiveness analyses, although EPA identified errors in Entergy's visibility modeling analyses, the analysis provided by EPA followed the applicable BART Guidelines and corrected the errors. The State, in turn, reviewed all of the

information received from both EPA and Entergy before making its BART determination. Index #14.1 at 6, App1763. Louisiana acknowledged that greater visibility benefits could be achieved through use of a scrubber, but explained that low-sulfur coal was a more appropriate choice for BART given the State's source-specific weighing of the five statutory factors. *Id.*

For all four of the BART factors identified by Environmental Petitioners as insufficiently considered, EPA reviewed the entirety of the SIP submission and reasonably determined that Louisiana considered the required factors. Thus, EPA's approval of Louisiana's BART determination was not arbitrary, capricious, or otherwise unlawful.

At bottom, Environmental Petitioners prefer scrubbers as BART for Nelson. But that policy choice is not theirs to make—nor, when reviewing a SIP submission, is it EPA's. *See* 70 Fed. Reg. at 39,123; *Oklahoma*, 723 F.3d at 1209 ("states ha[ve] broad authority to weigh the statutory factors and make BART determinations"). EPA examined Louisiana's BART determination for Nelson in the context of the entirety of the SIP submission. Although the State could have expanded its discussion of its decisionmaking process, the standard of review is deferential. EPA determined that the path Louisiana took in weighing the five factors and reaching its BART determination could be reasonably discerned from the record before it. *Cf. United States v. Garner*, 767 F.2d 104, 118 (5th Cir.

1985). Likewise, the path EPA took in evaluating Louisiana's SIP submission and determining that it met the requirements of the CAA and BART Guidelines is laid out in its rulemaking documents and the record for the Final Rule. Therefore, EPA's approval of Louisiana's BART determination for Nelson is not arbitrary, capricious, or otherwise contrary to law.

B. EPA Reasonably Concluded That Louisiana's Reasonable Progress Analysis and Long-Term Strategy Satisfy the Clean Air Act.

Environmental Petitioners also contend that EPA's approval of Louisiana's regional haze SIP revision is arbitrary and capricious with respect to the State's long-term strategy, because the State did not conduct what Environmental Petitioners allege was a required reasonable progress analysis for certain sources of visibility impairing pollution. But in doing so they misunderstand—or mischaracterize—the nature of EPA's past actions and statements relating to Louisiana's regional haze SIP. EPA approved the SIP element Petitioners take issue with—Louisiana's determination that Big Cajun II was the only facility that may need to install additional controls as part of the State's plan to ensure reasonable progress towards the programmatic goal of visibility improvement—in the 2012 Regional Rule. Consequently, Petitioners' argument is unmasked as a time-barred collateral attack on EPA's 2012 partial approval of Louisiana's SIP, and this Court lacks jurisdiction to hear it.

Nonetheless, Environmental Petitioners have waived this argument. Environmental Petitioners fail to mention anywhere in their Opening Brief that they petitioned EPA for administrative reconsideration of the Agency's December 2017 determination that Louisiana had satisfied the Act's reasonable progress and long-term strategy requirements and that EPA subsequently denied that request in a detailed response. Although that response postdates the administrative record underlying the December 2017 Final Rule, it is relevant to the Court's evaluation of Environmental Petitioners' reasonable progress argument. Moreover, this Court, at EPA's request, stayed proceedings to allow EPA time to consider Environmental Petitioners' Petition for Reconsideration. EPA fully responded to Environmental Petitioners' arguments in the Reconsideration Response, and Environmental Petitioners did not challenge that response. Having failed to do so in this Court, Environmental Petitioners should be deemed to have waived the issue. *See* Fed. R. App. P. 15(a)(2)(C) (requiring that a petition "specify the order or part thereof to be reviewed"); *id.* 28(a)(5) (a party who fails to identify an issue it wants reviewed waives the issue); *Corbesco, Inc. v. Dole*, 926 F.2d 422, 428–29 (5th Cir. 1991) (a party that failed to raise an affirmative defense to regulatory action to court of appeals waived the issue).

Moreover, this issue is moot, because EPA has already taken the action that this Court could likely order as a remedy here, *i.e.*, a remand to further explain the

Agency's reasoning; such further justification has already been provided in EPA's Reconsideration Response. Environmental Petitioners could have challenged that action if they believed it to be in error. They chose not to. Litigating this claim here is a waste of judicial resources on an issue that has grown stale due to subsequent administrative action. The Court should not hear Environmental Petitioners to challenge an action where the Agency has responded to a petition for reconsideration, and Petitioners had every opportunity to challenge that response and move to consolidate it with this (at the time abated) action—and declined to do so.

Finally, even if the Court addresses the merits of Environmental Petitioners' arguments related to reasonable progress, they have failed to demonstrate that EPA's approval of Louisiana's long-term strategy was arbitrary, capricious, or otherwise contrary to law.

1. Environmental Petitioners may not challenge EPA's 2012 approval of Louisiana's selection of reasonable progress sources in this action.

If the Court concludes that Environmental Petitioners' failure to challenge EPA's action on their Petition for Reconsideration does not support dismissal of this claim, it is nonetheless time-barred as a belated attack on EPA's 2012 SIP approval.

EPA approved Louisiana's decision of which sources to select as reasonable progress sources—which included Lousiana's exclusion of the Dolet Hills facility—in the 2012 Regional Rule.[18] This rule was a partial limited approval and partial disapproval of Louisiana's 2008 SIP submission. It both disapproved portions of the submission that did not meet the applicable CAA requirements, and approved (through a limited approval) the remainder of the submission.

EPA uses limited approvals when it finds that a submission strengthens the SIP as a whole even though the submission itself does not fully satisfy all applicable requirements. *See* Calcagni Memo at 2–4. A limited approval is always paired with a complementary (but not always contemporaneous) limited disapproval identifying those elements of the SIP submission that are flawed and

[18] As explained, EPA acted on Louisiana's 2008 SIP submission in two separate actions: (1) in the 2012 National Rule, a limited disapproval of the SIP insofar as it relied on the Clean Air Interstate Rule ("CAIR") to satisfy the BART, long-term strategy, and reasonable progress requirements for the State's electric generating units, 77 Fed. Reg. 33,642; and (2) in the 2012 Regional Rule, a partial approval/partial disapproval of the SIP on the ground that certain parts of the submittal met the applicable CAA requirements, while others did not. 77 Fed. Reg. 39,425; *see* 82 Fed. Reg. at 60,521. The 2012 Regional Rule also included a "limited approval" of the measures for which EPA had issued the "limited disapproval" on June 7, 2012. EPA explained that although CAIR did not satisfy the applicable statutory or regulatory requirements for regional haze purposes, the Agency approved that measure into the State's SIP as it would strengthen the SIP as a whole until Louisiana (or EPA) remedied the deficiencies. *See* Calcagni memo at 2–4.

will need to be remedied by the State. *Id.* Measures that are subject to a limited disapproval/limited approval are incorporated into the SIP, and as such are fully enforceable. *Id.* This is in notable contrast to a partial disapproval: measures subject to a partial disapproval do not become part of the SIP and are not federally enforceable. *Id.* at 2. Although EPA issued a partial disapproval of other portions of Louisiana's 2008 SIP submission, those portions have nothing to do with the reasonable progress analysis or the aspects of the long-term strategy at issue here.

In the Final Rule challenged here, EPA approved Louisiana's SIP revisions that remedied both the reliance on CAIR to satisfy certain requirements for electric generating units, which had prompted the limited disapproval in the 2012 National Rule, and the deficient BART analyses for four facilities that were not electric generating units, which prompted the partial disapproval in the 2012 Regional Rule. EPA never deemed inadequate any other aspect of Louisiana's long-term strategy. Therefore, when EPA issued a partial limited approval in the 2012 Regional Rule, the rest of Louisiana's 2008 reasonable progress analysis and long-term strategy submission was incorporated into the approved SIP.

Environmental Petitioners interpret one particular aspect of the limited (as opposed to the partial) disapproval—Louisiana's reliance on CAIR to satisfy the reasonable progress requirements for electric generating units—as applying more broadly than EPA intended. But EPA's limited disapproval in the 2012 National

Rule was narrow in scope. The only deficiency it identified in Louisiana's reasonable progress analysis and long-term strategy was Louisiana's reliance on CAIR to satisfy the control measure requirements for reasonable progress sources that were electric generating units.[19] However, Louisiana's 2008 regional haze SIP *also* included a detailed analysis of which electric generating units might be subject to controls under reasonable progress. Index #9 at 57–60, App763-66. As a result of that analysis, Louisiana identified only one source, Big Cajun II, that might have been required to install controls to make reasonable progress. *Id.* Louisiana then went on to conclude that the reductions expected to be achieved at Big Cajun II through CAIR would satisfy the reasonable progress requirement, and therefore no further controls were necessary. *Id.*

EPA's limited disapproval of Louisiana's 2008 regional haze SIP was limited to that final step of the reasonable progress analysis—the reliance on CAIR to satisfy the reasonable progress requirement for Big Cajun II, 77 Fed. Reg, 33,642 (June 7, 2012). So the earlier step of selecting reasonable progress sources was approved as part of the 2012 Regional Rule. 77 Fed. Reg. 39,425. EPA

[19] As explained *supra* at 11, any emission limitations determined necessary pursuant to the reasonable progress analysis also become part of the long-term strategy. Thus, to the extent that Environmental Petitioners challenge the sufficiency of Louisiana's reasonable progress analysis, they also challenge the sufficiency of the State's long-term strategy.

received no comments regarding Louisiana's analysis of which sources might be required to install additional reasonable progress controls, or on the State's resulting decision to consider reasonable progress controls only at Big Cajun II—and not at any other EGUs, such as Dolet Hills—during the rulemaking process for the 2012 Regional Rule. Thus, the State's decision was approved by EPA and incorporated into Louisiana's SIP in 2012.

It is this predicate step—the State's choice of reasonable progress sources to assess for potential control measures—that Environmental Petitioners now untimely seek to litigate as inadequate. The Act's judicial review provision, 42 U.S.C. § 7607(b)(1), generally restricts challenges to EPA actions to the 60-day period immediately following their publication in the *Federal Register*. The only alternative window Congress allowed for later challenges applies narrowly to claims that are based "solely" on grounds that arose after the normally applicable 60-day window closed—and only allows such challenges in the 60-day window immediately following the later-arising grounds. *Id.* § 7607(b)(1). Outside of those 60-day windows, the Court is "powerless" to address the petition. *See Medical Waste Inst. & Energy Recovery Council v. EPA*, 645 F.3d 420, 427 (D.C. Cir. 2011) ("The filing period in the Clean Air Act 'is jurisdictional in nature'; if the petitioners have failed to comply with it, [the courts] are powerless to address their claim." (internal citation omitted)). Several other circuits have confirmed

that, regardless of how a litigant frames its claim, if that claim's practical objective is to nullify a final action by the EPA, the claim is subject to the jurisdictional limitations of § 7607(b)(1). *See, e.g.*, *Cal. Dump Truck Owners Ass'n v. Nichols*, 784 F.3d 500, 505–07 (9th Cir. 2015) (summarizing case law from the Second, Third, Fourth, and Eighth Circuits and concluding that the scope of § 7607(b)(1) extends to claims that indirectly challenge a SIP approval by EPA).

The practical objective of Environmental Petitioners' claim is to nullify EPA's 2012 decision approving Louisiana's selection of reasonable progress sources and the State's conclusion that only Big Cajun II needed to be assessed for potential additional controls. Environmental Petitioners could have challenged the 2012 Regional Rule when EPA issued it in 2012. EPA received no comments regarding Louisiana's decision to conduct a reasonable progress analysis solely for Big Cajun II, and approved that decision when it finalized the 2012 Regional Rule. To allow Environmental Petitioners to attack that decision now, in a challenge to EPA's 2017 rulemaking regarding distinct aspects of Louisiana's regional haze program, would not only obviate the jurisdictional filing deadline, but also require the Court to undertake the unwieldy task of indirectly considering the merits of a

prior regulatory decision without the benefit of a meaningful administrative record tailored to the specific decision at issue here.[20]

While some courts outside the Fifth Circuit, notably the D.C. Circuit,[21] recognize a narrow exception to the 60-day time limit in instances where EPA has affirmatively "re-opened" a question for purposes of judicial review by "either explicitly or implicitly reconsider[ing]" it in a subsequent rulemaking, *West Virginia v. EPA*, 362 F.3d 861, 872 (D.C. Cir. 2004), EPA in its 2017 Final Rule approving Louisiana's revised BART submission did neither with respect to its

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[20] The record underlying the 2012 Regional Rule does not provide extensive detail on EPA's approval specifically of Louisiana's choice of reasonable progress sources and decision not to include other non-BART EGUs such as Dolet Hills. However, that is in part due to Petitioners' failure to comment on those issues, which waived their ability to challenge them even within the 60-day window of the finalization of that rule. *Cf. Cal. Dump Truck Owners Ass'n*, 784 F.3d at 510 n.11 (even where the record does not indicate clearly that EPA explicitly considered an issue, challenge is subject to limitations of section 307).

[21] The Sixth Circuit has cited approvingly to D.C. Circuit case law outlining the reopener exception, but applied it in an appropriately narrow manner, refusing to make an exception where "there [was] no indication that the EPA was reconsidering any underlying regulations." *Ohio Pub. Interest Research Grp., Inc. v. Whitman*, 386 F.3d 792, 799–800 (6th Cir. 2004). The Tenth Circuit, while expressly declining to decide whether it would adopt the reopener doctrine, has held that in any event the doctrine would nonetheless not apply in the unusual circumstances presented there. *Utah ex rel. Utah Dep't of Envtl. Quality, Div. of Air Quality v. EPA*, 750 F.3d 1182, 1185–86 (10th Cir. 2014) (reopener doctrine would not apply where EPA published a notice attempting to correct an administrative error in a recent decision but did not suggest that it had examined or would examine the substance of that decision).

2012 approval of Louisiana's 2008 decision not to assess certain electric generating units including Dolet Hills for potential reasonable progress controls. Nothing in the 2017 Proposed Rule addressed changing—or not changing, for that matter—Louisiana's selection of reasonable progress sources.[22] And Petitioners' comments on EPA's 2017 proposed approval of Louisiana's SIP revision, even if read to suggest that EPA should revisit its prior, 2012 action approving the selection of reasonable progress sources, could not have enlarged the scope of EPA's 2017 rulemaking.

In any event, as even the D.C. Circuit has recognized, the reopener doctrine "is not a license for bootstrap procedures by which petitioners can comment on matters other than those actually at issue, goad an agency into a reply, and then sue on the grounds that the agency had re-opened the issue." *West Virginia*, 362 F.3d at 872. Nor did EPA's response here suggest any intent to broaden the scope of the rulemaking in response to these comments. *See United Transp. Union-Ill. Legislative Bd. v. Surface Transp. Bd.*, 132 F.3d 71, 76 (D.C. Cir. 1998) (dismissing as untimely a challenge to pre-existing rules referred to in later

[22] Nor could it be argued that EPA's action constructively reopened the long-settled issue by effecting a "sea change" that would "significantly alter[] the stakes of judicial review." *See NRDC v. EPA*, 571 F.3d 1245, 1266 (D.C. Cir. 2009) (internal quotation marks omitted) (holding that there was no constructive reopening even where a regulation effected a minor change to a prior regulation).

rulemaking in response to unsolicited comments); *Kennecott Utah Copper Corp. v. U.S. Dep't of Interior*, 88 F.3d 1191, 1226 (D.C. Cir. 1996) (holding that challenge to a pre-existing regulatory definition was time-barred where it was made in an unsolicited comment in a subsequent rulemaking). Even if EPA's approval of Louisiana's reasonable progress analysis and long-term strategy could be read as a reaffirmation of EPA's prior approval of Louisiana's selection of reasonable progress sources, such a reaffirmation of a prior position cannot create a new opportunity for judicial review. *See Nat'l Propane Gas Ass'n v. U.S. Dep't of Transp.*, 43 F. Supp. 2d 665, 685 n.17 (N.D. Tex. 1999) (citing *Kennecott*, 88 F.3d at 1213).

2. Louisiana's SIP revision need not have revisited its entire prior reasonable progress analysis to be approvable by EPA.

Even if this Court were to decide that it has jurisdiction to hear Environmental Petitioners' claim regarding Louisiana's reasonable progress analysis and long-term strategy, and even if that the issue has not been waived, the argument is without merit. In support, Petitioners point to a sole sentence included in the response to comments section of the final 2012 Regional Rule. *See* Env. Br. 52. In response to a comment criticizing EPA for partially approving the regional haze SIP without considering what Louisiana would have to do to remedy the

CAIR-related deficiencies associated with the limited disapproval in the 2012 National Rule, EPA stated:

> We have evaluated the LA RH SIP submittal as a whole and at this time we are taking final action on all elements of the LA RH SIP submittal that were not addressed in the national Better-than-BART rule. *Louisiana must consider whether EGUs previously covered by the CAIR, whether subject to BART or not, should be controlled to ensure reasonable progress to meet the State's long-term strategies.* However, insofar as Louisiana's LTS and RPGs are affected by the remand of CAIR, those issues are addressed in the national Better-than-BART rulemaking and are outside the scope of this action on the remainder of the LA RH SIP.

77 Fed. Reg. at 39,427 (emphasis added). Petitioners would have this Court interpret the italicized sentence to require Louisiana to revisit its entire reasonable progress analysis, including the stage in which the State selected only Big Cajun II as a source that might be subject to additional reasonable progress controls.[23] But EPA did not make such a sweeping and consequential decision in a single ambiguous sentence deep in the response to comments section. As EPA emphasized in the sentences both before and after the one repeatedly emphasized by Environmental Petitioners, its limited disapproval of Louisiana's regional haze plan, finalized in the 2012 National Rule, applied *only* to the SIP's reliance on CAIR. *Id.* To interpret one sentence out of this context—to transform that narrow

[23] EPA's use of the plural "EGUs" in the 2012 Regional Rule is not inconsistent with an intent to reference only Big Cajun II. Big Cajun II is a facility comprised of more than one electric generating unit.

disapproval to an invalidation of the entire reasonable progress analysis starting with the initial choice of sources to further evaluate for reasonable progress—runs contrary to both common sense and canons of interpretation. *Cf. Whitman v. Am. Trucking Ass'ns*, 531 U.S. 457, 468 (2001) ("Congress, we have held, does not alter the fundamental details of a regulatory scheme in vague terms or ancillary provisions—it does not, one might say, hide elephants in mouseholes."). Environmental Petitioners' reading of the sentence in question would have required Louisiana to restart its entire reasonable progress analysis—a significant undertaking—based on a single vague statement that was not included in the proposed rule and that cannot reasonably bear the weight Petitioners place on it.[24]

3. Environmental Petitioners had an opportunity to comment on EPA's approval of the elements of Louisiana's reasonable progress analysis and long-term strategy with which they take issue.

Similarly unavailing is Environmental Petitioners' argument that EPA's approval of Louisiana's long-term strategy suffers from a fatal procedural defect.

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[24] The logical reason for EPA's fleeting reference in its response to that particular comment on the 2012 Regional rule is that the Agency was observing that, to the extent Louisiana had relied on CAIR as an emission reduction requirement for sources it had found were subject to BART and to sources that it had selected for reasonable progress, the State would have to reassess both those types of sources at the control determination step. 77 Fed. Reg. at 39,427. To "consider whether EGUs . . . should be controlled," in other words, means just that—not, as Environmental Petitioners would gloss it, to consider *which* electric generating units would be subjected to the consideration *whether* to require controls.

As explained above, Petitioners had an opportunity to comment on the relevant action—EPA's partial approval of Louisiana's reasonable progress analysis and long-term strategy—in 2012 when it was proposed and finalized. They failed to do so as to EPA's approval of Louisiana's choice to consider only Big Cajun II for potential reasonable progress controls. Petitioners now argue that they should have had an opportunity to comment on EPA's rationale for approving Louisiana's reasonable progress analysis and long-term strategy. However, the issue with which they are actually concerned—Louisiana's decision not to select Dolet Hills as a reasonable progress source—was settled in 2012. As explained above, EPA did not reopen it in approving the SIP submissions at issue here.

Even if EPA had, somehow, reopened the issue of Louisiana's selection of reasonable progress sources, Environmental Petitioners' procedural arguments ignore that they, in fact, commented on the issue of Louisiana's reasonable progress analysis and long-term strategy in the 2017 rulemaking. *See* Index #71 at 7–10, App3510-13. EPA provided a response in its Final Rule, 82 Fed. Reg. at 60,539–40, and later supplemented its rationale in its denial of Environmental Petitioners' Reconsideration Petition. In responding to this petition, EPA explained how its 2012 assessment of Louisiana's 2008 SIP regional haze submission and its component parts relates to its 2017 rulemaking.

Reconsideration Response at 4–7. Petitioners did not challenge EPA's denial of the Reconsideration Petition and therefore it should be the last word on the matter.

III. THE COURT SHOULD DENY INDUSTRY PETITIONERS' PETITION FOR REVIEW.

In contrast to Environmental Petitioners' central theme that EPA's Final Rule does not go far enough in addressing regional haze, Industry Petitioners' refrain is that EPA's Final Rule goes too far in approving Louisiana's "subject-to-BART" conclusions for the Nelson and Brame units. Contrary to Environmental Petitioners, Industry is not challenging the emission limits set for those two units in the State's BART determination. Instead, focusing their challenge on step two of the BART analysis, Industry Petitioners' arguments strike at the State's discretion to determine that certain BART-eligible sources should be "subject to BART." Industry's legal and technical challenges to the EPA-recommended modeling (CALPUFF) on which Louisiana relied to conclude that Nelson and Brame should be "subject to BART" have no basis in the statute and are contrary to EPA's BART Guidelines. Further there is not merit to Industry's technical attacks on the CAMx modeling EPA provided to Louisiana and that the State included in its 2017 SIP revisions. Overall, EPA's approval of the State's "subject-to-BART" analysis is reasonable and supported by substantial evidence.

A. EPA Reasonably Approved Louisiana's Decision to Include the Nelson and Brame Units as "Subject-to-BART" Based on CALPUFF Modeling.

Industry Petitioners attack EPA's approval of Louisiana's decision to include the Nelson and Brame units as "subject-to-BART" based on those units' modeled visibility impacts using the CALPUFF modeling. These challenges are, in reality, challenges to 13-year-old policy choices embedded in the BART Guidelines themselves. The Guidelines recommend that States use CALPUFF as a "conservative" screening model for "subject-to-BART" determinations, which is used "solely to determine if a closer look at the source is warranted." 70 Fed. Reg. at 39,126; *see supra* at 18. The CALPUFF modeling on which the State relied did what it is designed to do: analyze the worst-case impacts a source's emissions could have (across a range of meteorological conditions) on visibility. Further, the model's limitations (including those with respect to distance and the use of simplified chemistry) about which Industry Petitioners complain were known by EPA even before it promulgated the BART Guidelines in 2005 and have been addressed by EPA in the Guidelines. 70 Fed. Reg. at 39,123–26. Those limitations do not undercut Louisiana's reliance on CALPUFF here: "[A] model is meant to simplify reality in order to make it tractable" and, thus, "it is no criticism of a model that it does not fit every application perfectly." *Ass'n of Battery Recyclers, Inc. v. EPA*, 208 F.3d 1047, 1063 (D.C. Cir. 2000) (citations and

internal quotations marks omitted); *accord BCCA Appeal Grp.*, 355 F.3d at 834. The Court therefore should reject Industry's arguments about "shortcomings" in the CALPUFF modeling. These at best represent grievances that the CALPUFF model functioned as it was intended to function.

1. EPA reasonably approved the State's use of CALPUFF at distances greater than 300 kilometers based on additional considerations for the Brame and Nelson sources.

Industry Petitioners misrepresent the BART Guidelines and evidence in the administrative record. They argue EPA should not have approved Louisiana's use of the CALPUFF modeling at distances greater than 300 kilometers. Contrary to Industry Petitioners' statements, EPA has *never* determined that (1) CALPUFF should not be used to model visibility impacts more than 300 kilometers from the emissions source, Principal Brief of Petitioner Entergy Louisiana, LLC and Intervenor Cleco Power LLC ("Industry Br."), 22; (2) CALPUFF has an "inability to reliably predict visibility impacts at locations more than 300 kilometers" away, *id.* 16; or (3) CALPUFF is "unreliable" and "does not perform 'in a reasonable manner'" at distances greater than 300 kilometers. *Id.* 22, 24. Such statements are hyperbolic paraphrasing of far more nuanced technical discussions or statements EPA made in actions that have no applicability to the use of CALPUFF in the circumstances presented here.

For instance, in 2017, EPA decided to remove CALPUFF "as a preferred model" in the Guidelines on Air Quality Models for certain applications under other CAA programs that are not relevant here. 82 Fed. Reg. at 5195.[25] Industry Petitioners neglect to mention that this 2017 action had *no* impact on the use of CALPUFF for making "subject-to-BART" determinations and did not reopen that issue. In fact, EPA stated that "this final action does not affect the EPA's recommendation that states use CALPUFF to determine the applicability and level of best available retrofit technology in regional haze implementation plans." *Id.* at 5196; *see* Index #5.20 at 32, App167 (EPA's 2017 action "do[es] not alter the original status of CALPUFF as discussed and approved for use in the 2005 BART guidelines"). Thus, the removal of CALPUFF as a preferred model for other air quality modeling applications did not remove CALPUFF as an appropriate model under the BART Guidelines, which still recommend that States use CALPUFF for their "subject-to-BART" determinations. 40 C.F.R. Pt. 51, App. Y, III.A.3.

The record here further contradicts Industry Petitioners' arguments about distance limitations:

> The SIP submittal states that Appendix Y states that CALPUFF should be used for distances less than 300 [kilometers] and CAMx is

[25] The Guidelines on Air Quality Models address a variety of uses for models (models to use, model inputs, approval of alternate models, etc.) under the CAA for purposes other than regional haze analysis, including permitting and non-haze SIP development.

> approved for distances greater than 300 [kilometers]. This statement is incorrect. The BART Guidelines do not discuss a distance limitation of 300 [kilometers] for CALPUFF or approve the use of CAMx for specific situations.

Index #5.89 at 17, App644; *see* Index #5.20 at 38, App173 (although "EPA has a higher confidence level with results within 300 [kilometers]," "that does not preclude the use of model results for sources beyond the 300 [kilometer] range with some additional consideration"). Indeed, "EPA has indicated historically that the use of CALPUFF was generally acceptable at 300 [kilometers] or greater *for larger emissions sources with elevated stacks*." Index #5.20 at 38, App173; *see id.* at 29, App164 (EPA and Federal Land Managers "have utilized CALPUFF results in a number of different situations when the range was between 300-450 [kilometers] or more"); *see* 82 Fed. Reg. at 60,525 (same). The Nelson and Brame facilities are just such large emission sources. 82 Fed. Reg. at 60,525 (those sources that are "far away from Class I areas, yet hav[ing] high enough emissions that they may significantly impact visibility at Class I areas in Louisiana and surrounding states").

Industry Petitioners do not gain any traction with their argument by comparing other regional haze actions where CALPUFF modeling was not used for distances beyond 300 kilometers. Industry Br. 24 (citing regional haze actions for Arkansas, New Mexico, Texas, and Oklahoma). For example, in the New

Mexico and Arkansas actions, there were several Class I areas *within 300 kilometers* of the coal-fired electric generating units and, thus, there was no need to apply CALPUFF modeling to assess visibility impacts at Class I areas farther away. *See* 81 Fed. Reg. 66,332, 66,394 (Sept. 27, 2016); 79 Fed. Reg. 60,978, 60,983 (Oct. 9, 2014). Also, EPA's use of the CAMx model rather than CALPUFF in the Texas and Oklahoma regional haze actions was to assess "reasonable progress"—not to conduct source-specific screening analysis for a "subject-to-BART" determination. 81 Fed. Reg. at 66,393–94. In fact, in the Texas action, CALPUFF modeling was used to screen BART-eligible sources for the "subject-to-BART" determination even though those sources were 400 to 614 kilometers away from the Class I area. 82 Fed. Reg. at 60,525 n.39 (citing 72 Fed. Reg. 74,818 (Dec. 16, 2014), 81 Fed. Reg. 296 (Jan. 5, 2016)). There are other examples of regional haze actions where CALPUFF was used for distances greater than 300 kilometers. *See* 82 Fed. Reg. at 60,525 n.39 (citing regional haze actions in South Dakota and Nebraska where CALPUFF was used at distances greater than 300 kilometers).[26] For example, in the Nebraska regional haze action, CALPUFF

[26] Industry Petitioners' attempt to distinguish these other regional haze actions is unavailing. Industry Br. 26 n.11. The fact that the South Dakota and Nebraska actions "pre-date" EPA's 2017 action to remove CALPUFF as a preferred model for other air quality modeling is of no import because, as discussed, that action by EPA did not affect the use of CALPUFF to make BART determinations.

modeling was used to make "subject-to-BART" determinations for sources that were 300-600 kilometers or more from the Class I areas. *See id.* EPA pointed out that "the general community has utilized CALPUFF in the 300–450 [kilometer] range many times . . . ." Index #5.20 at 30, App165. Indeed, "[t]he CALPUFF model, as recommended in the BART guidelines, has been used for almost every single-source BART analysis in the country . . . ." *Id.* at 32, App167.

EPA has noted that at longer distances, it may be appropriate to consider other factors in support of the use of CALPUFF modeling. Industry Petitioners are incorrect that EPA never undertook the "additional consideration of relevant issues such as stack height, sizes of emissions, etc." in reviewing the CALPUFF modeling for Nelson and Brame. Industry Br. 25-26. First, EPA explicitly stated that Nelson and Brame are "larger emissions sources with elevated stacks." Index #5.20 at 38, App173. Such factors have historically led EPA, just as it did here, to find "that use of CALPUFF was generally acceptable at 300 km or greater. . . ." *Id.* There is no question that these are large emission sources. Indeed, each of those power plants has a capacity in excess of 750 megawatts, 82 Fed. Reg. at 60,525–26,[27] and each is responsible for between ten and twenty percent of the

[27] Nelson has three BART-eligible electric generating units that roughly have a combined 1200 megawatts of production capacity. 82 Fed. Reg. at 60,522, 60,533. Brame has two BART-eligible electric generating units with a combined output of 963 megawatts. *Id.* at 22,944.

entire Louisiana power sector's reported emissions of SO_2 and NO_X. *See generally* Index #5.31 (unit rows for years 2000–2004 (column F) and SO_2 (tons) (column L)), App528-43; *see id.* App530 (Nelson); *id.* App533-34 (Brame). For instance, in the 2000–2004 baseline period used in the Final Rule to assess these source's visibility impacts, Nelson's units 4 and 6 emitted 82,836 tons of SO_2, or roughly 19 percent of the total from power plants in Louisiana in that period; Brame's units 1 and 2 emitted 69,852 tons, or 16 percent of the total. *See id.*

Second, these large sources had modeled visibility impacts that exceeded 1.0 deciview—the threshold EPA has applied to conclude that a source not only contributes, but in fact *causes* visibility impairment perceptible to the human eye. 70 Fed. Reg. at 39,120. In other words, these sources' impacts are not border-line cases, contrary to Industry Petitioners' belief. Industry Br. 26 (arguing EPA never explains why the modeled impacts exceeding 1.0 deciview "can overcome the model's shortcomings"). In promulgating the BART Guidelines, EPA explained that large sources, like Nelson and Brame, are likely to have modeled impacts exceeding the 1.0 deciview threshold:

> Based on our analysis of the power plants covered by the guidelines, we believe that all but a handful of these plants have impacts of greater than 1.0 deciview on one or more Class I areas. In fact, we anticipate that most of these plants are predicted to have much higher maximum impacts. Because of the scale of the predicted impacts from these sources, CALPUFF is an appropriate or a reasonable

> application to determine whether such a facility can reasonably be anticipated to cause or contribute to any impairment of visibility.

70 Fed. Reg. at 39,123.

Here, the CALPUFF-modeled impacts for both Nelson and Brame exceeded 1.0 deciview at each of the impacted Class I areas (Breton and Caney Creek). In Nelson's case, impacts as high as 1.25 deciviews were projected, and in Brame's case, as high as 1.2 deciviews. Index #5.89 at 29, 34, App656, 661. Indeed, Entergy's own CALPUFF modeling, though flawed, projected Nelson's maximum impact at Breton Island to be 0.79 deciview, thereby exceeding the 0.5 deciview "contribution" threshold. *Id.* at 33, App660. Given the scale of exceedance and the fact that Nelson and Brame are large emission sources with elevated stacks, these factors weighed in favor of Louisiana's subject-to-BART determination relying on CALPUFF modeling, despite the distances involved.

Finally, the CAMx modeling EPA performed further supports the reliability of the CALPUFF modeling results: "[EPA's] CAMx modeling supports the determination made by [Louisiana] that Entergy Nelson and Cleco Brame cause or contribute to visibility impairment at nearby Class I areas and are therefore subject to BART." 82 Fed. Reg. at 60,525–26. The CAMx modeling showed visibility impairment impacts for Nelson and Brame as high as 2.22 deciviews and 2.83 deciviews, respectively at Caney Creek, and for the 365 days modeled with CAMx

each facility had at least 30 days with modeled impacts over the 0.5 deciview threshold at that Class I area. *Id.* at 60,526.

For these reasons, Industry's arguments concerning alleged distance limitations of the CALPUFF modeling are misplaced and contrary to the record. As this Court has previously noted in upholding a previous SIP approval based on modeling, if the model "performed well . . . EPA's acceptance of [the State's] modeling [is] neither arbitrary nor capricious." *BCCA Appeal Grp.*, 355 F.3d at 834.

2. CALPUFF's Use of Simplified Assumptions Has Been Known by EPA and Reasonably Addressed.

EPA has "undoubted power to use predictive models," *West Virginia*, 362 F.3d at 868 (quotation marks omitted), and issues concerning modeling are a "prime example" of the kind of technical judgment that warrants deference to EPA. *Appalachian Power Co. v. EPA*, 135 F.3d 791, 802 (D.C. Cir. 1998). Where the agency offers a "reasonable explanation for the model's discrepancies," and determined it was nevertheless reliable for the regulatory purpose it served, EPA's acceptance of the State's modeling choice is "neither arbitrary nor capricious." *BCCA Appeal Grp.*, 355 F.3d at 834. "There is a presumption of regularity to the EPA's choice of analytical methodology, so challenging parties must overcome a 'considerable burden.'" *Id.* at 832 (citing *Am. Petroleum Inst. v. EPA*, 787 F.2d

965, 983 (5th Cir. 1986)). Industry Petitioners have failed to overcome that considerable burden in arguing that CALPUFF employs overly simplistic assumptions that overestimated the visibility impacts of the Brame and Nelson facilities and render the results unreliable. Industry Br. 27–31.

EPA has long recognized that CALPUFF's chemistry is simplified and tends to be conservative, *i.e.*, overestimates visibility impacts. *See* 70 Fed. Reg. at 39,123 (EPA "understand[s] the concerns of commenters that the chemistry modules of the CALPUFF model are less advanced than some of the more recent atmospheric chemistry simulations"). This very attribute of the model, however, represents a deliberate policy choice of the Guidelines: the screening analysis at this step of the process is *intended* to capture "maximum" or "worst case" potential impacts of a source on visibility. 70 Fed. Reg. at 39,123, 39,126. EPA explained here that the modeling is for a "worst case assessment" that includes "simplified chemistry" assumptions, in order to estimate "maximum anticipated impact." Index #5.20 at 31, App166. The goal is not to estimate conditions "for a specific place at a specific time," but rather to create "a snapshot of the worst case visibility impacts on a day when modeled meteorological conditions are *most conducive* to formation and transport of visibility impairing pollutants . . . ." *Id.* at 31–32, App166-67. (emphasis added).

Further, EPA has recognized the limitations in the model, evaluated them against its purpose, and recommended appropriate protocols to ensure the model's results are appropriately interpreted. *See* 70 Fed. Reg. at 39,123. Thus, to account for simplified assumptions in the model, the BART Guidelines recommend (as was done here) the use of the 98th percentile visibility impairment rather than the highest daily impact, which is "roughly equivalent to the 8th highest day" of visibility impacts. Index #5.89 at 12, App639. Using the 98th percentile will "exclude roughly 7 days per year from consideration," which will "minimiz[e] the likelihood that the highest modeled visibility impacts might be caused by unusual meteorology or conservative assumptions in the model." 70 Fed. Reg. at 39,121. Thus, States reasonably can use the 98th percentile of CALPUFF modeling results to compare against the "contribution" threshold (here 0.5 deciview) to determine if a source should be "subject to BART." *Id.*

EPA "made the decision to consider the less conservative 98th percentile primarily because the chemistry modules in the CALPUFF model are simplified and likely to provide conservative (higher) results for peak impacts." Index #5.89 at 12, App639. This provides a "more robust approach that does not give undue weight to the extreme tail of the distribution." *Id.* at 30–31, n. 94, App657–58; *see* 40 C.F.R. Pt. 51, App. Y, III.3. Simply put, EPA was "confident" in 2005 when it issued the BART Guidelines and remains confident today that "CALPUFF

distinguishes, comparatively, the relative contributions from sources such that the differences in source configurations, sizes, emission rates, and visibility impacts are well-reflected on the model results." 70 Fed. Reg. at 39,122. Thus, EPA

> disagree[d] with the commenter's general statement that there is an acknowledged over-prediction of the CALPUFF model or an acknowledged over-estimation bias, and that the actual visibility impacts from the BART sources are lower.

Index #5.20 at 31, App166.

Furthermore, EPA performed a study of more sophisticated models, including CAMx, with CALPUFF in 2012 and confirmed that CALPUFF did not demonstrate a consistent bias of either under-predicting or over-predicting impacts at long distances greater than 300 kilometers, further supporting the use of CALPUFF for screening. *See* Index #5.20 at 31, App166; *see also* Index #5.21, App201-343.

EPA has thoroughly explained and addressed the simplified assumptions in the CALPUFF model, and Industry Petitioners have failed to overcome their "considerable burden" to overcome the presumption of regularity that EPA's long-standing recommended modeling approach should be afforded. *See BCCA Appeal Grp.*, 355 F.3d at 834. The fact that Industry Petitioners are dissatisfied with the results of this approach is no ground for rejecting a model that has been used under the BART Guidelines for thirteen years.

3. Louisiana's reliance on CALPUFF modeling to estimate SO_2 and NO_x visibility impacts was reasonable and consistent with the BART Guidelines.

Industry Petitioner takes issue with the use of CALPUFF to simulate the "transformation of SO_2 and NO_x emissions into visibility-impairing sulfates and nitrates," Industry Br. 28. These arguments—all of which again represent an attack on the long-standing use of CALPUFF under the BART Guidelines—can be disposed of in brief fashion.

First, Industry Petitioners inappropriately rely on EPA's 2017 action in removing CALPUFF as a preferred model in a different appendix for use in long-range transport assessments. *Id.* We explained above why this argument has no relevance. EPA made clear that the removal of CALPUFF as a preferred model for other assessments "does not affect the EPA's recommendation that states use CALPUFF" to make the "subject-to-BART" determination. 82 Fed. Reg. at 5196.

Second, EPA disagrees with Industry's assertion, Industry Br. 38–39, that CALPUFF's bias always leans toward over-estimation when compared to photochemical grid models like CAMx when it comes to modeling SO_2 and NO_x.

> The CALPUFF model can both under-predict and over-predict visibility impacts when compared to photochemical grid model[s]. For example, [one report] found that CALPUFF predicted highest 24-hr nitrate and sulfate concentrations *lower* than those predicted by the CAMx photochemical grid model in some areas within the modeling domain.

Index #5.20 at 31, App166 (emphasis added). Indeed, the CALPUFF model frequently predicted *lower* nitrate concentrations compared to the CAMx photochemical grid model, which has a much more rigorous treatment of photochemical reactions. Further, EPA recognized the limitations in the model and explained why CALPUFF is nonetheless fit for the screening purpose it serves here, with appropriate consideration of relevant factors. *See* 70 Fed. Reg. at 39,123.

Industry Petitioners ignore these explanations by EPA. They instead focus on background variables that could cause their SO_2 and NO_x emissions to appear less impactful. Industry Br. 29–30.[28] Industry, however, "cannot undermine" EPA's model simply by "pointing to variables . . . that might conceivably have pulled the analysis's sting.'" *Appalachian Power v. EPA*, 135 F.3d at 805 (internal quotation marks and citation omitted). These arguments ignore, once again, the purpose of the CALPUFF modeling at this stage-to provide a worst-case screening assessment. That purpose is hardly served by looking only at average or typical background conditions.

[28] Industry's reliance on statements from the Central Regional Air Planning Association ("CENRAP"), Industry Br. 31, also is refuted by EPA's statements above.

Third, (based on faulty modeling of their own) Industry Petitioners incorrectly claim "real-world" effects of these alleged "over-estimations." Industry Br. 30. As an initial matter, the CAMx modeling to which Industry cites was invalid under the BART Guidelines. *See* Index #22.23 at 27–33, App3389-95. Industry also failed to supply the underlying data files, so the figures on which they rely are highly questionable. Moreover, Industry's comparison of its CAMx modeling results (Industry Br. 30) to CALPUFF is specious. Their CAMx modeling shows nitrate impact as a percentage of overall visibility impairment from *all* emission sources impacting the Breton Class I area for the twenty percent worst days. Index #21.85 at 2-3, App3246. The CALPUFF modeling, by contrast, looked at nitrate impact as a percentage of the modeled visibility impairment only from emissions from the handful of sources that were actually modeled in CALPUFF. *See generally* Index #5.20 at 29–32, App164-67. Thus, Industry Petitioners' comparison is one of apples to oranges. It compares nitrate impacts as a percentage of visibility impairment from *all* sources to nitrate impacts as a percentage of visibility impairment from a small number of sources. In short, the numbers Industry Petitioners invent, Industry Br. 30, have no real-world meaning.

Finally, EPA repeatedly has responded to and rejected Industry Petitioners' claim of "uncertainties" about CALPUFF's modeling of visibility impairment in other regional haze actions. All of those discussions are incorporated into the

record for this Louisiana SIP approval. *See* Index #5.20 at 29 n.85, App164 (citing similar concerns raised by industry and rejected by EPA in the Arkansas and Texas FIPs).[29] EPA has not failed to address deficiencies in CALPUFF, as Industry Petitioners argue. *See* Industry Br. 31. EPA fully accounted for the model's limitations in the BART Guidelines and developed appropriate protocols for CALPUFF, which were followed in this SIP action.

4. EPA adequately responded to comments claiming a "margin of error" in CALPUFF's modeling.

Industry Petitioners mount a procedural challenge to EPA's response to comments about a "margin of error" in CALPUFF's results for Nelson's visibility impairment, Industry Br. 32–34,[30] but their argument ignores EPA's fulsome response and relies on a distinguishable case.

In responding to comments, EPA explained that the Agency had responded to similar comments at length concerning a "margin of error" analysis performed

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[29] The Arkansas and Texas FIPs and associated responses to comments are included in this record at Index #5.32, App546-91, and #21.21, App1832-2754, respectively. *See, e.g.,* Index #5.32, at 390–92, App553-55 (noting that despite its "limited chemistry," CALPUFF is appropriate for use "as a screening tool" for individual sources, even in the context of "reasonable progress" analysis).

[30] Industry Petitioners do not make any argument that a "margin of error" analysis was required under the BART Guidelines or that failure to conduct such an analysis was inconsistent with the Guidelines. Their only complaint is a procedural one with respect to the adequacy of EPA's response to comments about the "margin of error."

by Entergy in the Arkansas regional haze action. Index #5.20 at 41 n.143, App176 (citing Arkansas FIP, 81 Fed. Reg. at 66,355–413 and associated Response to Comments Document, Section 7.d. "Margin of Error in CALPUFF modeling"). Industry Petitioners are incorrect that the Arkansas Response to Comments Document is not in the record for this Final Rule. *See supra* n.29. EPA thereby incorporated its response to the "margin of error" comments in the Arkansas action into the Final Rule.

As EPA explained, "[t]he notion of a calculated 'margin of error' is not part of any modeling guidance and has no legal or regulatory basis or applicability here." Index #5.32 at 409, App572. Thus, "[w]hether or not the modeled visibility impacts . . . lie below this erroneous, calculated 'margin of error' is immaterial to any assessment of whether or not the visibility impairment . . . can reasonably be anticipated to occur." *Id.* The CALPUFF modeling for the "subject-to-BART" determination "is a worst case assessment, utilizing maximum emissions," certain assumptions, and simplified chemistry modeled over several years. Index #5.32 at 412, App575. "The goal of this modeling is to estimate the maximum anticipated impact from the source in the vicinity of the Class I area . . . and not to provide an estimate of downwind concentrations or visibility conditions for a specific place at a specific time." *Id.* Thus,

> [t]he CALPUFF modeling following the BART guidelines and using the 98th percentile value does not lend itself to model performance evaluations of the type suggested by the commenters . . . comparing measured visibility impairment at a specific time and place to modeled impairment at that same time and place to derive some "margin of error" in the modeled estimates.

81 Fed. Reg. at 66,399.

Further, the proposed "margin of error" analysis Petitioners presented in their comments was analytically indefensible. They proposed to mix CALPUFF modeling results with CAMx modeling results and compare them to monitored data, generating a remarkable 1.25-to-1.38 deciview so-called margin of error. Index #5.20 at 40–41, App175-76. EPA rejected this same flawed methodology in its Arkansas action for, among other things: inappropriately combining results from two different models; failing to consider uncertainty in the "background" values that could dominate the results; failing to provide underlying data for verification; making flawed modeled-versus-measured visibility comparisons; giving undue weight to values at the extreme tail of distribution of the model results; and failing to follow guidance on conducting proper model-performance evaluations. *See id.* at 41, App176; Index #5.32 at 418-28, App581-91.

EPA also adequately responded to Industry Petitioners' reliance on *National Parks Conservation Association v. EPA*, 788 F.3d 1134 (9th Cir. 2015). Industry Br. 32. Industry Petitioners repeatedly have mischaracterized the Ninth Circuit's

decision concerning the "margin of error" of the model. *See* 81 Fed. Reg. at 66,400; Index #5.20 at 41, App176. The Ninth Circuit's ruling in *National Parks* was limited to EPA's procedural error in failing to respond to a comment about an *alleged* CALPUFF margin of error. 788 F.3d at 1146–47; *see* Index #5.20 at 41, App176.[31] Thus, the Ninth Circuit did not require EPA to demonstrate why modeled visibility improvements for the BART Determination (step three of the three-step process, not step two, the "subject-to-BART" step at issue here) were within the model's margin of error. Industry Br. 32. Nor did the court rule on any specific issue related to CALPUFF, let alone on the issue of whether EPA had to consider "margin of error" in using CALPUFF to make the "subject-to-BART" determination. *See* Index #5.20 at 41, App176. Consistent with *National Parks*, EPA in the Final Rule responded to comments about the alleged "margin of error" and explained why Industry Petitioners' proposed analysis is deeply flawed. The Court therefore should reject this procedural challenge.

[31] Notably, that issue arose in the context of the visibility-benefit prong of the five-factor BART-determination analysis, and the value at issue there, 0.085 deciviews of improvement, is an order of magnitude smaller than the baseline impact values at issue here, which are above 1 deciview for both facilities and, thus, well-above the contribution threshold of 0.5 deciviews.

B. The Alleged Shortcomings in the State's "Subject-to-BART" Conclusion Should Have Been Raised at the State Level.

Industry Petitioners' numerous technical challenges to the CALPUFF modeling discussed above, even if meritorious, do not provide a basis for vacating EPA's approval of Louisiana's SIP. Congress intended to give States "broad authority over BART determinations." *UARG*, 471 F.3d at 1335 (citing *Am. Corn Growers Ass'n v. EPA*, 291 F.3d 1, 8 (D.C. Cir. 2002)). Indeed, Congress intended that the "State[s], rather than the Administrator, identif[y] the source that impairs visibility in the Federal class I areas . . . ." H.R. Conf. Rep. No. 95-564 (1977), *as reprinted in* U.S.C.C.A.N. 1502, 1536; *see Corn Growers*, 291 F.3d at 8 (quoting same). Although EPA has a review role, an important aspect of the States' authority is that they "may submit implementation plans more stringent than federal law requires" and EPA "must approve such plans if they meet the minimum requirements" of the Act. *Union Elec. Co.*, 427 U.S. at 265.

Industry Petitioners' technical challenges to the CALPUFF modeling would turn those principles upside down. They urge EPA and the Court to reject an otherwise fully compliant SIP on grounds that Louisiana was over-inclusive in its "subject-to-BART" determination because its modeling over-estimated visibility impacts. Through their arguments, Industry seeks to remedy what they see as the potential for "excessive control of emissions" and "unjustified emissions limits."

Industry Br. 31. Even if this were true (and it is not—notably, Industry Petitioners do not challenge the BART determination itself), those type of arguments do not present a basis on which EPA may disapprove the SIP under the statute or on which the Court may invalidate EPA's SIP approval. *Union Elec Co.*, 427 U.S. at 264 (rejecting the idea that the CAA requires EPA "to expend considerable time and energy determining whether a state plan was precisely tailored to meet the federal standards").

Because Louisiana's 2017 SIP met all statutory and regulatory requirements, EPA was obliged to approve it. *See* 42 U.S.C. § 7410(k)(3) (EPA "*shall approve* [a SIP] submittal as a whole if it meets all of the applicable requirements of this chapter") (emphasis added); *see also Union Electric*, 427 U.S. at 257 (if a State's implementation plan meets the requirements of the Act and was adopted after reasonable notice and hearing, EPA "shall approve" the proposed State plan). "The mandatory 'shall' makes it quite clear that the Administrator is not to be concerned with factors other than those specified." *Id.* (citing *Train*, 421 U.S. at 71 n.11 (the Act "quite clearly mandates approval of any plan which satisfied its minimum conditions")). Thus, in *Union Electric*, the Supreme Court found that none of the applicable requirements (under 42 U.S.C. § 7410(a)(2), in that case) permitted EPA to consider the technological or economic infeasibility issues industry had raised. 427 U.S. at 257. Similarly here, the modeling concerns

Industry Petitioners raise do not present an allegation that the minimum statutory and regulatory requirements have not been met. Even if those modeling concerns had merit, they would provide no basis on which EPA could have disapproved Louisiana's SIP. *See, e.g.*, *BCCA Appeal Grp.*, 355 F.3d at 817 n.6 ("EPA is empowered to disapprove state plans only when they fall below the level of stringency required by federal law.") (citation omitted).

Industry Petitioners insist, however, that EPA's Final Rule violates the Act because the Nelson and Brame sources may not "reasonably be anticipated to cause or contribute to any impairment of visibility in any [Class I] area." *E.g.*, Industry Br. 4, 5, 8, 24, 33 (citing 42 U.S.C. § 7491(b)(2)(A); 40 C.F.R. § 51.308(e)(1)(ii)). According to Industry Petitioners, if a source does *not* meet this test, then the State affirmatively cannot include that source in its SIP, and EPA must disapprove the SIP if it does. *See* Industry Br. 4 ("[A] SIP may *only* find a source subject to BART if there is reliable evidence that the source's emissions 'may reasonably be anticipated' to impair visibility in a protected area.") (emphasis added).

First, that dubious interpretation of the CAA is foreclosed by Section 116, 42 U.S.C. § 7416 (which reserves to the States the right to set air pollution control requirements more stringent that federal law) as well as *Union Electric* and *BCCA Appeal Group*, among other cases, as discussed above. Second, such an

interpretation contradicts the BART Guidelines. Under those Guidelines, States may exercise the discretion afforded by the CAA to make the "subject-to-BART" determination either (a) collectively for *all* BART-eligible sources without further source-specific analysis, or (b) individually on a source-by-source basis. The second approach allows a State to determine that some sources should be *exempt* from being "subject to BART" "because they may not reasonably be anticipated to cause or contribute to any visibility impairment in a Class I area." 40 C.F.R. Pt. 51, App. Y, III.[32] Although Louisiana elected to proceed under the second approach here, the *availability* of the first approach reveals why Industry Petitioners' claims are meritless. "The guidelines reaffirm that a State may choose to consider all BART-eligible sources to be subject to BART and to make BART determinations for all its BART-eligible sources." 70 Fed. Reg. at 39,118. Nothing in the Guidelines gives EPA authority to disapprove regional haze SIPs as over-inclusive on grounds that a State chooses *not* to exempt a source from the "subject-to-BART" determination.

Given EPA's inability to disapprove a SIP that meets the applicable statutory and regulatory requirements, EPA is the wrong target for Industry Petitioners' complaints about the CALPUFF modeling. If Industry Petitioners believed that

[32] Similarly, Louisiana would have been within its rights to set a contribution threshold lower than 0.5 deciviews. *See* 70 Fed. Reg. at 39,130.

Louisiana was in error in determining that the Nelson and Brame sources are "subject-to-BART," they had recourse under State law. Louisiana law authorizes judicial review of State rules and regulations under the State's Administrative Procedure Act. La. R.S. 49:963(A)(1). "The [Louisiana] APA prescribes detailed procedures which administrative agencies must follow in adopting, amending, or repealing any regulation, including provisions for public notice and comment . . . ." *State v. All Pro Paint & Body Shop, Inc.*, 639 So. 2d 707, 720 (La. Sup. Ct. 1994) (citing La. R.S. 49:950-970 and La. R.S. 30:2018(A)). Industry Petitioners participated actively in Louisiana's SIP development process, including supplying their own modeling to the State. Thus, they could have, but did not, seek judicial review in State court of the SIP when finalized by Louisiana. In the absence of a claim that the requirements of the CAA have not been met, that would have been the appropriate avenue to bring the myriad of technical challenges to the CALPUFF modeling. By bringing those challenges here, asking the Court to vacate EPA's Final Rule on grounds that go beyond the scope of grounds on which EPA could have disapproved Louisiana's SIP, Industry Petitioners seek to abrogate

a State's well-settled ability to include as many sources as a State deems appropriate in their "subject-to-BART" determination.[33]

C. EPA Reasonably Approved Louisiana's SIP Based on the Submission As a Whole, Which Included Additional Modeling Results That Supported Louisiana's Conclusions.

If the Court upholds EPA's approval of Louisiana's "subject-to-BART" conclusion based on the CALPUFF modeling, the Court need not consider Industry Petitioners' arguments concerning the CAMx modeling. CALPUFF was a sufficient basis for Louisiana's SIP determinations, and EPA relied on that CALPUFF modeling to approve the State's determination. The CAMx modeling did not provide a contradictory result, nor was the CAMx modeling the only basis for EPA's Final Rule. In fact, the CAMx modeling supported the CALPUFF results and provided additional support for EPA's approval of Louisiana's SIP. Thus, EPA's approval can stand on the basis of the CALPUFF modeling alone if the Court rejects Industry Petitioners' technical arguments above, *see supra* III.A–B. In that case, the Court would not need to consider the additional technical arguments Industry makes concerning the CAMx modeling. Nonetheless, if the

[33] EPA determined that, as a factual matter, Louisiana's subject-to-BART determinations for these facilities were appropriate and reasonable under the Guidelines. Thus, it is not EPA's position that the State in fact took action more stringent than the Act requires. Rather, EPA's position is that Industry Petitioners' claims are *legally* unavailing.

Court finds any deficiencies in EPA's approval of the CALPUFF modeling or decides to address the CAMx modeling at all, none of Industry Petitioners' arguments provides a basis for vacating or remanding EPA's SIP approval.

1. Nothing in the Act precludes EPA from considering its own modeling included in the State's SIP submission to further support approval of that SIP.

Industry Petitioners insist that EPA's consideration of its own CAMx modeling, which Louisiana included in its SIP submittal, went beyond EPA's statutory authority and "supplant[ed]" the State's analysis. Industry Br. 35; *see id.* 37 (arguing EPA's CAMx modeling was "used in . . . place" of the State's modeling). That argument, *id.* 35–37, lacks any legal support and mischaracterizes the purpose of EPA's CAMx modeling here.

As a threshold matter, no commenter, including Entergy or Cleco, raised in their comments on the proposed SIP approval the issue of whether EPA has the statutory authority to consider or perform additional modeling. Thus, Industry Petitioners' argument concerning EPA's statutory authority to consider additional CAMx modeling has been waived. *See BCCA Appeal Grp.*, 355 F.3d at 828–30 (refusing to consider legal argument against SIP approval not raised in comments (citing *Texas Oil & Gas Ass'n v. EPA*, 161 F.3d at 933 n.7)).

Even if the Court considers this statutory argument, however, it finds no legal support. CAA Section 110(k)(3) requires EPA to approve a SIP submittal if

"the *submittal as a whole* . . . meets all of the applicable requirements of this chapter." 42 U.S.C. § 7410(k)(3) (emphasis added). To that end, the Agency "considers the final SIP document as well as any accompanying supporting documents or appendices that have been submitted by the State." Index #5.20 at 8, App143. Nothing in the statute precludes EPA from considering its own modeling analysis, which was included in Louisiana's SIP submission, to correct errors found in the modeling provided to Louisiana by entities that would be directly affected by Louisiana's "subject-to-BART" conclusions. EPA's ability to provide technical assistance to a State and assure itself that the State's submittal is indeed approvable in such circumstances is incontrovertible.

Notably, Industry Petitioners' reliance on *Train v. NRDC*, 421 U.S. 60, defeats, rather than supports, their argument. Industry Br. 37. There, the court of appeals held that EPA improperly approved a State's SIP that included certain variance provisions allowable under the 1970 CAA amendments. The Supreme Court reversed, concluding that as long as the State's plan meets all applicable requirements of the Act, EPA "has no authority to question the wisdom of a State's choices of emission limitations . . . ." 421 U.S. at 79.

Industry Petitioners misinterpret *Train* to lead to a "converse" proposition that EPA also has "no authority to provide its own wisdom to ensure that a SIP satisfies" the Act. Industry Br. 37. That converse proposition is false. *Train* did

not deal with the scope of record evidence that EPA can consider in approving a SIP, nor did it deal with the situation here where EPA has provided additional analysis, which the State included as part of its SIP submission.

As in *Train*, EPA here did not question the wisdom of the State's SIP, which fully complied with all applicable statutory and regulatory requirements. Here, EPA performed CAMx modeling simply "to provide additional data and analysis for some large emission sources" like Brame and Nelson. 82 Fed. Reg. at 60,525. That CAMx modeling served to correct the deficiencies identified in Industry Petitioners' own CAMx modeling. That CAMx modeling also "support[ed] the determination made by [Louisiana] that Entergy Nelson and Cleco Brame cause or contribute to visibility impairment at nearby Class I areas and are therefore subject to BART." 82 Fed. Reg. at 60,526; *see* Index #5.20 at 7, App142 (same). In fact, EPA's CAMx modeling produced modeled visibility impacts that were even *higher* (almost double for impacts at Caney Creek) than the impacts modeled using CALPUFF. *See* Index #5.89 at 28, Table 3-8 (Brame), App655-56; *id.* at 33, Table 3-14 (Nelson), App660; Index #5.20 at 7, App142 (discussing CAMx modeling results). Thus, this CAMx modeling provided *additional*, not substitute, support for the State's "subject-to-BART" conclusion. *See* 82 Fed. Reg. at 60,535–36 (EPA "did not intend to imply that we substituted our own judgment for [Louisiana's].").

EPA provided that CAMx modeling to Louisiana and Louisiana included that modeling in its SIP submission, even though Louisiana did not have the expertise and resources to review that CAMx modeling itself. Index #5.20 at 8, App143. That modeling therefore was part of the "whole" SIP submittal Louisiana provided, 42 U.S.C. § 7410(k)(3), and EPA properly considered it in the Final Rule. As EPA pointedly summarized:

> When reviewing a SIP to determine whether it meets the applicable statutory and regulatory requirements, EPA considers the final SIP document as well as any accompanying supporting documents or appendices that have been submitted by the State. Reviewing the supporting documents and appendices assists EPA in determining how the State reached its final conclusion, and thus, helps determine whether the final conclusion meets the applicable statutory and regulatory requirements. We also note that in the SIP revision submitted to EPA in October 2017, LDEQ stated that the "SIP is being revised to include the EPA information." This indicates that Louisiana considered the information provided by EPA when making its determination. It is thus appropriate for EPA to similarly rely on this information in our final rule.

82 Fed. Reg. at 60,535–36.

EPA therefore was well within its statutory authority to consider the additional CAMx modeling that EPA conducted to rebut Industry's deficient modeling and that Louisiana, in turn, included in its SIP submission.

2. The EPA CAMx modeling included in the State's SIP was reasonable and consistent with the BART Guidelines.

Industry Petitioners' three technical arguments attacking the EPA CAMx modeling that Louisiana included in its SIP submittal have no merit. Industry Br.

38–49. Overall, EPA's "CAMx modeling is consistent with the BART Guidelines and a previous modeling protocol [EPA] developed for the use of CAMx modeling for BART screening for sources in Texas." 82 Fed. Reg. at 60,526. Industry Petitioner's arguments concerning CAMx, like their arguments concerning CALPUFF, effectively what the BART Guidelines have recommended since 2005. These types of modeling decisions deserve deference because EPA's analysis "was based upon its evaluation of complex scientific data within its technical expertise." *BCCA Appeal Grp.*, 355 F.3d at 834.

a. EPA's CAMx modeling was consistent with the modeling protocol, which uses maximum 24-hour emission rates.

EPA approved a particular protocol for using CAMx modeling when Texas previously requested to use CAMx for BART screening to evaluate visibility impacts from individual BART sources. *See* Index #22.23 at 7, App3369 (discussing development and approval of protocol). EPA conducted its CAMx modeling here (to correct the deficiencies in Industry's CAMx modeling) in accordance with this protocol. *Id.*

Ignoring that protocol, Industry Petitioners argue that use of the maximum 24-hour emission rate is "inappropriate" for making the "cause or contribute" finding for the "subject-to-BART" determination. Industry Br. 38–39. This argument echoes the same complaint Industry had about the CALPUFF modeling:

over-estimation of visibility impacts. That complaint rings hollow, however, against the backdrop of the BART Guidelines' recommendation for modeling to screen sources at the "subject-to-BART" stage of the analysis.

"BART modeling is focused on identifying the maximum potential impact from the source by modeling steady-state maximum actual emissions over a range of meteorological conditions." Index #5.20 at 10, App146; *see* 40 C.F.R. Pt. 51, App. Y, III.2 (when using dispersion models, "the emissions estimates . . . are intended to reflect steady-state operating conditions during periods of high capacity utilization"). EPA therefore recommends "that States use the 24 hour average actual emission rate from the highest emitting day of the meteorological period modeled, unless this rate reflects periods of start-up, shutdown, or malfunction." 40 C.F.R. Pt. 51, App. Y, III.2. Consistent with those Guidelines and the CAMx protocol, EPA's CAMx modeling here used the maximum 24-hour emission rate. There is no basis for Industry Petitioners' claim that for CAMx, rather than CALPUFF, something less than this rate is appropriate to use. The purpose of modeling at this "subject-to-BART" stage, is to assess the "potential impact" of a source. EPA has rejected the use of an average daily emission rate, 70 Fed. Reg. at 39,129, which is what Industry used in their CAMx modeling, because such an approach "severely underestimates" peak emissions and potential

visibility impacts. Index #22.23 at 29, App3391; Index #5.20 at 13-16, App148-51.

Industry Petitioners' additional argument that the NO_x emission rate used for the Nelson facility was too high ignores both the Guidelines and EPA's response to this issue. Industry Br. 41. EPA acknowledged that this emission rate appeared to be "an outlier and that the next highest value is approximately 40% lower." Index #5.20 at 63, App198. Industry Petitioners, however, failed to "provide any additional information to verify that abnormal operations such as those associated with [start-up, shutdown, or malfunction] occurred on that day." *Id.* Given that the Guidelines only provide for exclusion of emissions data on the basis of startup, shutdown, and malfunction events, 40 C.F.R. Pt. 51, App. Y, III.2, there was no basis to exclude that 24-hour emission rate under the Guidelines.[34] More critically, this purported error is irrelevant. Excluding that highest NO_x emission rate still would not have resulted in modeled emission rates below the 0.5 deciview threshold used for determining if a source "contributes" to visibility impairment. Index #5.20 at 63–64, App198-99. EPA explained using a lower NO_x emission

[34] Industry Petitioners rely on the Texas regional haze action to point out that there, EPA disregarded a maximum NO_x emission rate and, instead, used the second highest value. Industry Br. 41. However, as Entergy's own comment letter reveals, and unlike here, EPA specifically identified this outlier rate in the Texas action as apparently due to startup, shutdown, and malfunction. *See* Index #141 at 17, App3609 (citing EPA Docket No. EPA-R06-OAR-2016-0611-0013).

rate—even 40 percent lower—"would not significantly lower the modeled maximum impacted day as this day and many of the days with modeled impacts over 0.5 deciview because these days are primarily impacted by visibility impairing particulates related to SO_2 emissions." *Id.* at 64, App199. Thus, even if all nitrate impacts were eliminated altogether for the Nelson facility, there would still be modeled impacts from that source's sulfate emissions that are modeled to be well over 0.5 deciviews. *Id.*

EPA's use of the 24-hour maximum emission rate for the CAMx modeling therefore was consistent with the CAMx protocol and BART Guidelines, and EPA adequately addressed comments concerning this emission rate.

b. Industry Petitioners' argument concerning "relative response factors" is misplaced.

Industry Petitioners argue that EPA should have used "relative response factors," by which modeling results are used to express a change in air quality conditions relative to real-world monitored data, instead of using absolute modeled concentrations. Industry Br. 42. This argument insists that instead of using the direct results of CAMx modeling (which provide a maximum-impact scenario for contribution from BART-eligible sources, as required by the BART Guidelines) EPA should have used a "relative response factor" approach to "confirm[] the validity of the concentrations" projected in the modeling. *Id.* These analytically

flawed arguments misunderstand the purpose of "subject-to-BART" modeling and do not comport with the BART Guidelines.

Whether using CALPUFF, CAMx, or another appropriate model to determine if a given source's emissions meet the 0.5 deciview contribution threshold, the Guidelines call for the assessment of impacts over a wide range of meteorological conditions using the highest level of emissions recorded during a baseline period. 40 C.F.R. Pt. 51, App Y, III.A.3, Option 1.2. ("The emissions estimates used in the models are intended to reflect steady-state operating conditions during periods of high capacity utilization."). Importantly, the purpose of screening modeling for the "subject-to-BART" determination is not to construct the most accurate representation of what future ambient visibility conditions may be; rather, it is to determine whether individual sources may reasonably be anticipated to cause or contribute—to assess their potential impact. *See supra* at 18. Such a *screening* analysis has involved (since at least the 2005 BART Guidelines) an assessment of worst-case emissions and impacts to make that determination.

The CAMx modeling protocol EPA followed here was specifically designed for this type of source-specific screening, not to assess overall trends in ambient air quality. It is in this latter context that EPA has stated that use of a relative response factor approach may be appropriate:

> [T]he use of a relative modeling approach, using [relative response factors] is appropriate for projecting overall concentrations and addressing potential bias in overall model predictions due to all sources at monitored locations but not for estimating maximum potential impacts due to emissions from a single source. The use of a[] [relative response factor] approach and observed data could result in unrealistic estimates of absolute maximum impacts from an individual source due to a number of other factors in the model not related to the specific source that affect overall model performance and any bias in overall model predictions. Since the emissions and characteristics of the specific source of interest are well known, the modeled impacts will be appropriately estimated. Furthermore, it is necessary to estimate the source impacts on all days to assess the maximum or worst case impacts, not just on days when monitored data exists. We concluded that the use of direct modeled visibility impacts from CAMx is appropriate and the [relative response factor] approach suggested by the commenters does not provide a reliable estimate of the maximum potential visibility impacts from the source.

Index #5.20 at 22, App157.[35]

Industry Petitioners' citation to EPA's views on relative response factors in the Texas and Oklahoma reasonable progress FIP does not support their argument. Industry Br. 43 n.20. There again, the application of relative response factors was appropriate to assess "overall projected visibility conditions," which "differs from the BART analysis performed for this action that is focused on the maximum

[35] Along those same lines, Industry Petitioners' citation to EPA's 2007 and 2014 guidance on air quality modeling is misleading. Industry Br. 43 n.21. Those guidance documents relate to making *overall* attainment demonstrations or showing progress towards the goal of natural visibility conditions in the regional haze program—applications in which obtaining a representation of overall air quality conditions is the purpose—not conducting a source-specific screening analysis, as here.

potential impacts and benefits from controls from the individual BART sources, evaluating all modeled days and using maximum emission levels." Index #5.20 at 22, App157.

Further, EPA addressed why Industry Petitioners' suggested relative-response-factor approach used in their modeling was deeply flawed. *See* Index #22.23 at 27–33, App3389-95. Among other things, Industry's modeling deviated from the BART Guidelines. It did not (1) utilize emissions representative of maximum 24-hr actual emissions from the baseline period, (2) evaluate the maximum modeled impact for all days, and (3) calculate the deciview visibility impact based on a natural visibility background approach. Index #5.20 at 10, App145. Even after adjusting their modeling in response to initial EPA criticism, the methodology was still unreliably flawed, partly due to its use of relative response factors. *Id.* at 12–13, App147-48.

Industry Petitioners also misconstrue the record regarding the need for monitored nitrogen dioxide values in the CAMx modeling. Industry Br. 45–46. First, as EPA explained, the impact of NO_2 on light extinction during the top ten impact days was well below one percent of the total modeled impact for both Nelson and Brame, meaning it had an insignificant effect on the regulatory conclusion that these sources should be subject to BART. Index #5.20 at 43-44, App178-79. Second, the discussion of the need for monitor data for NO_2, cited by

Industry Petitioners, relates to its use in a "relative response factor" methodology, where monitoring data are needed generally for the "estimation of overall visibility conditions." *Id.* The approach EPA took here of using the CAMx modeling results *directly* to assess visibility impacts from specific sources, which includes *modeled* NO_2 concentrations, does not require having NO_2 *monitoring* data.

c. EPA fully considered model performance and explained why CAMx results were reliable for the purpose of assessing visibility impacts.

Industry Petitioners' last technical attack on EPA's CAMx modeling relies on a "Model Performance Evaluation" to argue that the CAMx modeling overestimated haze during the winter. Industry Br. 47–48. Industry Petitioners' argument is that EPA's modeling failed what they characterize as a "model performance evaluation." *Id.* (citing to several pages in a memorandum to EPA from the University of North Carolina Institute ("UNC") for the Environment, summarizing the CAMx modeling they did for EPA).

Stripped bare, this is another attack on the use of maximum emissions value inputs as a part of the BART screening process for which the modeling is being conducted. Industry Petitioners claim that certain "over-predictions" in the modeling results, particularly related to $PM_{2.5}$ concentrations in winter months, render the modeling unreliable. But EPA understood and explained the cause of the bias, which was related to the use of maximum emissions for modeling of

multiple BART-eligible sources. This approach accords with the BART Guidelines' direction to look at *maximum* impacts. 40 C.F.R. Pt. 51, App. Y, III.A.3, Option 1.2. Further, after assessing the cause and effects of that bias, EPA determined that the modeling was nonetheless reliable to support a determination that these two sources were above the visibility-impairment threshold to be subject to BART. This was a reasonable exercise of the agency's discretion and expertise. *See BCCA Appeal Grp.*, 355 F.3d at 833–34 (upholding EPA modeling where EPA "offered a rational explanation for its reliance on the model[,] . . . "recognized the model's shortcomings[,] . . . and provided plausible explanations that were supported by the record").

"EPA and UNC's overall conclusion was that, with limited exceptions, the current CAMx modeling performance corresponds to the previous [CAMx reasonable progress] modeling and that it meets the EPA performance guidelines." Index #5.20 at 50, App185. EPA acknowledged that there were two potential bases for concern: a higher bias for nitrates in the cooler season, and elevated $PM_{2.5}$ concentrations. *Id.* As EPA further explained, however: "Both of these findings are explained by considering the emissions that were used in the BART analysis modeling," which was designed to "assess the maximum potential impact from several BART-eligible sources. As such, [these sources] were modeled with maximum 24-hr emission rates for NO_x, SO_2 and PM instead of their actual

emissions for the modeled period." *Id.* EPA explained that these inputs would be expected to particularly affect the model's estimates of nitrate formation during the winter months. Nitrate concentrations typically are much lower during the summer months due to chemistry primarily favoring sulfate generation in warmer conditions. *Id.* at 51, App186. EPA further noted that many of the days with large modeled visibility impacts due to emissions from Nelson and Brame were during the warmer months where nitrate impacts are not significant and visibility impairment is dominated by sulfates. *Id.* at 61, App196. EPA concluded that the model on the average is "*underestimating the impact of sources of SO_2 on particulate sulfate during the warmer months.* Nitrate is also under-predicted in the summer months and overestimated in the winter." *Id.* at 51, App186 (emphasis added). EPA summarized, "Because the model performance indicates a tendency to under-predict sulfate concentrations during these warmer months . . . and these BART sources are a significant component of the SO_2 emissions, it is likely that impacts from these sources are under-predicted by the model results." *Id.* at 60–61, App195-96. EPA clearly grappled with the limitations in the modeling and nonetheless concluded that overall the modeling reasonably supported the subject-to-BART determination. Nothing more is required. *Avoyelles Sportsmen's*, 715 F.2d at 904.

3. EPA reasonably rejected Industry's CAMx modeling, which did not comply with the BART Guidelines.

EPA is entitled to deference in its choice of modeling, and its projections should not be invalidated "solely because there might be discrepancies between those predictions and the real world." *EME Homer City Generation, L.P. v. EPA*, 795 F.3d 118, 135-36 (D.C. Cir. 2015); *see id.* ("[T]hat a model does not fit every application perfectly is no criticism; a model is meant to simplify reality in order to make it tractable.") (quoting *Chem. Mfrs. Ass'n v. EPA*, 28 F.3d 1259, 1264 (D.C. Cir. 1994)). Moreover, EPA's factual findings are entitled to substantial deference and should be upheld as long as they are supported by the administrative record. *Arkansas*, 503 U.S. at 110–13.

Here, EPA reasonably concluded that Industry Petitioners' CAMx modeling was not conducted in accordance with the BART Guidelines or the CAMx modeling protocol. 82 Fed. Reg. at 60,526. Industry Petitioners' CAMx modeling deviated from the BART Guidelines because, among other things, "it did not utilize emissions representative of maximum 24-hour actual emissions from the baseline period, did not evaluate the maximum modeled impact for all days, and did not calculate the deciview visibility impact based on a natural visibility background approach." 82 Fed. Reg. at 60,526. EPA therefore reasonably concluded that Industry Petitioners' CAMx modeling is invalid for supporting any

determination of visibility impacts against the 0.5 deciviews "contribution" threshold. *Id.*

Industry Petitioners do not dispute these failures in its CAMx modeling. Instead, their real issue is again with what the BART Guidelines and the CAMx protocol provide. EPA reviewed Industry Petitioners' CAMx modeling in the CAMx Modeling TSD and identified a number of short-comings. EPA concluded that it does not properly assess the maximum baseline impacts and is inconsistent with the BART Guidelines. *See* Index #5.20 at 10–11, App145-46 (discussing failures of Entergy's CAMx modeling); Index #22.23 at 27–33, App3389-95. EPA's assessments on this score are both technically sound and entitled to deference.

CONCLUSION

For the foregoing reasons, the Court should deny the Environmental and Industry Petitioners' petitions for review.

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CERTIFICATE OF SERVICE

I certify that a copy of the foregoing was served, pursuant to 5th Cir. R. 25.2.5, on October 2, 2018, on all counsel of record in this matter by filing this document with the Court's CM/ECF system.

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CERTIFICATE OF COMPLIANCE

1. This brief complies with the type-volume limitation of Fed. R. App. P. 32(a)(7)(B) because this brief contains 23,966 words, excluding the portions exempted by Fed. R. App. P. 32(a)(7)(B)(iii).

2. This brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type style requirements of Fed. R. App. P. 32(a)(6) because the brief has been prepared in a proportionally spaced typeface using Microsoft Office Word 2013 in 14-point Calisto MT.

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STATUTORY ADDENDUM

Statutes:

42 U.S.C. § 7416 ..... ADD1

42 U.S.C. § 7492 ..... ADD2

42 U.S.C. § 7601 ..... ADD6

Regulations:

40 C.F.R. Pt. 51, App. V ADD9

40 C.F.R. § 51.300 ..... ADD13

United States Code Annotated
Title 42. The Public Health and Welfare
Chapter 85. Air Pollution Prevention and Control (Refs & Annos)
Subchapter I. Programs and Activities
Part A. Air Quality and Emissions Limitations (Refs & Annos)

42 U.S.C.A. § 7416

§ 7416. Retention of State authority

Currentness

Except as otherwise provided in sections 1857c-10(c), (e), and (f) (as in effect before August 7, 1977), 7543, 7545(c)(4), and 7573 of this title (preempting certain State regulation of moving sources) nothing in this chapter shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce (1) any standard or limitation respecting emissions of air pollutants or (2) any requirement respecting control or abatement of air pollution; except that if an emission standard or limitation is in effect under an applicable implementation plan or under section 7411 or section 7412 of this title, such State or political subdivision may not adopt or enforce any emission standard or limitation which is less stringent than the standard or limitation under such plan or section.

CREDIT(S)

(July 14, 1955, c. 360, Title I, § 116, formerly § 109, as added Pub.L. 90-148, § 2, Nov. 21, 1967, 81 Stat. 497, renumbered and amended Pub.L. 91-604, § 4(a), (c), Dec. 31, 1970, 84 Stat. 1678, 1689; Pub.L. 93-319, § 6(b), June 22, 1974, 88 Stat. 259; Pub.L. 95-190, § 14(a)(24), Nov. 16, 1977, 91 Stat. 1400.)

Notes of Decisions (8)

42 U.S.C.A. § 7416, 42 USCA § 7416
Current through P.L. 115-223. Also includes P.L. 115-225 to 115-231 and 115-233 to 115-243. Title 26 current through P.L. 115-244.

End of Document

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United States Code Annotated
Title 42. The Public Health and Welfare
Chapter 85. Air Pollution Prevention and Control (Refs & Annos)
Subchapter I. Programs and Activities
Part C. Prevention of Significant Deterioration of Air Quality
Subpart II. Visibility Protection (Refs & Annos)

42 U.S.C.A. § 7492

§ 7492. Visibility

Currentness

(a) Studies

(1) The Administrator, in conjunction with the National Park Service and other appropriate Federal agencies, shall conduct research to identify and evaluate sources and source regions of both visibility impairment and regions that provide predominantly clean air in class I areas. A total of $8,000,000 per year for 5 years is authorized to be appropriated for the Environmental Protection Agency and the other Federal agencies to conduct this research. The research shall include--

(A) expansion of current visibility related monitoring in class I areas;

(B) assessment of current sources of visibility impairing pollution and clean air corridors;

(C) adaptation of regional air quality models for the assessment of visibility;

(D) studies of atmospheric chemistry and physics of visibility.

(2) Based on the findings available from the research required in subsection (a)(1) of this section as well as other available scientific and technical data, studies, and other available information pertaining to visibility source-receptor relationships, the Administrator shall conduct an assessment and evaluation that identifies, to the extent possible, sources and source regions of visibility impairment including natural sources as well as source regions of clear air for class I areas. The Administrator shall produce interim findings from this study within 3 years after November 15, 1990.

(b) Impacts of other provisions

Within 24 months after November 15, 1990, the Administrator shall conduct an assessment of the progress and improvements in visibility in class I areas that are likely to result from the implementation of the provisions of the Clean Air Act Amendments of 1990 other than the provisions of this section. Every 5 years thereafter the Administrator shall conduct an assessment of actual progress and improvement in visibility in class I areas. The Administrator shall prepare a written report on each assessment and transmit copies of these reports to the appropriate committees of Congress.

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(c) Establishment of visibility transport regions and commissions

(1) Authority to establish visibility transport regions

Whenever, upon the Administrator's motion or by petition from the Governors of at least two affected States, the Administrator has reason to believe that the current or projected interstate transport of air pollutants from one or more States contributes significantly to visibility impairment in class I areas located in the affected States, the Administrator may establish a transport region for such pollutants that includes such States. The Administrator, upon the Administrator's own motion or upon petition from the Governor of any affected State, or upon the recommendations of a transport commission established under subsection (b) of this section [1] may--

(A) add any State or portion of a State to a visibility transport region when the Administrator determines that the interstate transport of air pollutants from such State significantly contributes to visibility impairment in a class I area located within the transport region, or

(B) remove any State or portion of a State from the region whenever the Administrator has reason to believe that the control of emissions in that State or portion of the State pursuant to this section will not significantly contribute to the protection or enhancement of visibility in any class I area in the region.

(2) Visibility transport commissions

Whenever the Administrator establishes a transport region under subsection (c)(1) of this section, the Administrator shall establish a transport commission comprised of (as a minimum) each of the following members:

(A) the Governor of each State in the Visibility Transport Region, or the Governor's designee;

(B) The [2] Administrator or the Administrator's designee; and

(C) A [2] representative of each Federal agency charged with the direct management of each class I area or areas within the Visibility Transport Region.

(3) Ex officio members

All representatives of the Federal Government shall be ex officio members.

(4) Federal Advisory Committee Act

The visibility transport commissions shall be exempt from the requirements of the Federal Advisory Committee Act.

(d) Duties of visibility transport commissions

A Visibility Transport Commission--

(1) shall assess the scientific and technical data, studies, and other currently available information, including studies conducted pursuant to subsection (a)(1) of this section, pertaining to adverse impacts on visibility from potential or projected growth in emissions from sources located in the Visibility Transport Region; and

(2) shall, within 4 years of establishment, issue a report to the Administrator recommending what measures, if any, should be taken under this chapter to remedy such adverse impacts. The report required by this subsection shall address at least the following measures:

(A) the establishment of clean air corridors, in which additional restrictions on increases in emissions may be appropriate to protect visibility in affected class I areas;

(B) the imposition of the requirements of part D of this subchapter affecting the construction of new major stationary sources or major modifications to existing sources in such clean air corridors specifically including the alternative siting analysis provisions of section 7503(a)(5) of this title; and

(C) the promulgation of regulations under section 7491 of this title to address long range strategies for addressing regional haze which impairs visibility in affected class I areas.

(e) Duties of Administrator

(1) The Administrator shall, taking into account the studies pursuant to subsection (a)(1) of this section and the reports pursuant to subsection (d)(2) of this section and any other relevant information, within eighteen months of receipt of the report referred to in subsection (d)(2) of this section, carry out the Administrator's regulatory responsibilities under section 7491 of this title, including criteria for measuring "reasonable progress" toward the national goal.

(2) Any regulations promulgated under section 7491 of this title pursuant to this subsection shall require affected States to revise within 12 months their implementation plans under section 7410 of this title to contain such emission limits, schedules of compliance, and other measures as may be necessary to carry out regulations promulgated pursuant to this subsection.

(f) Grand Canyon visibility transport commission

The Administrator pursuant to subsection (c)(1) of this section shall, within 12 months, establish a visibility transport commission for the region affecting the visibility of the Grand Canyon National Park.

CREDIT(S)

(July 14, 1955, c. 360, Title I, § 169B, as added Pub.L. 101-549, Title VIII, § 816, Nov. 15, 1990, 104 Stat. 2695.)

Notes of Decisions (2)

Footnotes

1 So in original. Words "subsection (b) of this section" probably should be "paragraph (2)".

2 So in original. Probably should not be capitalized.

42 U.S.C.A. § 7492, 42 USCA § 7492

Current through P.L. 115-223. Also includes P.L. 115-225 to 115-231 and 115-233 to 115-243. Title 26 current through P.L. 115-244.

End of Document

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United States Code Annotated
Title 42. The Public Health and Welfare
Chapter 85. Air Pollution Prevention and Control (Refs & Annos)
Subchapter III. General Provisions

42 U.S.C.A. § 7601

§ 7601. Administration

Currentness

(a) Regulations; delegation of powers and duties; regional officers and employees

(1) The Administrator is authorized to prescribe such regulations as are necessary to carry out his functions under this chapter. The Administrator may delegate to any officer or employee of the Environmental Protection Agency such of his powers and duties under this chapter, except the making of regulations subject to section 7607(d) of this title, as he may deem necessary or expedient.

(2) Not later than one year after August 7, 1977, the Administrator shall promulgate regulations establishing general applicable procedures and policies for regional officers and employees (including the Regional Administrator) to follow in carrying out a delegation under paragraph (1), if any. Such regulations shall be designed--

(A) to assure fairness and uniformity in the criteria, procedures, and policies applied by the various regions in implementing and enforcing the chapter;

(B) to assure at least an adequate quality audit of each State's performance and adherence to the requirements of this chapter in implementing and enforcing the chapter, particularly in the review of new sources and in enforcement of the chapter; and

(C) to provide a mechanism for identifying and standardizing inconsistent or varying criteria, procedures, and policies being employed by such officers and employees in implementing and enforcing the chapter.

(b) Detail of Environmental Protection Agency personnel to air pollution control agencies

Upon the request of an air pollution control agency, personnel of the Environmental Protection Agency may be detailed to such agency for the purpose of carrying out the provisions of this chapter.

(c) Payments under grants; installments; advances or reimbursements

Payments under grants made under this chapter may be made in installments, and in advance or by way of reimbursement, as may be determined by the Administrator.

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(d) Tribal authority

(1) Subject to the provisions of paragraph (2), the Administrator--

(A) is authorized to treat Indian tribes as States under this chapter, except for purposes of the requirement that makes available for application by each State no less than one-half of 1 percent of annual appropriations under section 7405 of this title; and

(B) may provide any such Indian tribe grant and contract assistance to carry out functions provided by this chapter.

(2) The Administrator shall promulgate regulations within 18 months after November 15, 1990, specifying those provisions of this chapter for which it is appropriate to treat Indian tribes as States. Such treatment shall be authorized only if--

(A) the Indian tribe has a governing body carrying out substantial governmental duties and powers;

(B) the functions to be exercised by the Indian tribe pertain to the management and protection of air resources within the exterior boundaries of the reservation or other areas within the tribe's jurisdiction; and

(C) the Indian tribe is reasonably expected to be capable, in the judgment of the Administrator, of carrying out the functions to be exercised in a manner consistent with the terms and purposes of this chapter and all applicable regulations.

(3) The Administrator may promulgate regulations which establish the elements of tribal implementation plans and procedures for approval or disapproval of tribal implementation plans and portions thereof.

(4) In any case in which the Administrator determines that the treatment of Indian tribes as identical to States is inappropriate or administratively infeasible, the Administrator may provide, by regulation, other means by which the Administrator will directly administer such provisions so as to achieve the appropriate purpose.

(5) Until such time as the Administrator promulgates regulations pursuant to this subsection, the Administrator may continue to provide financial assistance to eligible Indian tribes under section 7405 of this title.

CREDIT(S)

(July 14, 1955, c. 360, Title III, § 301, formerly § 8, as added Pub.L. 88-206, § 1, Dec. 17, 1963, 77 Stat. 400, renumbered Pub.L. 89-272, Title I, § 101(4), Oct. 20, 1965, 79 Stat. 992; amended Pub.L. 90-148, § 2, Nov. 21, 1967, 81 Stat. 504; Pub.L. 91-604, §§ 3(b)(2), 15(c)(2), Dec. 31, 1970, 84 Stat. 1677, 1713; Pub.L. 95-95, Title III, § 305(e), Aug. 7, 1977, 91 Stat. 776; Pub.L. 101-549, Title I, §§ 107(d), 108(i), Nov. 15, 1990, 104 Stat. 2464, 2467.)

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Notes of Decisions (11)

42 U.S.C.A. § 7601, 42 USCA § 7601
Current through P.L. 115-223. Also includes P.L. 115-225 to 115-231 and 115-233 to 115-243. Title 26 current through P.L. 115-244.

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Code of Federal Regulations
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 51. Requirements for Preparation, Adoption, and Submittal of Implementation Plans (Refs & Annos)

40 C.F.R. Pt. 51, App. V

Appendix V to Part 51—Criteria for Determining the Completeness of Plan Submissions

Effective: March 16, 2015
Currentness

1.0. Purpose

This appendix V sets forth the minimum criteria for determining whether a State implementation plan submitted for consideration by EPA is an official submission for purposes of review under § 51.103.

1.1 The EPA shall return to the submitting official any plan or revision thereof which fails to meet the criteria set forth in this appendix V, and request corrective action, identifying the component(s) absent or insufficient to perform a review of the submitted plan.

1.2 The EPA shall inform the submitting official whether or not a plan submission meets the requirements of this appendix V within 60 days of EPA's receipt of the submittal, but no later than 6 months after the date by which the State was required to submit the plan or revision. If a completeness determination is not made by 6 months from receipt of a submittal, the submittal shall be deemed complete by operation of law on the date 6 months from receipt. A determination of completeness under this paragraph means that the submission is an official submission for purposes of § 51.103.

2.0. Criteria

The following shall be included in plan submissions for review by EPA:

2.1. Administrative Materials

(a) A formal signed, stamped, and dated letter of submittal from the Governor or his designee, requesting EPA approval of the plan or revision thereof (hereafter "the plan"). If electing to submit a paper submission with a copy in electronic version, the submittal letter must verify that the electronic copy provided is an exact duplicate of the paper submission.

(b) Evidence that the State has adopted the plan in the State code or body of regulations; or issued the permit, order, consent agreement (hereafter "document") in final form. That evidence shall include the date of adoption or final issuance as well as the effective date of the plan, if different from the adoption/issuance date.

(c) Evidence that the State has the necessary legal authority under State law to adopt and implement the plan.

(d) A copy of the actual regulation, or document submitted for approval and incorporation by reference into the plan, including indication of the changes made (such as redline/strikethrough) to the existing approved plan, where applicable. The submission shall include a copy of the official State regulation/document, signed, stamped, and dated

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by the appropriate State official indicating that it is fully enforceable by the State. The effective date of any regulation/document contained in the submission shall, whenever possible, be indicated in the regulation/document itself; otherwise the State should include a letter signed, stamped, and dated by the appropriate State official indicating the effective date. If the regulation/document provided by the State for approval and incorporation by reference into the plan is a copy of an existing publication, the State submission should, whenever possible, include a copy of the publication cover page and table of contents.

(e) Evidence that the State followed all of the procedural requirements of the State's laws and constitution in conducting and completing the adoption/issuance of the plan.

(f) Evidence that public notice was given of the proposed change consistent with procedures approved by EPA, including the date of publication of such notice.

(g) Certification that public hearing(s) were held in accordance with the information provided in the public notice and the State's laws and constitution, if applicable and consistent with the public hearing requirements in 40 CFR 51.102.

(h) Compilation of public comments and the State's response thereto.

2.2. Technical Support

(a) Identification of all regulated pollutants affected by the plan.

(b) Identification of the locations of affected sources including the EPA attainment/nonattainment designation of the locations and the status of the attainment plan for the affected areas(s).

(c) Quantification of the changes in plan allowable emissions from the affected sources; estimates of changes in current actual emissions from affected sources or, where appropriate, quantification of changes in actual emissions from affected sources through calculations of the differences between certain baseline levels and allowable emissions anticipated as a result of the revision.

(d) The State's demonstration that the national ambient air quality standards, prevention of significant deterioration increments, reasonable further progress demonstration, and visibility, as applicable, are protected if the plan is approved and implemented. For all requests to redesignate an area to attainment for a national primary ambient air quality standard, under section 107 of the Act, a revision must be submitted to provide for the maintenance of the national primary ambient air quality standards for at least 10 years as required by section 175A of the Act.

(e) Modeling information required to support the proposed revision, including input data, output data, models used, justification of model selections, ambient monitoring data used, meteorological data used, justification for use of offsite data (where used), modes of models used, assumptions, and other information relevant to the determination of adequacy of the modeling analysis.

(f) Evidence, where necessary, that emission limitations are based on continuous emission reduction technology.

(g) Evidence that the plan contains emission limitations, work practice standards and recordkeeping/reporting requirements, where necessary, to ensure emission levels.

(h) Compliance/enforcement strategies, including how compliance will be determined in practice.

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(i) Special economic and technological justifications required by any applicable EPA policies, or an explanation of why such justifications are not necessary.

2.3. Exceptions

2.3.1. The EPA, for the purposes of expediting the review of the plan, has adopted a procedure referred to as "parallel processing." Parallel processing allows a State to submit the plan prior to actual adoption by the State and provides an opportunity for the State to consider EPA comments prior to submission of a final plan for final review and action. Under these circumstances, the plan submitted will not be able to meet all of the requirements of paragraph 2.1 (all requirements of paragraph 2.2 will apply). As a result, the following exceptions apply to plans submitted explicitly for parallel processing:

(a) The letter required by paragraph 2.1(a) shall request that EPA propose approval of the proposed plan by parallel processing.

(b) In lieu of paragraph 2.1(b) the State shall submit a schedule for final adoption or issuance of the plan.

(c) In lieu of paragraph 2.1(d) the plan shall include a copy of the proposed/draft regulation or document, including indication of the proposed changes to be made to the existing approved plan, where applicable.

(d) The requirements of paragraphs 2.1(e)–2.1(h) shall not apply to plans submitted for parallel processing.

2.3.2. The exceptions granted in paragraph 2.3.1 shall apply only to EPA's determination of proposed action and all requirements of paragraph 2.1 shall be met prior to publication of EPA's final determination of plan approvability.

3.0. GUIDELINES

The EPA requests that the State adhere to the following voluntary guidelines when making plan submissions.

3.1 All Submissions

(a) The State should identify any copyrighted material in its submission, as EPA does not place such material on the web when creating the E–Docket for loading into the Federal Document Management System (FDMS).

(b) The State is advised not to include any material considered Confidential Business Information (CBI) in their SIP submissions. In rare instances where such information is necessary to justify the control requirements and emissions limitations established in the plan, the State should confer with its Regional Offices prior to submission and must clearly identify such material as CBI in the submission itself. EPA does not place such material in any paper or web-based docket. However, where any such material is considered emissions data within the meaning of Section 114 of the CAA, it cannot be withheld as CBI and must be made publicly available.

3.2 Paper Plan Submissions

(a) The EPA requires that the submission option of submitting one paper plan must be accompanied by an electronic duplicate of the entire paper submission, preferably as a word searchable portable document format (PDF), at the same time the paper copy is submitted. The electronic duplicate should be made available through email, from a File Transfer Protocol (FTP) site, from the State Web site, on a Universal Serial Bus (USB) flash drive, on a compact disk, or using another format agreed upon by the State and Regional Office.

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(b) If a state prefers the submission option of submitting three paper copies and has no means of making an electronic copy available to EPA, EPA requests that the state confer with its EPA Regional Office regarding additional guidelines for submitting the plan to EPA.

Credits

[55 FR 5830, Feb. 16, 1990; 56 FR 42219, Aug. 26, 1991; 56 FR 57288, Nov. 8, 1991; 72 FR 38793, July 16, 2007; 80 FR 7340, Feb. 10, 2015]

AUTHORITY: 23 U.S.C. 101; 42 U.S.C. 7401–7671q.

Current through September 27, 2018; 83 FR 48729

End of Document

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Code of Federal Regulations
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 51. Requirements for Preparation, Adoption, and Submittal of Implementation Plans (Refs & Annos)
Subpart P. Protection of Visibility (Refs & Annos)

40 C.F.R. § 51.300

§ 51.300 Purpose and applicability.

Effective: January 10, 2017
Currentness

(a) Purpose. The primary purposes of this subpart are to require States to develop programs to assure reasonable progress toward meeting the national goal of preventing any future, and remedying any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from manmade air pollution; and to establish necessary additional procedures for new source permit applicants, States and Federal Land Managers to use in conducting the visibility impact analysis required for new sources under § 51.166. This subpart sets forth requirements addressing visibility impairment in its two principal forms: "reasonably attributable" impairment (i.e., impairment attributable to a single source/small group of sources) and regional haze (i.e., widespread haze from a multitude of sources which impairs visibility in every direction over a large area).

(b) Applicability The provisions of this subpart are applicable to all States as defined in section 302(d) of the Clean Air Act (CAA) except Guam, Puerto Rico, American Samoa, and the Northern Mariana Islands.

Credits
[64 FR 35763, July 1, 1999; 82 FR 3122, Jan. 10, 2017]

AUTHORITY: 23 U.S.C. 101; 42 U.S.C. 7401–7671q.; Secs. 110, 114, 121, 160–169, 169A, and 301 of the Clean Air Act, (42 U.S.C. 7410, 7414, 7421, 7470–7479, and 7601).

Notes of Decisions (7)

Current through September 27, 2018; 83 FR 48729

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CASE NO. 18-60116

IN THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

SIERRA CLUB; NATIONAL PARKS CONSERVATION ASSOCIATION; ENTERGY LOUISIANA, LLC, Petitioners,

VERSUS

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY; ANDREW WHEELER, Acting Administrator, United States Environmental Protection Agency, Respondents

---

On Petition for Review of Final Action of the
United States Environmental Protection Agency

FINAL PRINCIPAL BRIEF OF PETITIONER ENTERGY LOUISIANA, LLC AND INTERVENOR CLECO POWER LLC

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CERTIFICATE OF INTERESTED PERSONS

The undersigned counsel of record certifies that the following listed persons and entities as described in the fourth sentence of Fifth Circuit Rule 28.2.1 have an interest in the outcome of this case. These representations are made so that the judges of this court may evaluate possible disqualification or recusal.

- Baker Botts L.L.P.
- Berge, Megan H. (Counsel for Cleco Power LLC)
- Bumpers, William M. (Counsel for Entergy Louisiana, LLC)
- Cleco Corporate Holdings LLC (Parent company of Cleco Power LLC)
- Cleco Group LLC (Holder of all outstanding equity of Cleco Corporate Holdings LLC)
- Cleco Partners L.P. (Parent company of Cleco Group LLC)
- Cleco Power LLC (Intervenor)
- Entergy Corporation (Parent company of Entergy Utility Holding Company, LLC)
- Entergy Louisiana, LLC (Petitioner)
- Entergy Services, Inc.
- Entergy Utility Holding Company, LLC (parent company of Petitioner)
- Fichthorn, Norman W. (Counsel for Intervenor the Utility Air Regulatory Group)

- Floyd, Susan Margaret (Counsel for Entergy Louisiana, LLC)
- Flynn, Aaron M. (Counsel for Intervenor the Utility Air Regulatory Group)
- Garbow, Avi S. (Counsel for Respondent)
- Gerhart, Matthew (Counsel for Sierra Club and National Parks Conservation Association)
- Idsal, Anne L., Regional Administrator, U.S. EPA Region 6
- Jezouit, Debra J. (Counsel for Entergy Louisiana, LLC)
- Leopold, Matthew Z., General Counsel, U.S. Environmental Protection Agency (Counsel for Respondent)
- Mallick, Allison Watkins (Counsel for Entergy Louisiana, LLC)
- McPhedran, Charles (Counsel for Sierra Club and National Parks Conservation Association)
- National Parks Conservation Association (Petitioner)
- Sessions, Jeffrey B., Attorney General, U.S. Department of Justice (Counsel for Respondent)
- Sierra Club (Petitioner)
- Smith, Joshua (Counsel for Sierra Club and National Parks Conservation Association)
- Wheeler, Andrew R., Acting Administrator, U.S. Environmental Protection Agency (Respondent)

- U.S. Environmental Protection Agency (Respondent)
- The Utility Air Regulatory Group (Intervenor)
- Walters, Michele L. (Counsel for Respondent)
- Wilson, Emily J. (Counsel for Cleco Power LLC)
- Wood, Jeffrey, Acting Assistant Attorney General, Environmental and Natural Resources Division, U.S. Department of Justice (Counsel for Respondent)

The undersigned counsel of record certifies that Entergy Louisiana, LLC is a wholly owned subsidiary of Entergy Utility Holding Company, LLC, which is an indirectly owned subsidiary of Entergy Corporation. Entergy Utility Holding Company, LLC owns all the common units of Entergy Louisiana, LLC.

The undersigned counsel of record certifies that Cleco Power LLC is a wholly owned subsidiary of Cleco Corporate Holdings LLC, which has no common stock outstanding. All of the outstanding equity of Cleco Corporate Holdings LLC is held by Cleco Group LLC, a wholly owned subsidiary of Cleco Partners L.P.

Dated: December 18, 2018

Respectfully submitted,

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s/ Megan H. Berge
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Counsel for Cleco Power LLC

STATEMENT REGARDING ORAL ARGUMENT

Petitioner Entergy Louisiana, LLC and Intervenor-Petitioner Cleco Power LLC respectfully request 30 minutes per side for oral argument. Oral argument will assist fair consideration of the complicated legal issues, highly technical facts, and a voluminous administrative record and will enable the parties to fully address the Court's questions and concerns.

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GLOSSARY

APA	Administrative Procedure Act
BART	Best Available Retrofit Technology
CAA or the Act	Clean Air Act
CENRAP	Central Regional Air Planning Association
dv	Deciview
EPA or the Agency	U.S. Environmental Protection Agency
FIP	Federal Implementation Plan
IMPROVE	Interagency Monitoring of Protected Visual Environments
IWAQM	Interagency Workgroup on Air Quality Modeling
Km	Kilometer
lb/mmBtu	Pounds per million British thermal units
LDEQ	Louisiana Department of Environmental Quality
NOx	Nitrogen oxides
NO_2	Nitrogen dioxide
SIP	State Implementation Plan
SO_2	Sulfur dioxide

JURISDICTIONAL STATEMENT

EPA published a final rule on December 21, 2017, entitled "Approval and Promulgation of Implementation Plans; Louisiana; Regional Haze State Implementation Plan." 82 Fed. Reg. 60,520 (Dec. 21, 2017) ("Final Rule"), Index #7, App.18.[1] Petitioner Entergy Louisiana, LLC ("Entergy" or "Petitioner") filed with this Court a petition for review of the Final Rule on February 20, 2018, within the 60-day period prescribed by Section 307(b)(1) of the Clean Air Act ("CAA"), 42 U.S.C. § 7607(b)(1). Doc. No. 00514355991. Because the Final Rule applies only to Louisiana, this Court has jurisdiction as "the United States Court of Appeals for the appropriate circuit." *Id.* Intervenor Cleco Power LLC ("Cleco" or "Intervenor-Petitioner") timely filed its Motion to Intervene on March 23, 2018. Fifth Circuit Rule 15.5. Doc. No. 0514400466. The Court granted Cleco's motion on April 5, 2018. Doc. No. 0514416281.

The Louisiana Regional Haze State Implementation Plan ("SIP"), which EPA approved in the Final Rule, establishes requirements for several power plants in Louisiana, including the Roy S. Nelson Power Plant ("Nelson"), which is owned and operated by Entergy, and the Brame Energy Center ("Brame"), which is owned and

[1] This Brief cites documents listed in EPA's certified index of record materials (cited as "Index #__, App. __"). An appendix of these materials will be filed separately in accordance with 5th Cir. R. 30.2(a).

operated by Cleco.[2] 82 Fed. Reg. at 60,523-24, Index #7, App.18. As a result of the Final Rule's approval of the Louisiana Regional Haze SIP, Unit 6 at Nelson must comply with federally enforceable emissions limits.[3] *Id.* at 60,524, Index #7, App.18. The Final Rule also approves emissions limitations for two units at Brame: Nesbitt I and Rodemacher II (collectively, the "Brame Units"). *Id.* at 60,524, Index #7, App.18. Accordingly, Entergy and Cleco each have standing as a result of concrete and particularized injury that is fairly traceable to the Final Rule and that will be redressed by a decision that vacates the Final Rule in relevant part. *See, e.g.*, *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 561-62 (1992).

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[2] Entergy also owns and operates four other power plants that are subject to the Louisiana Regional Haze SIP: Waterford, Willow Glen, Ninemile Point and Little Gypsy. Entergy is not challenging EPA's approval of Louisiana's SIP with respect to these plants.

[3] The Final Rule approves Louisiana's determination that emissions limits are not necessary for the other two emissions units at the Nelson facility due to the low emissions from these units. 82 Fed. Reg. at 60,523, Index #7, App.18.

STATEMENT OF ISSUES

1. Whether EPA's approval of Louisiana's "subject to BART" determinations for Nelson and Brame is arbitrary and capricious in light of Louisiana's reliance on CALPUFF modeling for the determinations, even though EPA had previously found CALPUFF to be rife with technical problems and unreliable at the modeled distances.

2. Whether EPA's approval of Louisiana's use of CALPUFF modeling results for Nelson that are within the model's margin of error is arbitrary and capricious.

3. Whether EPA's reliance on its own CAMx modeling (that Louisiana did not consider) in its approval of the Nelson and Brame determinations exceeds the Agency's authority under the Clean Air Act.

4. Whether EPA's reliance on CAMx modeling results in its approval of the Nelson and Brame determinations is arbitrary and capricious due to EPA's unreasonable modeling methodology, which produced clearly flawed results.

INTRODUCTION

This petition for review challenges EPA actions under the Clean Air Act's "regional haze" program. Under that program, states must submit State Implementation Plans ("SIPs") that address manmade air pollution in certain national parks, wilderness areas, and national memorial parks. Among other things, a SIP must assess whether major stationary sources—such as power plants—should be made subject to heightened emissions controls known as BART, or Best Available Retrofit Technology. A finding that a source is "subject to BART" may impose heavy costs on the source's owner. Consequently, a SIP may only find a source subject to BART if there is reliable evidence that the source's emissions "may reasonably be anticipated" to impair visibility in a protected area. 42 U.S.C. § 7491(b)(2)(A). EPA must then perform an independent review of the SIP's analysis—with all the rigor demanded by the Administrative Procedures Act ("APA")—and decide whether to approve the "subject to BART" findings contained in the SIP.

In this case, Louisiana submitted a SIP that determines certain power plants are subject to BART for the first time. Petitioner Entergy and Intervenor-Petitioner Cleco operate two of these plants. EPA approved the SIP's findings. EPA's action, however, was plagued with serious substantive and procedural errors. Because EPA acted arbitrary and capriciously and contrary to law, its approval of the SIP's

"subject to BART" findings with respect to Entergy and Cleco's power plants must be vacated.

Louisiana based its determinations on a model known as CALPUFF, which purported to show that Entergy and Cleco's plants harmed visibility in protected areas over 400 kilometers away. EPA's own modeling guidelines, however, warn that CALPUFF cannot produce "reasonable" results at distances over 300 kilometers. Thus, in past regional haze actions, EPA declined to rely on CALPUFF at longer distances. Yet here EPA approved Louisiana's reliance on CALPUFF—a model that cannot generate "*reasonable*" results at extended distances—to make its finding that these sources "may *reasonably* be anticipated" to impair visibility. This oxymoron must not be permitted to stand.

EPA compounded its errors by failing to reconcile its past statements and actions evidencing CALPUFF's unreliability with its CALPUFF-based approval of Louisiana's SIP. This is just the tip of the iceberg when it comes to EPA's procedurally defective use of CALPUFF, which is discussed more fully below. In sum, despite numerous EPA statements admitting CALPUFF's various shortcomings—and comments from Entergy and Cleco illustrating how those problems manifested here—EPA forged ahead, declining to address the model's flaws and failing to respond forthrightly to critiques of CALPUFF's results.

EPA also relied on a second type of modeling known as CAMx, which EPA alone employed (the SIP relied exclusively on CALPUFF). While preferable to CALPUFF in certain respects, CAMx has its own vulnerabilities, which EPA has acknowledged. Yet EPA again refused to adjust its model to account for these deficiencies. Nor would it test CAMx's results against real-world "relative response factors," as EPA had done in past rulemakings. While no model is perfect, EPA's failure to confront and account for CAMx's weaknesses rendered its actions arbitrary and capricious. EPA's inadequate response to comments identifying these problems and its inability to reconcile its current course with past agency approaches violated the APA.

EPA will correctly note that its scientific determinations generally receive deference. But this deference cannot excuse arbitrary and capricious rulemaking and failure to comply with bedrock APA norms. Critically, the Regional Haze Program requires states to submit SIP revisions periodically, with the next revisions due in 2021, then again in 2028, and every 10 years thereafter, and EPA's continued use of unreliable data and inconsistent modeling could create faulty policy for decades. Accordingly, the dispute here is not primarily a scientific one, but a procedural one. Even an expert agency must refrain from relying on *concededly* unreliable data, explain its judgment calls, face up to inconsistent past actions, and

respond to critiques of its approach. Anything less falls short of what the law requires.

STATEMENT OF THE CASE

I. The Clean Air Act's Regional Haze Program

The Clean Air Act ("CAA") establishes the Regional Haze Program, which sets a long-term national goal of eliminating visibility impairment that results from manmade air pollution (i.e., "regional haze") in national parks and wilderness areas designated as "Class I areas" by 2064.[4] 42 U.S.C. § 7491. Congress tasked EPA with promulgating regulations requiring states to develop SIPs designed to achieve this long-term national goal. *Id.* § 7491(a)(4). SIPs must include "emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward" this national goal. *Id.* § 7491(b)(1), (2). A state's obligations continue under the program after developing its initial SIP. To meet the program's goal of eliminating visibility impairment by 2064, a state must submit revised SIPs in 2021, 2028, and every ten years thereafter. 40 C.F.R. § 51.308(f).

For certain large stationary sources of emissions built between 1962 and 1977 that "may reasonably be anticipated to cause or contribute to" visibility impairment in any Class I area, the Act requires SIPs to mandate the installation of BART to control emissions. 42 U.S.C. § 7491(b)(2)(A). Pursuant to EPA's BART

[4] "Class I areas" are national parks exceeding 6,000 acres, wilderness areas and national memorial parks exceeding 5,000 acres, and all international parks that were in existence on August 7, 1977. 64 Fed. Reg. 35,714, 35,715, n.4 (July 1, 1999).

Guidelines, states must establish a threshold for determining whether a source "may reasonably be anticipated to cause or contribute to" visibility impairment in a Class I area and thus be considered "subject to BART." *See* 40 C.F.R. Pt. 51, App. Y, section III.A.1. The Guidelines specify that the threshold below which a source would not be considered subject to BART should not be less than 0.5 "deciviews."[5] *Id.* EPA approved the use of a threshold of 0.5 dv for Louisiana sources in 2012. 77 Fed. Reg. 11,839, 11,844 (Feb. 28, 2012).

States use computer modeling programs to determine whether emissions from a source exceed the deciview threshold, thus rendering them subject to BART. EPA's BART Guidelines recommend the use of CALPUFF modeling to perform this evaluation, as it was the best available model for this purpose when the Guidelines were promulgated in 2005. BART Guidelines, 70 Fed. Reg. 39,104, 39,122 (July 6, 2005); 40 C.F.R. Pt. 51, App. Y, section III.A.3. That recommendation is now over 13 years old. EPA removed CALPUFF from its list of approved models for CAA regulatory purposes in 2017 in recognition of the model's shortcomings. 82 Fed. Reg. 5,182, 5,196 (Jan. 17, 2017) (final rule); 80 Fed. Reg. 45,340, 45,349 (July 29, 2015) (proposed rule) (noting "the availability of more

[5] A deciview ("dv") is the metric used by EPA to measure visibility impairment. According to EPA, "each deciview change is an equal incremental change in visibility perceived by the human eye. Most people can detect a change in visibility at one deciview." *See* 77 Fed. Reg. 30,248, 30,250 (May 22, 2012).

appropriate modeling techniques, such as photochemical transport models (which address limitations of models like CALPUFF)."). EPA specifically noted the superiority of the CAMx model for evaluating the formation of haze due to its more sophisticated capabilities. 80 Fed. Reg. at 45,347. Nonetheless, EPA permitted the ongoing use of CALPUFF for BART determinations so that states would not be required to re-conduct modeling using a new modeling program. *Id.* at 45,350.

A determination that a source is subject to BART has real-world consequences. The source must be evaluated for BART controls based on five statutory factors, including the costs of compliance, the remaining useful life of the source, and the degree of visibility improvement that may reasonable be anticipated to result from the use of such technology. 42 U.S.C. § 7491(g)(2). For a power plant like Nelson or Brame, BART controls often require the installation and operation of equipment that reduces emissions, potentially at the cost of millions or even hundreds of millions of dollars. Once a state determines the controls that constitute BART, it establishes an emission limit for the source based on the emissions reductions that would be achieved through the installation of the BART controls.

Upon completion, states submit their SIPs to EPA for approval. If the SIP fails to satisfy the minimum criteria of the CAA, EPA must promulgate a federal implementation plan ("FIP") within two years, unless the state corrects the deficiency. 42 U.S.C. § 7410(c)(1).

II. Procedural History

The current Louisiana Regional Haze SIP, which the Final Rule approves, has been many years in the making. The Louisiana Department of Environmental Quality ("LDEQ") began working on "subject to BART" determinations after EPA partially disapproved portions of an earlier version of the SIP that Louisiana submitted in 2008. *See* 77 Fed. Reg. 33,642 (June 7, 2012); 77 Fed. Reg. 39,425 (July 3, 2012). In 2015, with the Louisiana "subject to BART" determinations still forthcoming, EPA began to prepare for the possibility that it might be required to develop a regional haze FIP for Louisiana. On May 19, 2015, EPA sent information request letters pursuant to its authority under Section 114 of the CAA to several emissions sources in Louisiana, requiring them to conduct CALPUFF modeling to determine if the sources were subject to BART. *See* Entergy 114 Letter, Index #5.84, App.15; Cleco 114 Letter, Index #5.82, App.14. The letters specified that the modeling must address emissions of sulfur dioxide ("SO_2") and nitrogen oxides ("NOx"), *see id.*, which can undergo chemical reactions in the atmosphere to form haze.

Entergy and Cleco performed the requested CALPUFF analyses and submitted the results to both EPA and LDEQ. These results indicated that emissions of SO_2 and NOx from Nelson and Brame, respectively, were predicted to cause visibility impairment greater than Louisiana's 0.5 dv subject-to-BART threshold for

the nearest Class I areas – the Breton Class I Area ("Breton") and the Caney Creek Class I Area ("Caney Creek"). *See* Entergy Updated BART Applicability Screening Analysis at 3-10 (Nov. 9, 2015), Index #21.45, App.32; Cleco CALPUFF Modeling Report at 1-2 (July 30, 2015), Index #21.25, App.28. However, both Entergy and Cleco raised concerns about the technical limitations of the CALPUFF model and the reliability of its results, and performed CAMx modeling to address them. The CAMx modeling indicated that neither Nelson's nor Brame's emissions had an impact greater than the 0.5 dv threshold on visibility at the nearest Class I areas and, thus, they should not be considered subject to BART. Entergy Updated BART Applicability Screening Analysis at 5-1, Index #21.45, App.32; *See* Trinity Report for Cleco (June 19, 2017), at 1.1, Index #132, App.51 (discussing modeling assessment submitted on January 14, 2016). In response to feedback on their CAMx modeling protocols from EPA, Entergy and Cleco revised their modeling methodologies and re-submitted the results, which confirmed their earlier determinations that the units are not subject to BART. *See* June 2017 Entergy Comments at 3, Index #141, App.52 (discussing report conducted by Trinity Consultants for Entergy, submitted on June 24, 2016); Trinity/ALL4 CAMx Modeling Report for Entergy (Oct. 14, 2016), Index #21.85, App.37; Letter from Cleco to Vivian Aucoin and Vennetta Hayes (Oct. 10, 2016) (discussing revised modeling results submitted on June 1, 2016), Index #21.29, App.30. EPA also

performed its own CALPUFF and CAMx modeling, which indicated that Nelson and Brame exceed the 0.5 dv threshold and sent the results to LDEQ. *See* Appendix F to 2017 Louisiana Regional Haze SIP Submittal, Index #22.8, App.39, Index #22.23, App.41.

LDEQ submitted to EPA its "subject to BART" determinations for the power plants in the state, including Nelson and Brame, in February 2017 and June 2017. February 2017 SIP Submittal, Index #21, App.24; June 2017 SIP Submittal, Index #22, App.38. The determinations relied upon the submitted CALPUFF modeling. *Id. See also* Proposed Cleco Approval, 82 Fed. Reg. 22,936, 22,941 (May 19, 2017), Index #4, App.2; Proposed Nelson Approval, 82 Fed. Reg. 32,294, 32,296 (July 13, 2017), Index #6, App.17. Based on the CALPUFF modeling, LDEQ determined that both Nelson and Brame exceeded the 0.5 dv threshold for determining whether a source is subject to BART. *Id.* Accordingly, LDEQ conducted an analysis to determine BART for each plant and set emission limits based on the installation of BART. *Id.* LDEQ acknowledged, but did not rely on, the CAMx modeling provided by Entergy, Cleco, and EPA in making its "subject to BART" determinations. February 2017 SIP Submittal at 10, Index #21, App.24; June 2017 SIP Submittal at 5, Index #22, App.38; October 2017 SIP Submittal at 5, Index #14.1, App.23. *See also* 82 Fed. Reg. at 60,525.

EPA proposed two separate rules to approve LDEQ's "subject to BART" determinations and associated BART emission limits. In May 2017, EPA proposed to approve the determination for Brame and its associated SO_2 BART emissions limits.[6] 82 Fed. Reg. 22,936 (May 19, 2017), Index #4, App.2. In July 2017, EPA proposed to approve the Nelson "subject to BART" determination and its associated SO_2 BART emission limit. 82 Fed. Reg. 32,294 (July 13, 2017), Index #6, App. 17. In support of its proposed approvals, EPA accepted LDEQ's use of CALPUFF modeling but also relied upon its own CAMx modeling. 82 Fed. Reg. at 22,942, 22,943, Index #4, App.2.

Entergy and Cleco each submitted extensive comments on EPA's proposed approvals of the Louisiana SIP submittals. June 2017 Entergy Comments, Index #141, App.52; August 2017 Entergy Comments, Index #69, App.45; June 2017 Cleco Comments, Index #130, App.50. Both Entergy and Cleco disputed LDEQ's use of CALPUFF modeling on the grounds that CALPUFF tends to overpredict the impacts of certain emissions and is highly inaccurate when applied to the significant distances at which Nelson and Brame are located from the nearest Class I areas. June 2017 Entergy Comments at 11, Index #141, App.52; June 2017 Cleco Comments at 5, Index #130, App.50. Entergy and Cleco also identified significant errors in the

[6] EPA also approved LDEQ's determination that power plants in the state, including Nelson and Brame, could rely on an inter-state NOx emissions trading program as an alternative to BART for NOx.

CAMx modeling performed by EPA as part of its review of the Louisiana SIP submittals. June 2017 Entergy Comments at 16, Index #141, App.52; Trinity Report for Cleco at 4.1 (June 19, 2017), Index #132, App.51.

On December 21, 2017, EPA took final action on the proposed rules. 82 Fed. Reg. at 60,520, Index #7, App.18. As proposed, the Final Rule approves LDEQ's determination that Nelson and Brame have visibility impacts greater than 0.5 dv at Class I areas and are therefore subject to BART. *Id.* at 60,524, Index #7, App.18.

SUMMARY OF ARGUMENT

The Final Rule's approval of LDEQ's "subject to BART" determinations for Nelson and Brame are arbitrary and capricious and contrary to law. The approval is based on fatally flawed CALPUFF and CAMx modeling that is inconsistent with prior EPA determinations. EPA failed to adequately explain its departure from these past actions, failed to address clear problems with the modeling methodologies and results, and failed to adequately respond to Entergy and Cleco's critiques of the modeling. EPA's procedural errors resulted in its approval of faulty "subject to BART" determinations; properly conducted modeling performed by Entergy and Cleco reveal that Nelson and Brame should *not* be subject to BART.

LDEQ's determinations that Nelson and Brame are "subject to BART" are based on highly unreliable CALPUFF modeling, rendering EPA's approval arbitrary and capricious. EPA had identified CALPUFF's substantial defects and shortcomings in prior actions—even removing CALPUFF as an approved model in part due to these issues—yet failed to consider them here. Most significant is CALPUFF's inability to reliably predict visibility impacts at locations more than 300 kilometers ("km") from an emission source. Despite having acknowledged this limitation in its own guidance and prior rulemakings, EPA here approved the use of CALPUFF to predict visibility impacts at Class I areas located between *352 and 460 km* from Nelson and Brame. EPA also failed to account for CALPUFF's

overestimation of visibility impacts. CALPUFF uses overly simplistic assumptions that do not consider important environmental and chemical factors that influence the transformation of emissions into haze. Finally, LDEQ's CALPUFF modeling predicted visibility impacts from Nelson that are so insignificant that they are within the margin of error for the model; in other words, they are too small for the model to predict with any confidence.

Recognizing these weaknesses in the CALPUFF modeling, EPA attempted to bolster its decision using the results of its own CAMx modeling. EPA has no authority under the CAA to cure a deficiency in the SIP submittal using its own analysis. Even if this were permissible, the CAMx modeling cannot provide the necessary support for EPA's approval, as it is deficient due to EPA's use of arbitrary and capricious inputs and outputs. EPA inappropriately input hypothetical maximum emission rates instead of actual emission rates and relied upon direct outputs from the model without properly calibrating these outputs. EPA's methodology distorts the CAMx modeling results and inaccurately predicts visibility impacts from Nelson and Brame. The impact of this improper methodology was made clear in EPA's own assessment of its modeling results, which concluded that the model generally over-predicted how much Nelson and Brame contributed to haze in nearby Class I areas. Entergy and Cleco provided their own CAMx modeling that addressed these flaws, demonstrating that the plants are not reasonably anticipated

to cause visibility impacts at the nearest Class I areas, and therefore should not be subject to BART.

For these reasons, the Final Rule's approval of the Louisiana SIP's provisions pertaining to Nelson and Brame should be vacated.

ARGUMENT

I. Standard of Review

The APA requires that the Final Rule be vacated if it is "arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law," or if it is "contrary to constitutional right; in excess of statutory jurisdiction, authority, or limitation; or without procedure required by law." *Louisiana ex rel. Guste v. Verity*, 853 F.2d 322, 326 (5th Cir. 1988). *See also* 5 U.S.C. § 706(2)(A)-(D); *Coastal Conservation Ass'n v. U.S. Dep't of Com.*, 846 F.3d 99, 110-11 (5th Cir. 2017).

Agency action is arbitrary and capricious if:

> the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.

Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983). Accordingly, courts consider whether the agency's decision was "based on a consideration of the relevant factors and whether there has been a clear error of judgment." *Nueces Cty. Nav. Dist. No. 1 v. I.C.C.*, 674 F.2d 1055, 1062 (5th Cir. 1982) (internal quotations omitted) (citing *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402, 416 (1971)). Courts must ensure that "the agency examined the relevant data and articulated a satisfactory explanation for its action." *10 Ring*

Precision, Inc. v. Jones, 722 F.3d 711, 723 (5th Cir. 2013) (internal quotations omitted) (citing *Motor Vehicle Mfrs. Ass'n*, 463 U.S. at 43).

Agency actions that are inconsistent with prior agency policy, as is the Final Rule, must provide an adequate explanation for the inconsistency. Actions that implement a policy change are arbitrary and capricious unless there are "good reasons" for the change and the agency believes "that the new policy is better, which the conscious change of course adequately indicates." *Handley v. Chapman*, 587 F.3d 273, 282 (5th Cir. 2009) (internal quotations omitted) (citing *FCC v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009)). *See also Cent. Power & Light Co. v. United States*, 634 F.2d 137, 174 (5th Cir. 1980) ("When an agency desires to depart from its prior norms or from a prior statutory interpretation, it must clearly set forth its reasons."); *Dillmon v. NTSB*, 588 F.3d 1085, 1089-90 (D.C. Cir. 2009) ("Reasoned decision making . . . necessarily requires the agency to acknowledge and provide an adequate explanation for its departure from established precedent.") (citing *FCC v. Fox*, 556 U.S. at 515).

Further, the agency must consider significant comments made by the public during the rulemaking process. *10 Ring Precision, Inc. v. Jones*, 722 F.3d at 724. "[U]nder the arbitrary and capricious standard of review, an agency is . . . required to respond to significant comments that cast doubt on the reasonableness of the rule the agency adopts." *Baltimore Gas and Elec. Co. v. United States*, 817 F.2d 108,

116 (D.C. Cir. 1987) (internal citations and quotations omitted). When an agency's failure to respond to comments demonstrates that the agency's decision was not "based on a consideration of the relevant factors," the agency's decision is arbitrary and capricious. *See Sherley v. Sebelius*, 689 F.3d 776, 784 (D.C. Cir. 2012) (internal quotations and citations omitted).

This Court has described application of the standard of review as a "searching and careful" review of the administrative record to determine "whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." *See Avoyelles Sportsmen's League, Inc. v. Marsh*, 715 F.2d 897, 904 (5th Cir. 1983) (internal quotations omitted) (quoting *Citizens to Preserve Overton Park, Inc.*, 401 U.S. at 416).

II. EPA's approval of LDEQ's reliance on CALPUFF for the "subject to BART" determinations is arbitrary and capricious

EPA's approval of LDEQ's use of CALPUFF to support its "subject to BART" determinations is unjustifiably inconsistent with prior EPA actions and fails to account for fundamental flaws in the model. According to EPA, CALPUFF modeling supports a conclusion that Nelson and Brame contribute visibility impacts greater than 0.5 dv at Class I areas and therefore are "subject to BART." 82 Fed. Reg. at 60,525, Index #7, App.18. EPA ignores CALPUFF's significant defects, which the Agency itself previously recognized, rendering it an unreasonable basis for EPA's approval of LDEQ's "subject to BART" determinations. First, EPA

ignored its own prior determination that CALPUFF is unreliable when used to model the visibility impacts at Class I areas located more than 300 km from the emissions source, as is the case for Nelson and Brame. Second, EPA failed to adequately address evidence that CALPUFF overestimates visibility impacts—evidence that EPA previously acknowledged. Third, EPA has not explained its rejection of Entergy's analysis demonstrating that the predicted visibility impacts from Nelson are within the margin of error for the CALPUFF model – in other words, they are too small for the model to be able to reliably predict. EPA has failed to provide a reasonable basis for ignoring these shortcomings, rendering its reliance on CALPUFF arbitrary and capricious.

A. Use of CALPUFF for Nelson and Brame exceeds the model's distance limitations

EPA's approval of LDEQ's "subject to BART" determinations is inconsistent with the Agency's prior determination that CALPUFF is highly unreliable when assessing visibility impacts from sources located more than 300 km from the nearest Class I area. This is the case for Nelson, which is located 425 km from Breton and 460 km from Caney Creek. EPA's Modeling Response to Comments at 34 (November 2017), Index #5.20, App.7 (hereinafter "Modeling TSD"). It also is the case for Brame, which is located 422 km from Breton and 352 km from Caney Creek. *Id.* EPA has failed to explain how such unreliable results can be used to determine that visibility impairment from Nelson and Brame can reasonably be anticipated. It

also has not provided a reasonable explanation for proceeding inconsistently with its prior assessments of CALPUFF's distance limitations.

EPA has long recommended the use of CALPUFF for situations involving distances *less than 300 km*. EPA's Interagency Workgroup on Air Quality Modeling ("IWAQM") has noted that "there are serious conceptual concerns with the use of puff dispersion [models like CALPUFF] for very long-range transport (300 km and beyond)."[7] *See* June 2017 Entergy Comments at 13, Index #141, App.52. IWAQM ultimately concluded that use of CALPUFF for "transport beyond 200 to 300 km should be done cautiously with an awareness of the likely problems involved."[8] *See id.* EPA identified this limitation in its modeling guidelines, which state that the "CALPUFF dispersion model…*performed in a reasonable manner…so long as the transport distance was limited to less than 300km*."[9] *See* August 2017 Entergy Comments at 3 (emphasis added), Index #69, App.45.

EPA's past recognition of CALPUFF's unreliability at distances greater than 300 km renders its action here arbitrary and capricious for two reasons. First, a

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[7] EPA, Interagency Workgroup on Air Quality Modeling (IWAQM) Phase 2 Summary Report and Recommendations for Modeling Long Range Transport Impacts, at 18 (Dec. 1998), Publication No. EPA-454/R-98-019 ("IWAQM Report").

[8] *Id.*

[9] Final Rule, Revision to the Guideline on Air Quality Models: Adoption of a Preferred Long Range Transport Model and Other Revisions, 68 Fed. Reg. 18,458 (Apr. 15, 2003), 40 C.F.R. Pt. 51, App. W.

source is subject to BART if it "emits any air pollutant which may *reasonably be anticipated* to cause or contribute to any impairment of visibility in any mandatory Class I Federal area." 40 C.F.R. § 51.308(e)(1)(ii) (emphasis added). EPA has determined that CALPUFF does not perform "in a reasonable manner" at distances greater than 300 km. CALPUFF therefore cannot be used to determine that a source can "reasonably be anticipated" to cause or contribute to visibility impairment.

Second, EPA adhered to the recommended 300 km distance limit in past regional haze actions, and has not reasonably explained its departure from this past practice. There are numerous instances in which EPA appropriately set the CALPUFF distance limitation at 300 km, including in several recent regional haze rulemaking actions. *See* Final Arkansas Regional Haze Federal Implementation Plan ("FIP"), 81 Fed. Reg. 66,332, 66,394 (Sept. 27, 2016) (noting that "there are concerns in using CALPUFF for modeling impacts at distances much greater than 300 km from the source" and determining CALPUFF to be appropriate because the modeled distances involved were "well within" the recommended 300 km limit); New Mexico Regional Haze SIP, 79 Fed. Reg. 60,978, 60,983 (Oct. 9, 2014) (supporting state's decision to exclude from the analysis Class I areas that were located more than 300 km from modeled sources on the basis that "CALPUFF results are less reliable at distances greater than 300 km"); EPA, Response to Comments for the Federal Register Notice for the Texas and Oklahoma Regional

Haze State Implementation Plans; Interstate Visibility Transport State Implementation Plan to Address Pollution Affecting Visibility and Regional Haze; and FIP for Regional Haze, at 560-62 (Dec. 9, 2015), Docket No. EPA-R06-OAR-2014-0754-0087 (defending EPA's reliance on CAMx in part because use of CALPUFF beyond 300 km "raises concerns.").

EPA's failure to follow its own guidance and past practice renders its approval of the Nelson and Brame "subject to BART" determinations arbitrary and capricious. While an agency is not permanently bound to follow prior actions, it must provide a reasonable explanation for departing from its past guidance or practices. *Handley v. Chapman*, 587 F.3d at 282; *Cent. Power & Light Co.*, 634 F.2d at 150, 174. EPA has failed to provide such a reasonable explanation here, as the Agency's explanations for why it chose in this instance to extend the use of CALPUFF to a range *exceeding 400 km* fail to comport with the IWAQM's admonishment that use of the model in such circumstances should be done cautiously and with an "awareness of the problems involved."[10] *See* Entergy June 2017 Comments at 13, Index #141, App.52. First, EPA states that CALPUFF may still provide useful results for sources beyond the 300 km range "with some additional consideration of relevant issues such as stack height, size of emissions, etc." Modeling RTC at 38 n.133, Index #5.20, App.7. But EPA never undertakes this "additional

[10] IWAQM Report at 18 (Dec. 1998).

consideration," failing to explain how these "relevant issues" are, in fact, relevant, or how they were considered with respect to Nelson or Brame. *See id.* Next, EPA states that the modeled impacts for Nelson and Brame exceeded 1 deciview at both Breton and Caney Creek. Modeling RTC at 38 n.133, Index #5.20, App.7. EPA seems to imply that this result means that any unreliability in CALPUFF can simply be ignored. However, EPA never explains how a visibility impact greater than 1 deciview can overcome the model's shortcomings. *See id.* Finally, EPA refers to its own CAMx modeling to "address possible concerns with utilizing CALPUFF to assess visibility impacts at Class I areas located far from these emission sources." *Id.* at 39, Index #5.20, App.7. As described below in Section III, EPA cannot rely on its CAMx modeling, which contains its own fatal flaws, to cure the defects in the CALPUFF modeling.

While EPA, in rare circumstances, has allowed the use of CALPUFF results beyond 400 km, it acknowledges that such results have lower confidence levels.[11]

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[11] EPA cites as examples its FIP for Texas, 82 Fed. Reg. 48,324 (Oct. 17, 2017), as well as the South Dakota BART determination for Big Stone, 76 Fed. Reg. 76,656 (Dec. 8, 2011) and Nebraska's "subject to BART" assessment, 77 Fed. Reg. 40,150 (Jul. 6, 2012). *See* Modeling RTC at 3, 7, Index #5.20, App.7. These applications are distinct from the situation in Louisiana. The Texas action is inapposite, as EPA used CALPUFF there only as a "rough cut" to narrow the group of sources for which it performed CAMx modeling to make "subject to BART" determinations. EPA relied on CAMx *specifically because* the distances involved exceeded 300 km. *See* 82 Fed. Reg. 912, 920-21 (Jan. 4, 2018). EPA's approvals of the Nebraska and South Dakota SIPs, both in 2012, pre-date EPA's removal of CALPUFF as the preferred model. As previously explained, EPA removed CALPUFF as the preferred model

Modeling RTC at 37-38, Index #5.20, App.7. EPA's flimsy explanations for its approval of LDEQ's use of CALPUFF here fall short of addressing EPA's lower confidence level in the modeling results for Nelson and Brame. EPA does not deny the shortcomings of this application of CALPUFF, and yet fails to provide a reasonable explanation justifying its approval of its use in light of its unreliability. The modeling cannot form the basis for EPA's approval of LDEQ's determinations that the Nelson and Brame units are subject to BART. *See Avoyelles Sportsmen's League*, 715 F.2d at 904 (decisions must be based on a consideration of the relevant factors with no clear error of judgment).

B. CALPUFF overestimates visibility impacts

EPA's approval of LDEQ's "subject to BART" determinations is inconsistent with the Agency's past determinations recognizing CALPUFF's limitations. EPA previously determined that CALPUFF overestimates visibility impacts due to the model's overly simplistic assumptions. EPA has not provided a reasoned basis for this inconsistency, failing to explain why CALPUFF's results are sufficiently reliable with respect to Nelson and Brame to justify its approval of the "subject to BART" determinations.

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in 2017. As a result, EPA cannot reliably point to Nebraska or South Dakota as support for the use of CALPUFF at distances greater than 300 km in light of its more recent formal recognition of CALPUFF's shortcomings.

EPA recommended CALPUFF as the model for BART determinations in 2005, but recognized at the time that the model includes certain assumptions and uncertainties. BART Guidelines, 70 Fed. Reg. 39,104, 39,121 (July 6, 2005). In 2017, EPA removed CALPUFF as the preferred model for long-range air quality assessments largely due to "the availability of more appropriate modeling techniques, such as photochemical transport models [like CAMx] (which address limitations of models like CALPUFF)."[12] 80 Fed. Reg. at 45,349. EPA explained that photochemical grid models like CAMx "are generally most appropriate for addressing ozone and secondary $PM_{2.5}$ because they provide a spatially and temporally dynamic realistic chemical and physical environment for plume growth and chemical transformation." *Id.* at 45,347. In other words, models like CAMx more realistically simulate the processes involved in haze formation.

The most important of CALPUFF's overly simplistic assumptions relates to its simulation of the transformation of SO_2 and NOx emissions into visibility-impairing sulfates and nitrates. CALPUFF does not consider several environmental parameters and chemical processes that are important in modeling this process. June 2017 Entergy Comments at 12-13, Index #141, App.52. According to the Central

[12] EPA continued to permit the use of CALPUFF for BART determinations, so that states would not be required to re-conduct modeling using a new modeling program. 80 Fed. Reg. at 45,350.

Regional Air Planning Association ("CENRAP"),[13] CALPUFF's simplistic handling of chemical interactions can "result in a systematic bias in the estimated concentrations and visibility impacts due to SO_2 and NOx emissions sources"—often an "overestimation bias'" for point sources emitting higher levels of NOx and SO_2."[14] June 2017 Entergy Comments at 12, Index #141, App.52.

For example, CALPUFF over-predicts the contribution of nitrates to visibility impairment by a significant margin when compared to real-world measurements. Trinity/ALL4 CAMx Modeling Report for Entergy at 2-2 (Oct. 14, 2016), Index #21.85, App.37. NOx emissions react in the atmosphere with ammonia to form ammonium nitrates, one of the two primary particulates that impair visibility. *Id.* CALPUFF's simplistic methodology overpredicts nitrate in both the winter and summer months, resulting in an unrealistically high prediction of the visibility impacts of the sources being modeled. *Id.* First, CALPUFF assumes that background ammonia levels in the atmosphere are constant year-round while, in reality, ammonia concentrations are lower in the winter months. *Id.* This is because

[13] CENRAP is one of five regional planning organizations in the United States that is funded by EPA to address the interstate transport nature of the regional haze pollutants in that region. CENRAP includes Nebraska, Kansas, Oklahoma, Texas, Minnesota, Iowa, Missouri, Arkansas, and Louisiana, and is affiliated with the Central State Air Resource Agencies.

[14] Alpine Geophysics, LLC, CENRAP BART Modeling Guidelines, at 3-8 (Dec. 15, 2008).

the primary source of atmospheric ammonia is biodegradation of vegetation, which occurs at a lower rate in winter. *Id.* Despite there being less ammonia in the atmosphere during winter to react with NOx emissions to form nitrates, CALPUFF nonetheless assumes that sufficient ammonia is indeed present, thus over-predicting the formation of nitrates during winter months. *Id.* Second, CALPUFF fails to account for the impact of temperature on nitrate formation. Nitrates do not form in high temperatures, so temperature is a limiting factor during the summer even when more ammonia is readily available to react with NOx. *Id.*; Modeling RTC at 51, Index #5.20, App.7. CALPUFF's inability to account for this limitation results in an over-prediction of nitrate formation during summer months. *Id.*

The over-estimation resulting from these deficiencies is significant: real-world visibility impairment data indicate that nitrates contribute on average only 9.28% to the total visibility extinction at the Breton Class I area on the worst 20% days. Trinity/ALL4 CAMx Modeling Report for Entergy at 2-2 (Oct. 14, 2016), Index #21.85, App.37. In comparison, CALPUFF predicts that nitrate contributions are 55.32%, *see id.*, **an over-estimation by nearly 500%**.

While EPA's modeling guidelines continue to recommend CALPUFF for BART assessments, this recommendation was designed to avoid requiring states to spend "additional time and expense in developing a new assessment of visibility impacts." 80 Fed. Reg. 45,340, 45,350 (July 29, 2015) (finalized at 82 Fed. Reg.

5,182, 5,196 (Jan. 17, 2017)). This rationale does not justify reliance on CALPUFF in Louisiana, given the significant distances involved that compound CALPUFF's overestimation bias and where Entergy, Cleco, and EPA provided LDEQ with modeling results produced by CAMx, the type of model "most appropriate" for these purposes. *See* 80 Fed. Reg. at 45,347.

CENRAP warns that CALPUFF's overestimation bias may lead to "'unwarranted and excessive control of emissions from some sources.'"[15] *See* June 2017 Entergy Comments at 12, Index #141, App.52. This is precisely the case here: EPA relied on CALPUFF's overestimation to approve LDEQ's determination that Nelson and Brame are subject to BART, resulting in unjustified emissions limits. EPA has provided no rational explanation for its failure to address this deficiency in CALPUFF, relying only on the fact that it has used CALPUFF in prior actions that pre-date its removal as a recommended model. *See* Modeling RTC at 28-32, Index #5.20, App.7. The fact that EPA used CALPUFF in a few previous determinations is not a reasonable explanation for why EPA ignored the shortcomings in the modeling given EPA's disavowal of CALPUFF since those prior uses occurred. *See 10 Ring Precision, Inc.*, 722 F.3d at 723 (agency must articulate a satisfactory

[15] Alpine Geophysics, LLC, CENRAP BART Modeling Guidelines, at 3-8 (Dec. 15, 2005).

explanation for its action). EPA's reliance on the CALPUFF modeling in its approval of the "subject to BART" determinations must be vacated.

C. Nelson's predicted visibility impairment is within CALPUFF's margin of error

EPA has failed to address comments explaining that the visibility impairment modeled for Nelson is within CALPUFF's margin of error. Entergy submitted an analysis to EPA demonstrating that the CALPUFF-predicted visibility impacts from Nelson at Caney Creek and Breton (0.748 dv and 0.798 dv, respectively) are within the margin of error calculated for each Class I area (1.38 dv and 1.25 dv, respectively) – in other words, these impacts are too small for CALPUFF to predict with any confidence. *See* August 2017 Entergy Comments at 5, Index #69, App.45. EPA has failed to address this problem.

In *National Parks Conservation Ass'n v. EPA*, 788 F.3d 1134, 1146-47 (9th Cir. 2015), the U.S. Court of Appeals for the Ninth Circuit concluded that EPA was required to demonstrate how it could "reasonably anticipate" model-predicted visibility improvements that were within a model's margin of error for a regional haze FIP in Montana. The court held that EPA failed to address a commenter's concern that the visibility improvements predicted by CALPUFF for a particular control technology at a specific source were too insignificant for the model to measure. *Id.* Because of this, the commenter argued, the predicted visibility

improvements could not be "reasonably anticipated" to occur, as required to justify a determination that a control technology constitutes BART. *Id.*

An analogous situation exists here. EPA determined that CALPUFF's predicted visibility impairment for Nelson justifies a determination that Nelson is subject to BART. 82 Fed. Reg. at 60,523, Index #7, App.18. A source is subject to BART if it "emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I Federal area." 40 C.F.R. § 51.308(e)(1)(ii). Entergy demonstrated that the predicted impairment for Nelson is within CALPUFF's margin of error, *see* August 2017 Entergy Comments at 5, Index #69, App.45, so the predicted impairment cannot "reasonably be anticipated" to contribute to impairment.

EPA misses the mark in its response to this comment, as it did in the Montana FIP. *See* 788 F.3d at 1146 ("[Petitioner] asks how CALPUFF explains EPA's conclusion that additional measures will lead to reasonable anticipation of visibility improvement in this case, when, [Petitioner] asserts, an improvement of 0.085 deciview is 'beyond the CALPUFF model's ability to predict with any confidence.' EPA's response does not meaningfully address [Petitioner's] comment, as it must."). EPA criticizes Entergy's margin of error analysis as "flawed," without further

explanation. Modeling RTC at 41, Index #5.20, App.7.[16] EPA then dismisses it as "immaterial to any assessment of whether or not the visibility impairment or benefits from controls can reasonably be anticipated to occur." *Id.* Entergy agrees that its analysis of the margin of error of Nelson's predicted visibility impairment does not address whether *benefits from controls* can reasonably be anticipated. But Entergy's analysis *is* material to assessing *whether the predicted impairment can reasonably be anticipated to occur*, and EPA neglects to explain otherwise. EPA must provide this explanation. *See Nat'l Parks*, 788 F.3d at 1146; *Baltimore Gas and Elec. Co.*, 817 F.2d at 116; *10 Ring Precision, Inc. v. Jones*, 722 F.3d at 724 (agency must consider significant comments made by the public during the rulemaking process).

III. EPA cannot rely on its CAMx modeling to justify its approval of the "subject to BART" determinations

In recognition of CALPUFF's shortcomings, EPA performed its own CAMx modeling to bolster its approval of LDEQ's "subject to BART" determinations,

[16] Although EPA refers to the Agency's analysis in its response to similar comments on the Arkansas FIP, that analysis is not part of the administrative record for this Final Rule. *See* Modeling RTC at 41, Index #5.20, App.7. Regardless, EPA's analysis in the Arkansas rulemaking does not help it here. In the Arkansas rulemaking, EPA argued that, in the Montana FIP case, the Ninth Circuit only "ruled on a procedural error that EPA did not respond to the comment received regarding the CALPUFF margin of error in its rulemaking as required under the law." EPA, Response to Comments for the Federal Register Notice for the State of Arkansas; Regional Haze and Interstate Visibility Transport Federal Implementation Plan, at 409 (Aug. 31, 2016), Docket No. EPA–R06–OAR–2015–0189–0187. This does not provide a response to Entergy's comments regarding the CALPUFF margin of error. As explained above, EPA has made the same procedural error here.

which relied solely on CALPUFF. This CAMx modeling cannot form the basis for EPA's approval of LDEQ's determinations. First, EPA has no authority under the CAA to correct deficiencies in a SIP. Second, EPA's CAMx modeling employs a fatally flawed methodology, rendering its results an unreliable basis for the approval of the "subject to BART" determinations.

A. EPA has no authority to correct SIP deficiencies

The CAA assigns the states primary authority for implementing its regional haze provisions. *American Corn Growers Ass'n. v. EPA*, 291 F.3d 1, 2 (D.C. Cir. 2002) (the states, not EPA, "play the lead role in designing and implementing [the] regional haze programs."). EPA has no authority to supplant a state's analysis with its own with the goal of approving a SIP. EPA's actions upon receiving a SIP submittal are limited to making a determination of completeness, issuing an approval, or issuing a disapproval if the submittal contains a "deficiency." *See* 42 U.S.C. § 7410(c)(1). The Act provides no mechanism by which EPA can make a correction to render a deficient SIP approvable; EPA's only authority in this situation is to disapprove the insufficient SIP provision.[17]

EPA has explicitly attempted to make such an improper correction here. LDEQ relied only on CALPUFF modeling to determine that Cleco and Brame are

[17] At that point, EPA can undertake rulemaking to issue a FIP where it disapproves a SIP. 42 U.S.C. § 7410(c)(1).

subject to BART. 82 Fed. Reg. at 60,525, Index #7, App.18 ("Relying on the CALPUFF modeling results submitted by Cleco and Entergy, as well as EPA's review and additional CALPUFF modeling . . . LDEQ concluded that the BART-eligible sources at Cleco Brame Energy Center and the Entergy Nelson [facility] . . . have visibility impacts greater than 0.5 dv and are therefore subject to BART."). Recognizing the inherent weakness in relying on CALPUFF, EPA performed its own CAMx modeling to provide additional support for these determinations. Modeling RTC at 7, Index #5.20, App.7 ("We performed additional modeling using CAMx to evaluate the visibility impacts and benefits of controls for the Entergy Nelson, Cleco Brame, and Big Cajun II sources to address possible concerns with utilizing CALPUFF to assess visibility impacts at Class I areas located far from these large emission sources."). Although EPA submitted this modeling to LDEQ, and LDEQ "revised" the SIP to add an appendix with EPA's information, *see* June 2017 SIP Submittal at 5, Index #22, App.38, the modeling was not a basis for LDEQ's "subject to BART" determinations. *See* 82 Fed. Reg. at 60,525, Index #7, App.18. Despite LDEQ's omission of EPA's CAMx modeling from its analysis, EPA specifically identifies its CAMx modeling as "support" for its approval of LDEQ's determinations. *Id.* at 60,526, Index #7, App.18 ("Our CAMx modeling supports the determination made by LDEQ that Entergy Nelson and Cleco Brame cause or

contribute to visibility impairment at nearby Class I areas and are therefore subject to BART.").

If the CALPUFF modeling fails to provide reasonable basis for the "subject to BART" determinations, EPA's CAMx modeling cannot be used in its place. EPA exceeds the scope of its authority in attempting to correct a deficiency in the SIP that should trigger a disapproval. Courts have long held that EPA has "no authority to question the wisdom of a State's choices of emission limitations if they are part of a [SIP] which satisfies the standards of [Section] 110(a)(2)," *Train v. Nat. Res. Def. Council, Inc.*, 421 U.S. 60, 79 (1975). Conversely, EPA has no authority to provide its own wisdom to ensure that a SIP satisfies the standards of the CAA when the state's is lacking. Thus, if the Court determines that EPA's reliance on CALPUFF to approve the "subject to BART" determinations was arbitrary and capricious, these determinations must be vacated. EPA's reliance on its CAMx modeling cannot salvage its approval.

B. EPA's CAMx methodology is arbitrary and capricious

Even if EPA were permitted under the CAA to rely on its CAMx modeling to approve the "subject to BART" determinations, EPA's CAMx modeling is deficient and cannot provide such a basis. EPA's CAMx modeling relies on faulty inputs (hypothetical steady-state maximum 24-hour emission rates instead of actual emissions rates) and yields outputs that EPA needed to, but did not, properly

calibrate. These methodological errors resulted in unreliable modeling results, as indicated by EPA's own assessment of its results and Entergy's and Cleco's CAMx modeling. Had EPA properly conducted the CAMx modeling, it would have determined that Nelson and Brame do not cause or contribute to visibility impairment at Class I areas, and are therefore not subject to BART.

1. EPA's inputs to CAMx result in overstated visibility impacts

The emission rates that EPA input into its CAMx modeling for Nelson and Brame were unrealistically high, inappropriately skewing the CAMx modeling results. EPA chose to model maximum 24-hour emission rates, rather than actual emission rates. Louisiana CAMx BART Modeling TSD at 11, Index #5.18, App. 6. This violates EPA's own regulations describing the purpose of a "subject to BART" assessment and is unreasonable in light of the technical capabilities of CAMx. Additionally, EPA's maximum NOx emission rate for Nelson is itself artificially high, as it is arbitrarily based on an observed emission rate that is a clear outlier.

EPA's use of worst-case emissions rates is inappropriate for an assessment designed to determine whether a source "emits any air pollutant which may *reasonably be anticipated to cause or contribute to any impairment* of visibility in any mandatory Class I Federal area." 40 C.F.R. § 51.308(e)(1)(ii) (emphasis added). Sources do not release their maximum level of emissions 24-hours per day, 365 days per year. Assuming that emissions occur at such a rate yields a conclusion that

emissions *could* cause or contribute to visibility impairment, but it does not indicate whether emissions can *reasonably be anticipated* to cause or contribute to impairment. EPA's assessment of visibility contributions using an unrealistic "worst case scenario" violates its requirement to determine whether impairment is *reasonably anticipated* to occur. *See* 40 C.F.R. § 51.308(e)(1)(ii).

EPA's use of a worst-case emissions scenario also is technically inappropriate for CAMx modeling. While the BART Guidelines recommend the use of maximum 24-hour emissions generally, they do not require it. 40 C.F.R. Pt. 51, App. Y, section III.A.3.2 ("We recommend that States use the 24 hour average actual emission rate from the highest emitting day of the meteorological period modeled, unless this rate reflects periods [sic] start-up, shutdown, or malfunction."). This recommendation is not applicable to CAMx modeling; it was made specifically for use with CALPUFF, which is a fundamentally different modeling system. Trinity/ALL4 CAMx Modeling Report for Entergy at 5-1 (Oct. 14, 2016), Index #21.85, App.37. Although EPA's Guidelines note that another "appropriate model" may be used, the protocol described by EPA, including the use of maximum 24-hour emissions, appears tailored to CALPUFF. EPA's Guidelines were established 13 years ago, when EPA described CALPUFF as "the best regulatory modeling application currently available for predicting a single source's contribution to visibility impairment and . . . currently the only EPA-approved model for use in estimating

single source pollutant concentrations resulting from the long range transport of primary pollutants."). 70 Fed. Reg. at 39,162. As explained above, EPA has since removed CALPUFF as the preferred model, citing "the availability of more appropriate modeling techniques," like CAMx. 80 Fed. Reg. 45,340, 45,349.

CALPUFF is a single-source, simplified-chemistry model, while CAMx is a multi-source, advanced-chemistry photochemical model. *Id.* CAMx was developed to assess complex chemical processes that occur in the atmosphere and to assess multiple emissions sources simultaneously. It therefore is more capable than CALPUFF of simulating reality, which can only account for simple chemistry and a single emissions source. Accordingly, when using CAMx, the goal of estimating realistic maximum visibility impacts is better served by modeling units' actual, not hypothetical maximum, emission rates. Trinity Report for Cleco at 2.1 (June 19, 2017), Index #132, App.51. In contrast, utilizing the maximum 24-hour emissions rate—the worst-case emission rate—is not reasonable and overstates an individual source's actual visibility impacts given CAMx's superior ability to characterize temporal, hour-to-hour conditions. *See* August 2017 Entergy Comments at 11, Index #69, App.45 (discussing April 2017 letter to Vivian Aucoin). As a result, using the maximum 24-hour emissions rate with CAMx will result in unrealistic predictions of the visibility impacts of the modeled source. *Id.*; Trinity/ALL4 CAMx Modeling Report for Entergy at 5-1 (Oct. 14, 2016), Index #21.85, App.37. In other words,

using EPA's methodology makes it more likely that a BART-eligible source will be determined to be subject to BART.

Even if EPA were justified in using maximum emissions rates, the NOx emission rate it selected for Nelson was too high. The maximum daily NOx emission rate at Nelson occurred on May 8, 2000, with a value of 69.925 tons per day. June 2017 Entergy Comments at 17, Index #141, App.52. The next-highest value is 41.147 tons per day, approximately 40% lower. *Id.* at 18. Despite acknowledging that the highest value is an outlier, EPA used the highest value as the maximum emission rate for the CAMx modeling. *See* Modeling RTC at 63, Index #5.20, App.7. Not only does this result in the modeling of an *abnormal* maximum emission rate, but EPA's use of the outlier data is inconsistent with its approach in other regional haze actions. In its Texas BART FIP, EPA disregarded the maximum daily NOx rate and instead used the second-highest value, which was approximately 30% lower.[18] June 2017 Entergy Comments at 17-18, Index #141, App.52. EPA should have done so here to avoid modeling Nelson's emissions with an excessively high, unrealistic NOx emission rate.

EPA's use of emissions rates that bear no resemblance to reality is plainly arbitrary and capricious. *See Columbia Falls Aluminum Co. v. EPA*, 139 F.3d 914

[18] EPA, TX187-0013-0040 – Modeling – coal fired daily ei 2000-2004 (posted Jan. 6, 2017), Docket No. EPA-R06-OAR-2016-0611-0013.

(D.C. Cir. 1998) ("An agency's use of model is arbitrary if that model bears no rational relationship to the reality it purports to represent.") (internal citations omitted). EPA overestimated visibility impacts from Nelson and Brame by using faulty inputs, and it has failed to address Entergy's and Cleco's comments explaining the inputs' shortcomings. *Sherley*, 689 F.3d at 784 (an agency's failure to respond to comments demonstrates that the agency's decision was not "based on a consideration of the relevant factors") (internal quotations and citations omitted).

2. EPA's use of uncalibrated model outputs likely overstates visibility impairment

EPA's approval of the "subject to BART" determinations is rendered even more deficient by EPA's reliance on absolute maximum modeled concentrations that are directly output by the CAMx model without confirming the validity of these concentrations. EPA should have used the same methodology to confirm the validity of the concentrations that it has recommended in its guidance and that it has used for prior regional haze plans: the use of "relative response factors" paired with monitor data.

As EPA itself has noted, modeling bias can inappropriately influence estimated visibility impacts when using CAMx. June 2017 Entergy Comments at 16 (citing 2015 Texas and Oklahoma FIP RTC, at 585), Index #141, App.52. When EPA relies on absolute maximum modeled concentrations, it fails to account for the possibility that CAMx may predict visibility impacts well above the level that might

be expected in reality (i.e., an outlier). *Id.* Failure to correct such outliers unrealistically overestimates the contribution of emission sources to visibility impairment. *Id.*

EPA determined in past actions that "relative response factors" should be used in conjunction with air monitor data (called "IMPROVE" data[19]) when assessing modeling results to "help remove potential bias concerns."[20] *Id.* Relative response factors are of critical importance in properly evaluating CAMx modeling outputs so that modeling bias is ameliorated, and are recommended by EPA for use with CAMx modeling in its Regional Haze Modeling Guidance.[21] EPA has explained that evaluating CAMx results using relative response factors and baseline air monitoring data "allows the overall modeling results to be used in a relative sense to estimate

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[19] IMPROVE data is collected by the Interagency Monitoring of Protected Visual Environments program.

[20] EPA, "Response to Comments for the Federal Register Notice for the Texas and Oklahoma Regional Haze State Implementation Plans; Interstate Visibility Transport State Implementation Plan to Address Pollution Affecting Visibility and Regional Haze; and Federal Implementation Plan for Regional Haze" at 585 (Dec. 9, 2015), Index #5.27, App.10.

[21] EPA, Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM2.5, and Regional Haze (2007). Publication No. EPA-454/B-07-002. More recently, EPA confirmed that it still considers the use of Relative Response Factors appropriate. *See* Draft Modeling Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM2.5, and Regional Haze http://www.epa.gov/ttn/scram/guidance/guide/Draft_O3-PM-RH_Modeling_Guidance-2014.pdf

changes to baseline monitored values based on the relative change in model results between a basecase and a different modeled scenario." 2015 Texas and Oklahoma FIP RTC at 562, Index #5.27, App.10. As a result, "[a]ny bias issues in CAMx are ameliorated by tethering the model to real monitoring data, through the use of relative response factors generated by modeling of base and future cases to predict future monitored values." *Id.* at 566, Index #5.27, App.10. EPA followed this approach in past regional haze actions, including its FIP for Texas and Oklahoma. *Id.*

EPA failed to take this step with its CAMx modeling in support of its Louisiana SIP approval, despite acknowledging that the CAMx model performed poorly. *See infra* Section III.C. EPA's explanation for this failure is that the use of absolute maximum modeled concentrations is appropriate because the Agency is assessing the absolute maximum impacts from modeled sources. Modeling RTC at 22, Index #5.20, App.7. Employing a relative response factors approach, EPA states, could result in unrealistic estimates of maximum impacts. *Id.*

This explanation is unreasonable. First, as explained above in Section III.B.1, EPA's assessment of the absolute maximum impacts from modeled sources goes beyond the mandate of the statute, which requires assessing whether a source would *reasonably* be anticipated to contribute or cause visibility impairment. 40 C.F.R. § 51.308(e)(1)(ii). Second, EPA suggests that it is ignoring the known bias because

correcting for the bias could result in lower predicted visibility impacts. Modeling RTC at 22, Index #5.20, App.7 ("The use of [a relative response factor] approach and observed data could result in unrealistic estimates of absolute maximum impacts from an individual source due to a number of other factors in the model not related to the specific source that affect overall model performance and any bias in overall model predictions."). But without having employed a relative response factor approach, EPA lacks support for this conclusion and merely theorizes that such an outcome *might* occur. And third, EPA acknowledges a known modeling bias but refuses to follow its own recommendations and guidance on how to address this bias. EPA's effort to distinguish its past use of relative response factors in the Texas and Oklahoma FIP is unavailing. EPA explains that its CAMx modeling for Texas and Oklahoma was used to assess visibility improvements from the installation of specific emission control equipment, whereas its purpose here is to model maximum potential visibility impacts from Nelson and Brame. Modeling RTC at 22, Index #5.20, App.7. EPA fails to explain why properly calibrating the model results is necessary in the prior analysis but not the latter.

Even if EPA had taken the step to compare the raw model results to monitored air data, it would not have been able to do so for one NOx component—nitrogen dioxide ("NO_2"). CAMx uses a specific algorithm to model emissions of NO_2. June 2017 Entergy Comments at 18-19, Index #141, App.52. The developer of this

algorithm instructs that its use for modeling NO_2 is dependent upon the availability of actual NO_2 monitoring data at the Class I area under evaluation.[22] *See id.* There is no NO_2 monitoring data for Breton or Caney Creek, so NO_2 should not have been included in EPA's CAMx modeling. EPA recognizes this instruction but explains that its model estimated only a small amount of visibility impairment resulting from NO_2 emissions, such that any errors in the NO_2 modeling would be insignificant. Modeling RTC at 44, Index #5.20, App.7. This explanation does not justify EPA's improper modeling of NO_2 emissions in direct contravention of the developer's instructions. Rather, the improper inclusion of NO_2 emissions further contributes to the unreliability of EPA's CAMx modeling results.

EPA's explanations for its handling of the modeling results are insufficient in light of the methodology it used in past actions, rendering EPA's action plainly arbitrary and capricious. *See Handley v. Chapman*, 587 F.3d at 282 (agency must provide good reasons for a policy change); *Citizens to Preserve Overton Park, Inc.*, 401 U.S. at 416 (action is arbitrary and capricious when the decision was not based on a consideration of the relevant factors).

[22] Revised IMPROVE Algorithm Report, at 13 (Dec. 15, 2005).

C. EPA ignored its own Model Performance Evaluation that revealed flaws in the CAMx methodology

EPA knew that its CAMx methodology was faulty, as its assessment of the model's performance revealed that the model failed to predict visibility impairment with the expected accuracy. EPA's reliance on its CAMx results despite this knowledge was arbitrary and capricious.

EPA conducted a "Model Performance Evaluation" to assess whether its CAMx modeling adequately simulated the various conditions that influence pollutant concentrations. These conditions may include meteorological effects, emissions transport, and the chemical interaction of pollutants in the atmosphere. June 2017 Entergy Comments at 19, Index #141, App.52. Model Performance Evaluations also can identify causes of poor model performance, such as errors in emissions inputs or problems with meteorological data. *Id.*

EPA's Model Performance Evaluation revealed that the CAMx modeling greatly overestimated haze during the winter. *See* Memorandum from UNC Institute for the Environment to EPA re: Regional Haze Evaluation Subtask 2, at 20 (Dec. 7, 2016), Index #4.1, App.3. According to EPA, the model would have performed acceptably if it predicted haze values within 60% of actual monitored values. *Id.* at 18, Index #4.1, App.3. The model failed to meet this goal, as its haze predictions exceeded the monitored values by over 60% from October to February. *Id.* at 20, Index #4.1, App.3. For two of those months – November and December – it over-

predicted haze by 100%, meaning that the model predicted haze **at twice the values that were measured on air quality monitors**. *Id.* While the model under-predicted haze from April through August, these slight under-predictions were dwarfed by the excessive over-predictions. *See id.*

EPA acknowledges that the model generally over-predicts haze, attributing this over-prediction to the use of maximum emissions levels for the entire modeled year, instead of actual emission levels. Modeling RTC at 51, Index #5.20, App.7. But rather than model actual emission levels to verify this hypothesis, EPA proceeds to rely upon the admittedly faulty modeling results. EPA does this despite having been presented with analyses by Entergy and Cleco demonstrating that the model's over-predictions may be due to other shortcomings, and that the over-predictions may result in overstated estimates of Nelson and Brame's visibility impacts. June 2017 Entergy Comments at 21-26, Index #141, App.52; June 2017 Cleco Comments at 5, Index #130, App.50. An agency's choice to proceed on the basis of "imperfect" information is arbitrary and capricious if "'there is simply no rational relationship' between the means used to account for any imperfections and the situation to which those means are applied." *Texas Oil & Gas Ass'n v. U.S. EPA*, 161 F.3d 923, 935 (5th Cir. 1998). *See also Columbia Falls Aluminum Co.*, 139 F.3d at 923. EPA's rejection of its own analysis demonstrating the unreliability of its CAMx modeling is arbitrary and capricious, especially in the face of evidence submitted by Entergy

and Cleco. *See Chem. Mfrs. Ass'n v. EPA*, 28 F.3d 1259, 1264–66 (D.C. Cir. 1994) (EPA's use of generic air dispersion model to set emissions levels was arbitrary where unrebutted evidence in the record indicated that substance did not behave as model assumed).

D. Entergy's and Cleco's CAMx modeling demonstrates that EPA's CAMx modeling significantly overestimates visibility impacts

Entergy and Cleco submitted to EPA their own CAMx modeling analyses and results, free of the technical flaws identified in the previous sections, which concluded that Nelson and Brame are not reasonably anticipated to contribute to visibility impairment at Class I areas. Trinity/ALL4 CAMx Modeling Report for Entergy (Oct. 14, 2016), Index #21.85, App.37; Trinity Report for Cleco, Index #132, App.51. EPA unreasonably ignored this CAMx modeling and instead arbitrarily and capriciously relied on the skewed results of its own modeling.

Both Entergy and Cleco presented EPA with significant evidence that their respective CAMx modeling provided a more reasonable assessment of Nelson's and Brame's contribution to visibility impairment at the nearest Class I areas. Entergy's modeling revealed that Nelson contributed only 0.019 dv to impairment at Caney Creek, and 0.012 dv at Breton. Trinity/ALL 4 CAMx Modeling Report for Entergy at 4-2 (Oct. 14, 2016), Index #21.85, App.37. Cleco's modeling demonstrated that Brame contributed only 0.008 dv to impairment at Caney Creek, and 0.013 dv at Breton. Trinity Report for Cleco at 2-1, Index #132, App.51. These results are far

less than LDEQ's 0.5 dv threshold for determining whether a source is reasonably anticipated to contribute to visibility impairment at a Class I area. 77 Fed. Reg. 39,425, 39,431 (July 3, 2012). Accordingly, neither Nelson nor Brame should be subject to BART.

EPA was not justified in dismissing Entergy's or Cleco's modeling results. EPA's primary criticisms of the modeling are legally deficient. As explained above in Section III.B, Entergy and Cleco appropriately modeled actual emissions, rather than worst-case emissions, and properly calibrated their modeling results using relative response factors.

EPA's remaining criticism is unreasonable. EPA criticizes Entergy and Cleco for using CAMx as it was designed – to model multiple sources of emissions simultaneously to provide a realistic view of how emissions interact in the atmosphere and their resulting relative contributions to visibility impairment. *See* Modeling RTC at 11, Index #5.20, App.7. According to EPA, Entergy and Cleco should have artificially restricted the model to look only at Nelson and Brame, respectively, based the BART Guidelines' direction that visibility assessments should assume no other sources of emissions exist (i.e., "natural visibility conditions"). *Id.* This instruction was drafted for use with CALPUFF, which was the only approved model at the time, *see supra* at 9, and which is capable of looking at only one emission source at a time. Trinity/ALL4 CAMx Modeling Report for

Entergy at 5-1, Index #21.85, App.37. It should not apply to CAMx, which is capable of assessing multiple emissions sources simultaneously.

The omission of other sources results in unrealistic predictions of visibility impairment, as this fails to account for the interaction of pollutants in the atmosphere, which impacts the formation of haze. *Id.* For example, when instructed that no other emissions sources exist, the model assumes that all naturally occurring ammonia is available to react with NOx emissions to form haze. *Id.* In reality, ammonia will react with NOx emissions from all sources, such that only some is available to react with Nelson's emissions to form haze. *Id.* The model therefore would overestimate Nelson's contribution to haze formation. *See id.* *See also* Modeling RTC at 31, Index #5.20, App.7 ("The CALPUFF modeling also does not capture the effect of competition with other emission sources for the available ammonia."). EPA's more recent draft modeling guidelines direct that CAMx modeling performed for other CAA requirements include emissions from all sources.[23] Trinity/ALL4 CAMx Modeling Report for Entergy at 5-1, Index #21.85, App.37. EPA has not adequately explained why this approach, which provides a more realistic assessment of a source's impact on visibility, is inappropriate here.

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[23] *See* EPA, Draft Modeling Guidance on the Use of Models and Other Analyses for Demonstrating Attainment of Air Quality Goals for Ozone, PM2.5, and Regional Haze, http://www.epa.gov/ttn/scram/guidance/guide/Draft_O3-PM-RH_Modeling_Guidance-2014.pdf.

A rule is arbitrary and capricious—and must be vacated—when it is "so irrational that it could not be attributed to a difference in opinion or the result of agency expertise." *BCCA Appeal Group v. E.P.A.*, 355 F.3d 817, 824 (5th Cir. 2003). In failing to consider Entergy's and Cleco's modeling, EPA contradicts its prior practice and disavows its own guidance. As a result, EPA's decision to ignore Entergy's and Cleco's CAMx modeling results "[cannot] be attributed to a difference in opinion or the result of [EPA's] expertise." *Id. See also American Petroleum Institute v. E.P.A.*, 661 F.2d 340, 349 (5th Cir. 1981) ("judicial review 'must be based on something more than trust and faith in EPA's experience.'") (internal citations omitted). EPA's reliance on its own CAMx modeling despite the evidence that it was faulty was arbitrary and capricious and must be vacated accordingly. *See Chem. Mfrs. Ass'n v. EPA*, 28 F.3d at 1265 ("judicial deference to the agency's modeling cannot be utterly boundless; we must reverse the agency's application of the generic air dispersion model as arbitrary and capricious if there is simply no rational relationship between the model and the known behavior of the hazardous air pollutant to which it is applied.").

CONCLUSION AND PRAYER FOR RELIEF

Due to the numerous fatal flaws in the modeling analyses underlying the Final Rule, Entergy and Cleco respectfully request that the Court vacate EPA's approval of the "subject to BART" determinations for Nelson and Brame, and the resulting BART emissions limits.

DATED: December 18, 2018

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CERTIFICATE OF SERVICE

I hereby certify that all counsel of record who have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system on this 18th day of December, 2018.

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CERTIFICATE OF COMPLIANCE

The undersigned counsel state that this brief complies with this Court's June 4, 2018 order because it contains 11,653 words, excluding the parts of the document exempted by Fed. R. App. P. 32(f), as counted by a word processing system and, therefore, is within the 13,000-word limit. This motion also complies with typeface requirements of Fed. R. App. P. 27(d)(1)(E) because it has been prepared in a proportionally spaced typeface in 14-point Times New Roman font.

The undersigned counsel further certify that no privacy redactions are required, 5th Cir. R. 25.2.13; the electronic submission is an exact copy of the paper document, 5th Cir. R. 25.2.1; and the document has been scanned for viruses with the most recent version of a commercial virus scanning program and is free of viruses.

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No. 18-60116

IN THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

SIERRA CLUB; NATIONAL PARKS CONSERVATION ASSOCIATION; ENTERGY LOUISIANA, L.L.C.,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY; ANDREW WHEELER, Acting Administrator, United States Environmental Protection Agency,

Respondents.

Petition for Review of Final Administrative Actions of the United States Environmental Protection Agency

PRINCIPAL BRIEF OF PETITIONERS SIERRA CLUB AND NATIONAL PARKS CONSERVATION ASSOCIATION

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Dated: August 3, 2018

CERTIFICATE OF INTERESTED PERSONS

The undersigned counsel of record certifies that the following listed persons and entities as described in the fourth sentence of Rule 28.2.1 have an interest in the outcome of this case. These representations are made in order that the judges of this Court may evaluate possible disqualification or recusal.

1. Petitioners and Respondent-Intervenors: Sierra Club and National Parks Conservation Association.

   Sierra Club and National Parks Conservation Association are each non-profit organizations that maintain an open membership invitation to organizations, businesses, individuals, and the public in general. Accordingly, their memberships consist of many individual members.

   Neither Sierra Club nor National Parks Conservation Association has parent companies, and no publicly-held company owns a 10% or greater interest in Sierra Club or National Parks Conservation Association.

2. Petitioner: Entergy Louisiana, LLC.

3. Respondents: United States Environmental Protection Agency; Andrew Wheeler, Acting Administrator, U.S. Environmental Protection Agency.

4. Intervenors: Entergy Louisiana, LLC, Cleco Power, LLC, Utility Air Regulatory Group.

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STATEMENT REGARDING ORAL ARGUMENT

Pursuant to Local Rule 28.2.3, Petitioners Sierra Club and National Parks Conservation Association respectfully request that the Court hold argument in this case. At issue is whether the Clean Air Act's regional haze provisions require two of the largest sources of air pollution in Louisiana to reduce pollution that obscures visibility and causes diseases and premature deaths. Petitioners respectfully submit that oral argument would assist the Court with the complex legal issues and the voluminous evidentiary record in this case.

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JURISDICTIONAL STATEMENT

This petition for review challenges the EPA Administrator's approval of the regional haze plan for Louisiana, 82 Fed. Reg. 60,520 (Dec. 21, 2017), which is locally and regionally applicable. This Circuit is the appropriate circuit to review the Louisiana haze plan, and therefore subject matter jurisdiction lies in this Court under the Clean Air Act, 42 U.S.C. § 7607(b)(1).

Sierra Club and National Parks Conservation Association timely filed this petition for review on February 20, 2018, within 60 days of the final rule's publication in the Federal Register on December 21, 2017, 82 Fed. Reg. 60,520. *See* 42 U.S.C. § 7607(b)(1).

STATEMENT OF ISSUES

1. Was EPA's approval of the State of Louisiana's determination of the best available retrofit technology for controlling sulfur dioxide emissions from the Nelson power plant arbitrary and capricious and otherwise unlawful because:

a) the State's decision was based on analyses EPA itself found to be riddled with errors, and the State's decision is inconsistent with EPA's corrected analyses;

b) neither the State nor EPA provided a rational basis for rejecting more effective pollution controls that had cost-effectiveness and visibility improvement values consistent with other BART determinations; and

c) the State failed to consider factors that the Clean Air Act and EPA's mandatory BART Guidelines require the State to consider.

2. Was EPA's approval of the State of Louisiana's regional haze plan's failure to include a long-term strategy containing a reasonable progress analysis arbitrary and capricious and otherwise unlawful, in light of:

a) the Clean Air Act requirement that a long-term strategy consider measures to make reasonable progress;

b) a previous EPA final rule finding that Louisiana must perform a new analysis of whether to control sources as part of its long-term strategy; and

c) EPA's violation of notice and comment requirements by providing a rationale for the first time in the final rule.

STATEMENT OF THE CASE

I. THE CLEAN AIR ACT'S REGIONAL HAZE PROGRAM

In 1977, with bipartisan support, Congress overwhelmingly passed amendments to the Clean Air Act ("CAA" or "Act") to protect air quality in national parks and wilderness areas for future generations. Pub. L. No. 95–95, 91 Stat. 685 (1977). Congress was responding to the unfortunate reality that then, as now, most national parks and wilderness areas suffer from air pollution that both obscures scenic vistas and endangers human health. *See* H.R. Conf. Rep. 95-564, at 155, *reprinted in* 1977 U.S.C.C.A.N. 1502, 1536; 64 Fed. Reg. 35,714, 35,715 (July 1, 1999). "In the eastern United States, the average visual range in most national parks and wilderness areas designated as Class I Federal areas, see 42 U.S.C. § 7472(a), is less than 30 kilometers, about 20 percent of what it would be under natural conditions." *Util. Air Regulatory Grp. v. EPA*, 471 F.3d 1333, 1334 (D.C. Cir. 2006). This decline in visibility is largely due to emissions of sulfur dioxide ("SO_2") and nitrogen oxides ("NO_X"), which react in the atmosphere to form "haze" pollution that occurs many miles away from the source. 82 Fed. Reg. 3078, 3093 (Jan. 10, 2017).

The same air pollutants that obscure visibility cause serious diseases. Of particular relevance to this case, "SO_2 emissions that cause visibility impairment also contribute to increased asthma symptoms, lead to increased hospital visits, and

can form particulates that aggravate respiratory and heart diseases and cause premature death." 76 Fed. Reg. 81,728, 81,752 (Dec. 28, 2011); *see also Am. Lung Ass'n v. EPA*, 134 F.3d 388, 389 (D.C. Cir. 1998).[1]

To protect the "intrinsic beauty and historical and archaeological treasures"[2] of public lands, Congress set "as a national goal" clearing the nation's parks and wilderness areas of man-made visible air pollution and returning these areas to their natural state. 42 U.S.C. § 7491(a)(1). The Clean Air Act designates such national parks and wilderness areas as "Class I areas" that are afforded the strongest protections under the Act. *Id.* § 7472(a). To reach the national goal of achieving natural visibility conditions by 2064, 40 C.F.R. § 51.308(d)(1)(i)(B), states were required to submit regional haze plans to EPA no later than December 2007, *id.* § 51.308(b). EPA, in turn, must evaluate each state's plan, 42 U.S.C. § 7410(k)(3), and if EPA determines that a state's plan does not comply with the Clean Air Act, EPA must promulgate a federal plan that remedies the shortcomings. *Id.* § 7410(c)(1).

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[1] Power plants also emit particulate matter and nitrogen oxides, which react with other compounds to form ground-level ozone, which in turn "can cause lung dysfunction, coughing, wheezing, shortness of breath, nausea, respiratory infection, and in some cases, permanent scarring of the lung tissue" *S. Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882, 887 (D.C. Cir. 2006) (citation omitted), *decision clarified on denial of reh'g*, 489 F.3d 1245 (D.C. Cir. 2007).

[2] H.R. Rep. No. 95-294, at 203 (1977), *reprinted in* 1977 U.S.C.C.A.N 1077, 1282.

To restore Class I areas to their natural air quality conditions, implementation plans must contain "emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal." *Id.* § 7491(b)(2). The statute and the rule implementing the Clean Air Act's haze provisions, the Regional Haze Rule, include several interlocking measures designed to make "reasonable progress" towards achieving the natural visibility goal. Among other things, each state must implement the best available retrofit technology ("BART") for certain sources of haze-causing pollutants, *id.* § 7491(b)(2)(A), develop "goals (expressed in deciviews)[3] that provide for reasonable progress towards achieving natural visibility conditions," 40 C.F.R. § 51.308(d)(1), and require any additional emission reductions "as may be necessary to make reasonable progress toward the national goal" at all Class I areas affected by the state's emissions. 42 U.S.C. § 7491(b)(2).

A. <u>BART Emission Limits</u>

As one of its core elements, each regional haze plan must include emissions limits reflecting installation and operation of the best available retrofit technology, or BART. BART is defined as "an emission limitation based on the degree of

[3] A deciview is a measurement of visibility impairment. A deciview is a haze index derived from calculated light extinction, such that uniform changes in haziness correspond to uniform incremental changes in perception across the entire range of conditions, from pristine to highly impaired. 40 C.F.R. § 51.301.

reduction achievable through the application of the best system of continuous emission reduction for each pollutant which is emitted by an existing stationary facility." 40 C.F.R. § 51.301. BART limits are required at older, higher-polluting sources that "cause" or "contribute" to haze in Class I areas. 42 U.S.C. § 7491(b)(2)(A).[4]

The Clean Air Act requires that five factors be considered when determining BART limits: the costs of compliance, the energy and nonair quality environmental impacts of compliance, any existing pollution control equipment in use at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology. *Id.* § 7491(g)(2). BART is an essential component of the regional haze program as it compels emissions reductions from older, disproportionately polluting sources that often have escaped control under other CAA programs.

By reducing air pollution, BART controls not only improve air quality at national parks and wilderness areas, but provide significant health benefits to further the "overriding" and "paramount" public health goals of the Clean Air Act.

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[4] A source is BART-eligible if it is a stationary source within one of 26 enumerated categories, was not in operation before August 7, 1962, but was in existence on August 7, 1977, and has the potential to emit 250 tons per year or more of any pollutant. 42 U.S.C. § 7491(b)(2)(A), (g)(7).

See H.R. Conf. Rep. 95-564, at 189 (1977), *reprinted in* 1977 U.S.C.A.N.N. 1502, 1570. In finalizing the BART regulations, EPA valued the regional haze program's public health benefits nationally at $8.4 to $9.8 billion annually.[5]

B. Reasonable Progress

In addition to setting BART emission limits, each haze plan must include an evaluation of goals that provide for reasonable progress ("reasonable progress goals" or "RPGs") towards achieving natural visibility conditions, 40 C.F.R. § 51.308(d)(1), and the emission reductions necessary to ensure reasonable progress, *see id.* § 51.308(d)(1)(i)(A), (d)(3); 42 U.S.C. § 7491(b)(2). In developing these reasonable progress goals and corresponding emission reductions, each state must consider four factors: "the costs of compliance, the time necessary for compliance, the energy and nonair quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirements." 42 U.S.C. § 7491(g)(1); *see also* 40 C.F.R. § 51.308(d)(1)(i)(A). In evaluating these four statutory factors, states must consider all air pollution sources that contribute to haze in Class I areas. *See* 40 C.F.R. § 51.308(d)(3)(iv).

For each Class I area within its borders, a state must determine the uniform rate of progress ("URP"), which is the amount of progress that, if kept constant

[5] EPA, *Fact Sheet – Final Amendments to the Regional Haze Rule and BART Guidelines*, https://19january2017snapshot.epa.gov/sites/production/files/2016-02/documents/fs_2005_6_15.pdf (last visited Aug. 3, 2018).

each year, would ensure that natural visibility conditions are achieved in 2064. *Id.* § 51.308(d)(1)(i)(B). If a state selects a reasonable progress goal that achieves a slower rate of progress than the URP, the state must demonstrate, based on the four reasonable progress factors, "that the rate of progress for the implementation plan to attain natural conditions by 2064 is not reasonable; and that the progress goal adopted by the State is reasonable." *Id.* § 51.308(d)(1)(ii).

After considering the four reasonable progress factors, each haze plan must include emission limits, schedules of compliance, and "all measures necessary" to make reasonable progress towards achieving natural visibility conditions. *Id.* § 51.308(d)(3)(ii). EPA "commonly refer[s] to the evaluation of these four statutory factors as the 'four-factor analysis' or 'reasonable progress analysis.'" 81 Fed. Reg. 66,332, 66,360 (Sept. 27, 2016).

The reasonable progress analysis is a critical component of a haze plan, in part because BART applies to only a limited number of categories of sources that began operations between 1962 and 1977. 42 U.S.C. § 7491(b)(2)(A). Many sources that contribute to regional haze, however, are not subject to BART. As a result, the only way to achieve the statutory goal of eliminating haze pollution caused by humans, *id.* § 7491(a)(1), is by ensuring that each haze plan contains a proper reasonable progress analysis and measures necessary to reduce haze pollution.

II. HAZE POLLUTION FROM LOUISIANA SOURCES

Power plants and other facilities in Louisiana generate significant amounts of air pollutants that cause haze.[6] Louisiana sources emit air pollution that causes haze from the Gulf coast of Louisiana to as far north as Missouri. EPA, LA CAMx BART Modeling TSD with Nelson (Apr. 2017) ("CAMx Modeling TSD"), Index 5.18[7] at 16, 32-33, 40, 45, 50-58.

Louisiana is home to a Class I area, the Breton National Wildlife Refuge, that is protected by the Clean Air Act's regional haze program. 77 Fed. Reg. 11,839, 11,845 (Feb. 28, 2012). "Established in 1904, Breton is the second oldest refuge in the National Wildlife Refuge System, and is comprised of a series of barrier islands including Breton Island and all of the Chandeleur Islands which are located in St. Bernard Parish, Louisiana." La. Dept. of Envtl. Quality, Regional Haze State Implementation Plan ("SIP"), EGU BART Analysis (Feb. 10, 2017), Index 21 at pdf p. 5. "The largest contributions [to haze in Breton] come from inside the state," *i.e.*, from sources in Louisiana. 77 Fed. Reg. at 11,853. People visit Breton by boat to fish, view and study marine and bird species, and to enjoy

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[6] The State and EPA determined that five Louisiana power plants cause or contribute to visibility impairment and are therefore subject to the BART requirements. *See* 82 Fed. Reg. 22,936, 22,942 (May 19, 2017).

[7] Citations to documents in the administrative record are in the format of "Index XX," which refers to the EPA document number listed in the left-most column of the Certified Index to the Administrative Record, ECF Doc. 00514411589.

one of the last remaining "big sky" vistas in the Gulf. *See* Declaration of Scott Eustis ¶ 6 (Mar. 20, 2018) ("Eustis Decl.").

One of the largest Louisiana sources of haze-causing pollution is the R.S. Nelson power plant ("Nelson"),[8] 82 Fed. Reg. 32,294, 32,296 (July 13, 2017), which is subject to the BART requirements, *id.* The Nelson power plant has two main units: Unit 4 burns natural gas, and Unit 6 burns coal as its primary fuel. *Id.* at 32,297. Nelson Unit 6 emits over 10,000 tons of sulfur dioxide pollution each year. *See id.* at 32,298-99.

While haze impacts occur at lower emission levels, the BART Guidelines use 1.0 deciview as the threshold for indicating that a single source "causes" haze, and 0.5 deciviews as the threshold for concluding that a single source "contributes" to haze. 40 C.F.R. pt. 51, App. Y § (III)(A)(1). Nelson's air emissions impair visibility by more than 1.0 deciview at four Class I areas, and by more than 0.5 deciviews at another two Class I areas. *See* 82 Fed. Reg. at 32,299-300. Applying the BART Guidelines' thresholds, Nelson causes haze at the Caney Creek, Upper Buffalo, and Hercules-Glade Wilderness Areas and the Mingo National Wildlife Refuge, and Nelson contributes to haze at the Breton and Wichita Mountains National Wildlife Refuges. *See id.*

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[8] Except as otherwise noted, this brief uses "Nelson" to refer to Nelson Unit 6.

Dolet Hills, a large power plant in DeSoto Parish, is the largest source of sulfur dioxide pollution in Louisiana. Stamper Report (June 18, 2017), Index 144 at 18. On average, between 2012 and 2016, Dolet Hills emitted more than 17,000 tons of sulfur dioxide each year. *Id.* at 18. Dolet Hills has a thirty-one year-old scrubber[9] that removes only 17% to 50% of sulfur dioxide, *id.* at 16-17, whereas modern scrubbers can remove 95% to 98% of sulfur dioxide emissions. 82 Fed. Reg. at 32,298.

Dolet Hills impairs visibility by more than 1.0 deciview at a single Class I area and by more than 0.5 deciviews at another 5 Class I areas. *See* Gray Report (June 19, 2017), Index 142 at 6. Using the BART Guidelines' benchmarks, 40 C.F.R. pt. 51, App. Y § (III)(A)(1), Dolet Hills causes haze pollution at the Caney Creek Wilderness Area in Arkansas and contributes to haze pollution at the Upper Buffalo Wilderness Area in Arkansas, the Mingo National Wildlife Refuge and Hercules-Glade Wilderness Area in Missouri, the Breton National Wildlife Refuge in Louisiana, and the Wichita Mountains National Wildlife Refuge in Oklahoma. *See* Gray Report, Index 142 at 6.

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[9] A "scrubber," otherwise known as flue gas desulfurization technology, is the most effective technology available for reducing sulfur dioxide from power plant emissions. *See* at Stamper Report, Index 144 at 21. There are different kinds of scrubbers, but most scrubbers work by using a reagent (such as limestone) to create a chemical reaction that transforms the SO_2 in a plant's exhaust gas into a solid (such as gypsum), which is then removed. Trinity Consultants, BART Five-Factor Analysis (Rev. Apr. 15, 2016), Index 21.70 at 4-2.

III. DEVELOPMENT OF THE LOUISIANA HAZE PLAN

A. Louisiana's 2008 Haze Plan

States were required to submit haze plans to EPA by December 17, 2007. 40 C.F.R. § 51.308(b). Louisiana missed the deadline, but submitted a haze plan on June 13, 2008. 82 Fed. Reg. at 32,295. EPA disapproved substantial portions of Louisiana's plan after concluding that it violated the Clean Air Act. *Id.* Louisiana's 2008 plan relied on a separate EPA pollution-trading rule, the Clean Air Interstate Rule ("CAIR"), to satisfy the BART requirements for power plants.[10] The D.C. Circuit invalidated CAIR in *North Carolina v. EPA*, 531 F.3d 896, 930 (D.C. Cir.), *reh'g granted in part*, 550 F.3d 1176 (D.C. Cir. 2008). Following the D.C. Circuit's decision, EPA concluded that states could no longer rely on CAIR, and therefore disapproved Louisiana's reliance on CAIR to satisfy both the BART and long-term strategy requirements for power plants. *See* 77 Fed. Reg. 33,642, 33,645, 33,653 (June 7, 2012).

In addition, EPA disapproved other parts of Louisiana's long-term strategy and reasonable progress elements in a separate rulemaking. *See* 77 Fed. Reg.

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[10] EPA regulations allow states to forgo requiring source-specific BART controls and instead rely on an emissions trading program or other alternative program to satisfy the BART requirements, as long as the alternative provides greater reasonable progress towards improving visibility than source-specific BART. 40 C.F.R. § 51.308(e)(2). EPA found that CAIR satisfied the requirements for a BART alternative. 70 Fed. Reg. 39,104, 39,137 (July 6, 2005).

39,425 (July 3, 2012). Of relevance here, EPA found that Louisiana's long-term strategy relied on deficient BART determinations for sources other than power plants. 77 Fed. Reg. at 11,854. EPA further noted that because Louisiana's reasonable progress goals provided for a "slower" rate of improvement in visibility than would be needed to reach natural visibility conditions by 2064, "Louisiana will have to reconsider whether reductions of SO_2 from EGUs, whether subject to BART or not, are appropriate for ensuring reasonable progress and evaluate whether the reconsidered [reasonable progress goals] meet the rate of improvement needed to attain natural visibility conditions by 2064." EPA, 2012 Technical Support Document (Feb. 2012), Index 21.17 at 39; *see also* 77 Fed. Reg. at 11,841 ("Louisiana will have to reconsider whether reductions of SO_2 from EGUs, whether subject to BART or not, are appropriate for ensuring reasonable progress."). In finalizing the disapproval of parts of Louisiana's long-term strategy, EPA reiterated that "Louisiana must consider whether EGUs previously covered by the CAIR, whether subject to BART or not, should be controlled to ensure reasonable progress to meet the State's long-term strategies." 77 Fed. Reg. at 39,427.

Under the Clean Air Act, after EPA disapproves a state plan, EPA must issue a replacement plan within two years of the disapproval, unless EPA approves a corrected state plan. 42 U.S.C. § 7410(c)(1). When EPA failed to meet this

obligation, Sierra Club filed suit, and the district court entered a consent decree requiring EPA to issue a federal plan or approve a corrected state plan by December 15, 2017. *See* Notice of Modification of Consent Decree, *Sierra Club v. Pruitt*, No. 15-cv-01555-JEB (D.D.C. Mar. 13, 2017), ECF Doc. 28.

B. Louisiana's Revised Haze Plan

After EPA's disapproval of significant portions of Louisiana's haze plan, the State submitted a revised plan in stages. On August 11, 2016, the State submitted a partial plan addressing BART for sources other than power plants, which EPA approved. 82 Fed. Reg. at 60,521-22. That approval is not at issue in this case.

In a plan submitted to EPA on February 10, 2017, the State addressed BART for power plants, except for Nelson. *Id.* at 60,522. On June 20, 2017, the State proposed a BART determination for Nelson, and then revised the BART determination for Nelson determination on October 26, 2017. *Id.*

Louisiana's revised plan does not require any new pollution controls for power plants. For every facility, Louisiana determined that the existing controls represent the "best" controls available.

1. The BART Determination for Nelson[11]

Nelson has no post-combustion pollution controls for reducing sulfur dioxide emissions. The State evaluated four different technologies for reducing sulfur dioxide emissions: low-sulfur coal, dry sorbent injection ("DSI"), a wet scrubber, and a dry scrubber. Low-sulfur coal was the least-effective of these four options for reducing pollution, as EPA found that switching to low-sulfur coal would reduce emissions by only 11%. 82 Fed. Reg. at 32,298.

By contrast, a wet or dry scrubber would remove more than 90% of sulfur dioxide pollution. *Id.* at 32,299. A scrubber would improve visibility by a total of approximately 3 deciviews across 6 Class I areas, *id.* at 32,299-300; at three of these areas, the visibility improvement would exceed 0.5 deciviews, *id.*, the threshold for concluding that a source contributes to haze pollution, 40 C.F.R. pt. 51, App. Y § (III)(A)(1).

The State selected the least-effective option, low-sulfur coal, as the best available technology for Nelson. 82 Fed. Reg. at 32,300. However, Nelson's recent emissions and coal delivery data indicate that the plant has been burning low-sulfur coal for several years, and is already emitting at levels roughly

[11] All references to the BART determination for Nelson are to the BART determination for sulfur dioxide emissions.

equivalent to the limits that EPA determined were the "best available retrofit technology." Stamper Addendum (July 20, 2017), Index 91 at 3.

In determining BART for Nelson, the State relied on analyses submitted by the owner of the plant, Entergy, even though EPA found that Entergy's analyses were riddled with errors. *See, e.g.*, 82 Fed. Reg. at 32,296 (Entergy's analysis "was not conducted in accordance with the BART Guidelines"); *id.* at 32,298 (Entergy's analysis "included costs not allowed under our Control Cost Manual"); CAMx Modeling TSD, Index 5.18 at 31 (the visibility modeling relied on by the State has "a number of short comings").

As a result of these widespread flaws, Entergy's analysis overstated the cost-effectiveness of low-sulfur coal by nearly four times, as EPA found that low-sulfur coal would cost $2,957 per ton rather than the $597 per ton Entergy calculated. 82 Fed. Reg. at 32,298. Entergy's analysis also underestimated the cost-effectiveness of a dry scrubber by 68%, as EPA found a dry scrubber would cost only $2,706 per ton, far less than the $4,536 per ton Entergy calculated. *Id.* at 32,298-99. The following table summarizes the differences between EPA's analysis and the Entergy analysis on which the State relied.

Cost-effectiveness of Technologies for Reducing SO_2 Emissions from Nelson[12]

Technology	Entergy's Calculation[13]	EPA's Calculation[14]
Low-sulfur coal	$597	$2,957
DSI	$5,611	$3,578 - $4,302[15]
Wet scrubber	$4,413	$2,743
Dry scrubber (SDA)	$4,536	$2,706

The errors in the Entergy analysis on which the State relied made low-sulfur coal appear far cheaper than it is. These errors also made the more effective option, a scrubber, appear more expensive than it is. *See* 82 Fed. Reg. at 32,298-99.

Just as EPA found that the cost analysis the State relied on was flawed, EPA

[12] Although switching to low-sulfur coal costs less on an absolute basis than installing a scrubber, EPA has long interpreted the Regional Haze Rule to require an evaluation of the cost per ton of pollutant removed. Using this metric, low-sulfur coal is actually more expensive than a scrubber because it is an extremely inefficient method of reducing SO_2 pollution. A scrubber, on the other hand, commonly achieves greater than 90% removal efficiency, and thus, on a cost per ton basis, is more cost effective.

[13] 82 Fed. Reg. at 32,298; Trinity Consultants, BART Five-Factor Analysis (Rev. Apr. 15, 2016), Index 21.70 at 4-4.

[14] 82 Fed. Reg. at 32,298-99; *see also* EPA, Technical Support Document (June 2017), Index 5.23 at 28 (DSI costs), 34 (SDA), 45 (all controls).

[15] EPA provided several estimates of the cost of DSI. The estimates differed because EPA calculated costs at different injection rates that would lead to different percentages of sulfur dioxide being removed (e.g., 50% versus 80% removal efficiencies).

also found that the visibility modeling the State relied on failed to follow applicable guidelines and made numerous errors. The table below shows the visibility improvement that would result from each potential pollution control technology at Nelson, and compares the analysis relied on by the State (done by Trinity Consultants) to EPA's analysis. The numbers represent the visibility improvement in deciviews, which is the unit that states and EPA use for measuring visibility.[16]

Expected Visibility Improvement (in deciviews) at Caney Creek[17] from Technologies for Reducing Nelson's SO_2 Emissions

Technology	Trinity Consultants' Calculation[18]	EPA's Calculation[19]
Low-sulfur coal	0.164	0.411
DSI	0.302	0.511
Dry scrubber (SDA)	0.355	0.831

[16] "[T]he deciview is an atmospheric haze index that expresses changes in visibility. This visibility metric expresses uniform changes in haziness in terms of common increments across the entire range of visibility conditions, from pristine to extremely hazy conditions." 64 Fed. Reg. at 35,725. A higher deciview value indicates greater visibility impairment. *Id.* at 35,715 n.5.

[17] EPA found that the Caney Creek Wilderness Area in Arkansas is the Class I area most impacted by emissions from the Nelson power plant. *See* 82 Fed. Reg. at 32,299.

[18] Trinity Consultants, BART Five-Factor Analysis (Rev. Apr. 15, 2016), Index 21.70 at 4-6.

[19] 82 Fed. Reg. at 32,299-300.

Despite having found that the analyses the State relied on were severely flawed and violated applicable rules, EPA approved the State's BART determination for Nelson. 82 Fed. Reg. at 60,523.

2. The Long-Term Strategy and Reasonable Progress Analysis

As noted above, the Clean Air Act requires each state, in adopting a haze plan, to consider four factors when determining the emission reductions "necessary to make reasonable progress toward meeting the national goal." 42 U.S.C. § 7491(b)(2); 40 C.F.R. § 51.308(d), (e). In 2012, EPA disapproved parts of Louisiana's long-term strategy, and stated that "Louisiana will have to consider whether EGUs previously covered by the CAIR, whether subject to BART or not, should be controlled to ensure reasonable progress" to meet the State's long-term strategies. 77 Fed. Reg. at 11,841.

Louisiana's revised plan does not contain an evaluation of the four factors specified by 42 U.S.C. § 7491(g)(1) to determine whether any non-BART sources should be controlled to ensure reasonable progress. Despite EPA's prior statement that Louisiana would need to consider whether power plants, even those not subject to BART, should be controlled to make reasonable progress, EPA approved Louisiana's failure to do so. 82 Fed. Reg. at 60,540.

EPA approved Louisiana's revised plan in its entirety on December 21, 2017. 82 Fed. Reg. 60,520. Petitioners timely filed this petition for review on February 16, 2018.

SUMMARY OF THE ARGUMENT

More than a decade after the Clean Air Act required Louisiana's plan for reducing haze pollution to be in place, EPA approved a plan that will result in virtually no reductions in air pollution. The State's do-nothing plan violates core provisions of the Clean Air Act, and EPA's approval is unlawful because the statute forbids EPA from approving a state plan that violates the Act's requirements.

EPA acted unlawfully in approving the State's decision that the best available technology, or BART, for the Nelson power plant is the use of low-sulfur coal, which is the least-effective option for reducing sulfur dioxide pollution. EPA found the analysis upon which the State based its proposed BART decision to be riddled with errors. Yet EPA nonetheless approved the State's BART determination, on the ground that the State had included EPA's corrected analyses in the record. But it is not enough for the record to contain an accurate analysis. The State's decision must be consistent with the record evidence, and here, the State's BART determination is inconsistent with EPA's corrected analyses. Therefore, EPA's approval of the State's plan is unlawful and arbitrary.

Moreover, neither the State nor EPA provided a rational basis for rejecting pollution controls that have cost-effectiveness and visibility values in line with the BART determinations that other states and EPA have issued. The State also failed to consider several factors that the Clean Air Act and the BART Guidelines require each state to consider when making BART determinations.

In addition to the BART determination for Nelson, EPA unlawfully approved the State's long-term strategy. The Clean Air Act specifies that the long-term strategy consists of both BART and any other measures necessary to make reasonable progress toward eliminating man-made haze pollution (so-called reasonable progress measures). EPA concedes that the State's plan contains no analysis of reasonable progress measures.

When EPA disapproved the State's long-term strategy in 2012, EPA noted that the State would have to conduct a reasonable progress analysis for all power plants—whether subject to BART or not—in order to produce an approvable long-term strategy. The State failed to do what EPA said must be done to comply with the Act, and therefore EPA was required to disapprove the State's plan.

EPA claims that it disapproved the State's long-term strategy in 2012 solely because of deficient BART determinations, and now that the BART determinations are fixed, so, too, is the long-term strategy. EPA's newfound account of its 2012 disapproval actions is flatly contradicted by what EPA actually said in 2012, when

the agency found that the State would need to assess whether reasonable progress measures are necessary at both BART and non-BART sources. In addition, EPA's rationale appears for the first time in the final rule, and therefore violates the agency's obligation to provide notice and an opportunity to comment on the major legal interpretations underlying a rule.

STANDARD OF REVIEW

EPA's approval of the Louisiana regional haze plan must be vacated if the decision was arbitrary, capricious, an abuse of discretion, or otherwise inconsistent with the Clean Air Act and implementing regulations. *See* 42 U.S.C. § 7607(d)(9). The "standard of review of Clean Air Act actions tracks standards provided by [the] Administrative Procedure Act, 5 U.S.C. § 706." *Texas v. EPA*, 829 F.3d 405, 425 (5th Cir. 2016) (citing *Luminant Generation Co. v. EPA*, 675 F.3d 917, 925 (5th Cir. 2012)).

Under the Administrative Procedure Act ("APA"), agency action is arbitrary and capricious if "the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983). The court "must

disregard any *post hoc* rationalizations of the EPA's action and evaluate it solely on the basis of the agency's stated rationale at the time of its decision." *Luminant Generation Co.*, 675 F.3d at 925.

ARGUMENT

I. SIERRA CLUB AND NPCA HAVE STANDING.

Sierra Club and NPCA have standing to challenge the approval of the Louisiana regional haze plan. To satisfy Article III's standing requirements, "a plaintiff must show (1) it has suffered an 'injury in fact' that is (a) concrete and particularized and (b) actual or imminent, not conjectural or hypothetical; (2) the injury is fairly traceable to the challenged action of the defendant; and (3) it is likely, as opposed to merely speculative, that the injury will be redressed by a favorable decision." *Friends of the Earth, Inc. v. Laidlaw Envtl. Servs. (TOC), Inc.*, 528 U.S 167, 180-81 (2000). "An association has standing to bring suit on behalf of its members when its members would otherwise have standing to sue in their own right, the interests at stake are germane to the organization's purpose, and neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit." *Id.* at 181. The presence of one party with standing is sufficient to satisfy Article III's case-or-controversy requirement. *Rumsfeld v. Forum for Acad. and Inst. Rights, Inc.*, 547 U.S. 47, 52 n.2 (2006).

Sierra Club and NPCA members would have standing in their own right to

challenge provisions of the Final Rule that do not adequately reduce haze pollution. The Final Rule will result in little to no reductions in air pollution beyond what facilities are already emitting. EPA's approval consigns Sierra Club's and NPCA's members to breathing more polluted air and otherwise experiencing worse air quality than is guaranteed by the Clean Air Act.

By failing to require adequate reductions in air pollution from the Louisiana power plants that cause haze, the Final Rule harms the protected recreational, environmental, aesthetic, and health interests of the thousands of Sierra Club and NPCA members who use and enjoy public lands.[20] Members of Sierra Club and NPCA regularly visit the Class I areas in Louisiana, Arkansas, and Missouri that are impaired by air pollution from Louisiana sources. For example, Sierra Club member Glen Hooks recounts a trip with his sons to the Upper Buffalo Wilderness in Missouri:

> My sons were aged seven and four years old and we went on a canoeing trip. For most of the trip, both boys were loudly talking. I distinctly remember rounding a bend in the Upper Buffalo River and both boys immediately became quiet as they gazed at the cliffs. This experience vividly demonstrated to me the power of wild places and natural vistas to command human attention.

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[20] The Sierra Club has nearly 800,000 members nationwide, including 3,170 members in Louisiana, 3,140 members in Arkansas, and 11,401 members in Missouri. Declaration of Michelle Epstein ¶ 4 (July 26, 2018) ("Epstein Decl."). NPCA has 2,389 members in Louisiana, 2,178 members in Arkansas, and 8,445 members in Missouri. Declaration of Stephanie Kodish ¶ 5 (July 24, 2018) ("Kodish Decl.").

Declaration of Glen Hooks ¶ 11 (July 27, 2018) ("Hooks Decl."). NPCA and Sierra Club members regularly visit areas such as the Upper Buffalo to, among other things, enjoy the unique vistas, and therefore each is harmed by the haze that diminishes views in these otherwise wild places. *See* Declaration of Robert Allen ¶¶ 5-7 (July 30, 2018) ("Allen Decl.") (describing hiking in the Upper Buffalo Wilderness Area, where views are impaired by haze pollution); Eustis Decl. ¶ 8 (explaining that haze pollution in Breton National Wildlife Refuge harms his ability to view wildlife and enjoy "big sky" days out on the water around the Refuge); Declaration of John Hickey ¶ 9 (July 24, 2018) ("Hickey Decl.") (explaining that the Mingo National Wildlife Refuge "is one of the few places in [Missouri] where one can enjoy a truly large, open vista," but the views are diminished by haze pollution); Declaration of G. Thomas McKinney ¶¶ 7-10 (June 26, 2018) ("McKinney Decl.").

NPCA and Sierra Club members live, work, and recreate in areas where they suffer from breathing excess air pollution from Louisiana power plants. Allen Decl. ¶¶ 2, 4-6; Eustis Decl. ¶¶ 2, 6-15; Hickey Decl. ¶¶ 2, 5-7; Hooks Decl. ¶¶ 2, 10-12; McKinney Decl. ¶¶ 2, 7-10, 12. NPCA and Sierra Club members are reasonably concerned about the adverse health and environmental impacts of EPA's decision to approve a plan that will not require more stringent pollution controls. This is sufficient to demonstrate injury-in-fact for purposes of Article III

standing.[21] These injuries to NPCA and Sierra Club members' aesthetic, recreational, and health interests are fairly traceable to EPA's unlawful approval of inadequate pollution controls for Louisiana power plants. [22]

If this Court were to grant the petition for review and remand to EPA to consider requiring more stringent pollution limits for Louisiana power plants, then the aesthetic, recreational, and health harms to NPCA and Sierra Club members would be redressed. *See Bennett v. Spear*, 520 U.S. 154, 170-71 (1997) (plaintiffs satisfied the "relatively modest" redressability requirement where a finding that the agency had acted illegally would require the agency to reevaluate its final decision).

Finally, NPCA and Sierra Club satisfy the requirements of associational standing because the interests at stake are germane to the purposes of both organizations,[23] and this case does not require the participation of any individual

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[21] *Friends of the Earth, Inc.*, 528 U.S. at 183-84; *see also Sierra Club, Lone Star Chapter v. Cedar Point Oil Co. Inc.*, 73 F.3d 546, 557 (5th Cir. 1996).

[22] As discussed *supra* pages 10-12, air pollution from the Nelson and Dolet Hills power plants degrades visibility in six national wildlife refuges and wilderness areas in Arkansas, Louisiana, Missouri, and Oklahoma. *See* 82 Fed. Reg. at 32,299-300; Gray Report, Index 142 at 6.

[23] Sierra Club's mission is to protect and restore wild places, and the organization has advocated across the country, including in Arkansas and Missouri, for regional haze plans that adequately protect human health and natural areas. Epstein Decl. ¶¶ 6-8; Hooks Decl. ¶¶ 5-8. Similarly, NPCA is a nonprofit organization with a mission of protecting and enhancing America's national parks for the use and enjoyment of present and future generations. Kodish Decl. ¶¶ 4-6.

members. *See Int'l Union, United Auto., Aerospace and Agric. Implement Workers of Am. v. Brock*, 477 U.S. 274, 287-88 (1986). Thus, NPCA and Sierra Club have standing to bring this case.

II. EPA'S APPROVAL OF THE BART DETERMINATION FOR THE NELSON POWER PLANT IS UNLAWFUL.

EPA can approve a state plan only "if it meets all of the applicable requirements" of the Clean Air Act. *See* 42 U.S.C. § 7410(k)(3). The State's determination of the best available retrofit technology for reducing sulfur dioxide emissions from the Nelson power plant violated multiple Clean Air Act requirements, and therefore EPA's approval of the BART determination for Nelson is arbitrary and capricious and otherwise unlawful, as explained below.

The State claimed that the least-effective pollution control technology, low-sulfur coal, is the best available retrofit technology for Nelson. But low-sulfur coal fails to meet even EPA's "presumptive" limits for BART. *See* 40 C.F.R. pt. 51, App. Y § (IV)(E)(4). The presumptive BART limit is a 95% reduction in sulfur dioxide emissions, *id.*, whereas, at best, EPA estimates that low-sulfur coal will reduce only 11% of sulfur dioxide emitted by Nelson, 82 Fed. Reg. at 32,298.

A. <u>EPA Cannot Approve A State Decision that is Inconsistent with the Evidence and Is Based on Analyses that EPA Has Found To be Riddled with Errors.</u>

EPA's approval of the sulfur dioxide BART determination for Nelson is a hallmark example of arbitrary decisionmaking, as the agency approved a decision

that rested on an analysis EPA found to be severely flawed. EPA set a clear standard for evaluating state implementation plans: "states are free to determine the weight and significance of each of the factors listed above, but they must arrive at a reasoned determination that is supported by an adequate record." 77 Fed. Reg. at 39,432. Here, Louisiana's BART decision is not "reasoned" and is not "supported by an adequate record," *id.*, and therefore EPA was required to disapprove the BART determination for Nelson.

The State's proposed BART determination for Nelson rested solely on an analysis prepared by Nelson's owner, Entergy, that EPA found to be severely flawed. Specifically, EPA was "unable to verify *any* of the company's costs," because they were based on a proprietary database that EPA could not access. 82 Fed. Reg. at 32,298 (emphasis added). EPA also found that the visibility modeling on which the State relied could not be verified, because the company would not provide the inputs that were used in the modeling. CAMx Modeling TSD, Index 5.18 at 29 ("Trinity did not provide model inputs, such as emissions or stack parameters, or provide worksheets utilized for post-processing, or any of the actual CAMx modeling files so our review is limited only to general description [sic] of the modeling protocol provided in the various CAMx modeling reports provided by Entergy").

For the parts of the analysis that EPA could actually review, the agency concluded that the cost and visibility analyses on which the State relied were riddled with errors:

- "Entergy's control cost estimates included costs not allowed under our Control Cost Manual (*e.g.*, escalation during construction and owner's costs)." 82 Fed. Reg. at 32,298;
- "Entergy also assumed a contingency of 25%, which we note is unusually high." *Id.*;
- "Entergy's CALPUFF modeling included errors in its estimates of sulfuric acid and PM emissions." *Id.* at 32,299;
- "[Entergy's] modeling was not conducted in accordance with the BART Guidelines and does not properly assess maximum baseline impacts, so we consider this CAMx modeling provided by Entergy to be invalid for supporting a determination of minimal visibility impacts." *Id.*;
- Trinity estimated the baseline emissions when actual emissions data were available and should have been used. CAMx Modeling TSD, Index 5.18 at 29-30;
- Trinity's approach for calculating maximum visibility impacts "has a number of shortcomings," *id.* at 31;

- Trinity's CAMx modeling significantly underestimated Nelson's baseline visibility impacts. *Id.* at 32-33.[24]

These errors were not harmless. These flawed analyses dramatically overestimated the costs of the most effective pollution controls, and underestimated the benefits of such controls. Indeed, the errors were so widespread that they caused the analysis the State relied on to overestimate the cost of a scrubber by 68% and underestimate the cost of low-sulfur coal by roughly 400%. *See* 82 Fed. Reg. at 32,298-99 (showing that EPA found that low-sulfur coal would cost $2,957 per ton rather than the $597 per ton Entergy calculated, and that a dry scrubber would cost only $2,706 per ton rather than the $4,536 per ton Entergy calculated).

Relying on Entergy's consultant's reports, which EPA found to be thoroughly flawed, the State concluded that the best available retrofit technology was the least-effective option: low-sulfur coal. 82 Fed. Reg. at 32,300. The final plan that the State submitted, and which EPA approved, made only a single change to the proposed BART determination for Nelson: the State extended the deadline

[24] *See also* Letter from Guy Donaldson, EPA, to Entergy Services (May 20, 2015), Index 21.23 (describing deficiencies in modeling); Letter from Kelly McQueen to Guy Donaldson, EPA (Apr. 15, 2016), Index 21.53 (purporting to address EPA concerns about modeling and cost methodology, but declining to correct errors and deficiencies).

for using the least-effective pollution control technology, low-sulfur coal. *See* 82 Fed. Reg. at 60,522, 60,541. Relative to a cost-effective scrubber, the State's decision to use low-sulfur coal will result in an additional 8,000 tons of sulfur dioxide being emitted each year,[25] which will in turn lead to significantly worse air quality.[26]

In attempting to justify approval of a decision based on analyses EPA found to be thoroughly flawed, EPA now argues that EPA submitted its own analyses to the State, and these analyses are in the record. *See* 82 Fed. Reg. at 60,532, 60,535. But EPA cannot discharge its obligation to review a state plan submittal merely by pointing to information in the record. Instead, EPA's own interpretation of the Clean Air Act is that the information in the record must support the decisions in the state plan, such that the state's decision are "reasoned" and "supported by an adequate record." 77 Fed. Reg. at 39,432 (a state "must arrive at a reasoned determination that is supported by an adequate record"); *see also North Dakota v.*

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[25] EPA calculated that low-sulfur coal would reduce sulfur dioxide emissions by 1,149 tons per year whereas a dry scrubber would reduce emissions by 9,361 tons per year. 82 Fed. Reg. at 32,298-99. The difference between the two options is 8,212 tons, or approximately 8,000 tons of sulfur dioxide per year. As noted elsewhere, *supra* pages 16-18, Petitioners disagree with EPA that requiring low-sulfur coal will reduce emissions at all, given the record evidence that Nelson already uses low-sulfur coal.

[26] The record demonstrates that a dry scrubber at Nelson would result in at least *double* the visibility benefits over low-sulfur coal at each and every affected Class I area. 82 Fed. Reg. at 32,299-300, tbl. 2.

EPA, 730 F.3d 750, 761, 766 (8th Cir. 2013) (a state's BART determination must be "reasoned" and "reasonably moored to the CAA's provisions"). Indeed, the Supreme Court long ago held that the mere existence of facts in the record is not sufficient to uphold a decision; instead, EPA must supply a "'rational connection between the facts found and the choice made.'" *Motor Vehicle Mfrs. Ass'n of U.S., Inc.*, 463 U.S. at 43.

Here, the State's proposed BART determination, which was supported solely by studies EPA found to be thoroughly flawed, did not change (except for the deadline extension) after EPA submitted its own analyses to the State. In other words, after EPA informed the State that the analysis the State had relied on was thoroughly flawed, the State still made the same decision—which EPA then approved. The State utterly failed to "arrive at a reasoned determination that is supported by an adequate record." 77 Fed. Reg. at 39,432.

In sum, EPA's position is that the agency can approve a state decision based on an analysis that violates applicable rules and is erroneous, so long as a lawful, error-free analysis is in the record—even though the corrected analysis does not support the state's decision. Not only does EPA's position have no basis in the law, EPA's position contradicts the agency's own statement that a state "must arrive at a reasoned determination that is supported by an adequate record." *Id.* Under these circumstances, it was arbitrary and capricious, and violated EPA's

duties under the Clean Air Act, for EPA to approve a BART determination that was based on flawed analyses and was inconsistent with the analyses EPA had conducted. *See Motor Vehicle Mfrs. Ass'n of U.S., Inc.*, 463 U.S. at 43; *North Dakota*, 730 F.3d at 761 ("[W]e reject the argument that EPA is required . . . to approve a BART determination that is based upon an analysis that is neither reasoned nor moored to the CAA's provisions."); *Sierra Club v. EPA*, 671 F.3d 955, 967 (9th Cir. 2012) ("[I]f new information indicates to EPA that an existing SIP or SIP awaiting approval is inaccurate or not current, . . . EPA should properly evaluate the new information and may not simply ignore it without reasoned explanation of its choice.").

B. Neither EPA nor the State Provided a Rational Basis for Rejecting More Effective Pollution Controls.

EPA acted unlawfully in approving the BART determination for Nelson because neither the State nor EPA provided a rational basis for rejecting pollution controls with costs and benefits comparable to controls that other states, and EPA, have selected as BART.

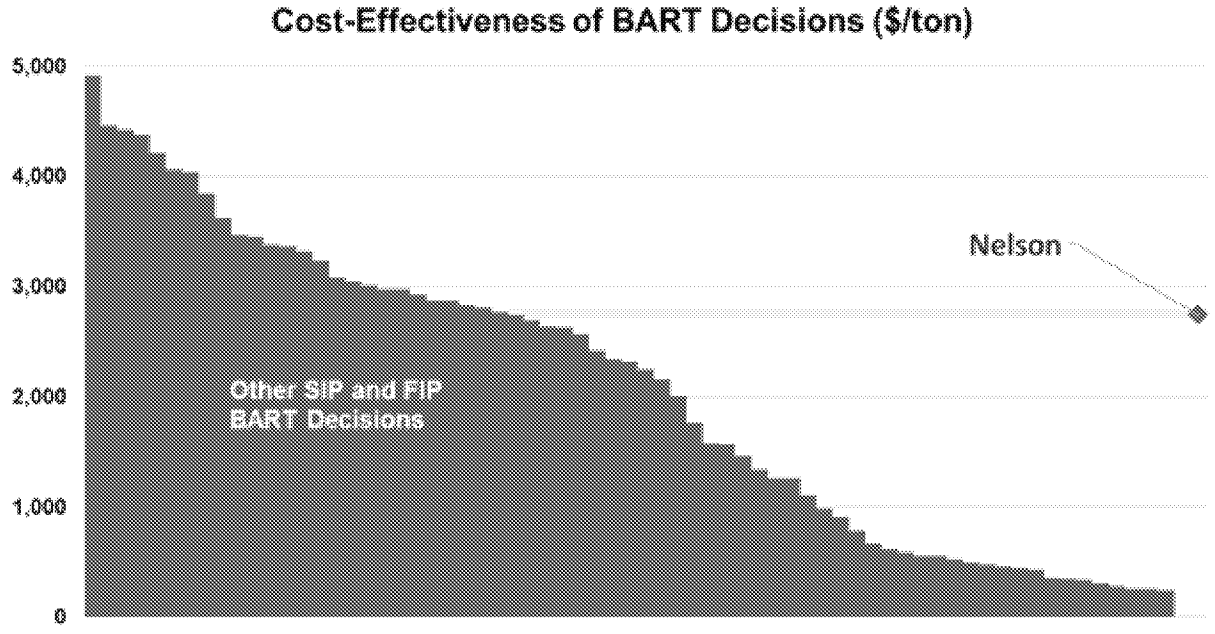
States and EPA typically give the most weight to two of the five BART factors: cost-effectiveness, usually measured in dollars per ton of pollutant removed, and visibility benefits, typically measured in deciviews. *See, e.g.*, 81 Fed. Reg. at 66,391 (stating that for the Arkansas regional haze plan, "the cost and visibility factors were the two most important factors in our decisions"). Here,

EPA found that installing and operating a dry scrubber at Nelson would cost approximately $2,706 per ton and improve visibility by 0.831 deciviews at Caney Creek,[27] the area most impacted by Nelson. *See* 82 Fed. Reg. at 32,298-99.

Both the cost-effectiveness and visibility improvement are well within the range of values for BART determinations made by other states as well as by EPA, as shown by the figures below. The following figure displays the average cost-effectiveness of final BART determinations approved, or issued, by EPA. The average cost-effectiveness of a scrubber at Nelson is represented by a diamond and indicates that the cost is well within the range of cost-effectiveness values that numerous states and EPA have found reasonable for BART.

[27] EPA also found that a dry scrubber would improve visibility by 0.266 deciviews at Breton, by 0.430 deciviews at Mingo, by 0.663 deciviews at Upper Buffalo, by 0.548 deciviews at Hercules-Glade, and by 0.360 deciviews at the Wichita Mountains. *Id.*

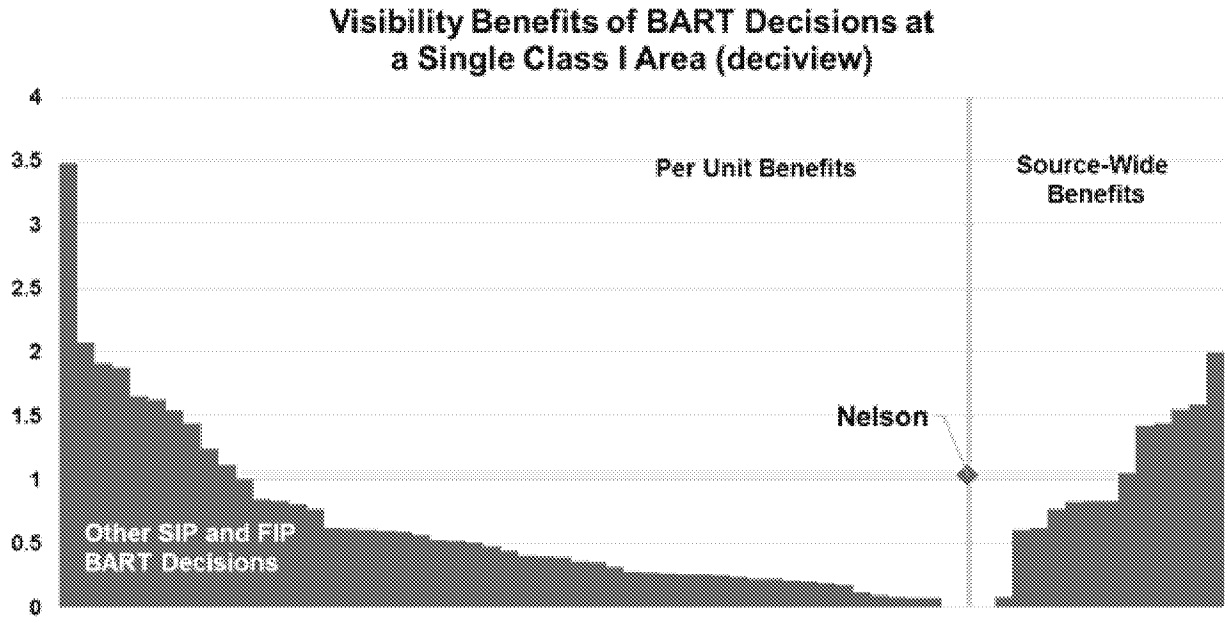
Cost-Effectiveness of a Dry Scrubber at Nelson Compared to Cost-Effectiveness of Controls Selected as BART by Other States and EPA[28]



The next figure displays, for BART determinations approved, or issued, by EPA, the visibility improvement at the most-impacted Class I area resulting from installation and operation of BART pollution controls. The diamond shows the visibility improvement that operating a scrubber at Nelson would achieve at Caney Creek, which is the area most affected by Nelson's emissions. The figure demonstrates that the visibility improvement from operating a scrubber at Nelson is well within the range of values for final BART determinations EPA has approved or issued. Indeed, operating a scrubber at Nelson would improve visibility more than BART controls at most facilities.

[28] Earthjustice, Sierra Club, and NPCA, Comments to EPA on Nelson BART (Aug. 14, 2017), Index 70 at 6.

Visibility Benefits of a Dry Scrubber Compared to Benefits of Controls Selected as BART by Other States and EPA[29]



The State's plan does not compare the numbers for the most effective pollution control, a scrubber, to the cost-effectiveness and visibility improvement values that other states and EPA have found to be reasonable. EPA's sole explanation is that the agency is not required to act uniformly and some variation is permitted because BART determinations are fact-specific. *See* 82 Fed. Reg. at 60,535.

EPA ignores that case-by-case BART determinations must be done by consistently applying the agency's rules and following its prior practices, unless the agency acknowledges and explains deviation from past practice. *See Encino*

[29] *Id.* at 7.

Motorcars, LLC v. Navarro, 136 S. Ct. 2117, 2125-26 (2016) ("[T]he agency must at least 'display awareness that it is changing position' and 'show that there are good reasons for the new policy.'" (quoting *FCC v. Fox Television Stations*, 556 U.S. 502, 515 (2009))); *Motor Vehicle Mfrs. Ass'n of U.S., Inc.*, 463 U.S. at 42 ("If Congress established a presumption from which judicial review should start, that presumption . . . is not *against* safety regulation, but *against* changes in current policy that are not justified by the rulemaking record."). In determining the reasonableness and approvability of a state's BART determination, as well as when issuing its own BART determinations in a federal plan, EPA has consistently focused on whether the costs and visibility benefits are within the range of prior BART decisions. *See, e.g.*, 82 Fed. Reg. 912, 938 (Jan. 4, 2017) ("the cost-effectiveness of all of the controls that form the basis of our proposed BART determinations are within a range found to be acceptable in other cases"); 80 Fed. Reg. 18,944, 18,952 (Apr. 8, 2015) ("[t]he cost effectiveness . . . is within the range of what we consider to be cost-effective for BART").

Indeed, it is not only EPA's past practice, but the mandatory BART Guidelines, that require BART to be determined by reference to prior BART determinations. 40 C.F.R. pt. 51, App. Y § (IV)(D)(4)(f) ("A reasonable range would be a range that is consistent with the range of cost effectiveness values used in other similar permit decisions over a period of time.").

Here, in a departure from past practice, neither the State nor EPA compared the cost-effectiveness and visibility improvement from the most effective option, a scrubber, to the cost-effectiveness and visibility improvement of other BART determinations. Nor did the State or EPA provide a rational explanation for rejecting the most-effective pollution control, a scrubber, that has cost-effectiveness and visibility improvement values within the range that other states and EPA have found to be reasonable for BART determinations. EPA's "unexplained deviation from past practice" of comparing a proposed BART determination to prior BART determinations renders EPA's decision "arbitrary and capricious." *WildEarth Guardians v. EPA*, 770 F.3d 919, 941 (10th Cir. 2014)

C. **The State's BART Determination for Nelson Violates the BART Guidelines' Instructions on How to Consider the Clean Air Act's Statutory Factors.**

The State's BART determination for Nelson violates the mandatory BART Guidelines' instructions on how to consider the five statutory factors when making a BART determination. The Clean Air Act requires that five factors be considered in a BART determination. 42 U.S.C. § 7491(g)(2). Under the Act, BART determinations for power plants larger than 750 megawatts ("MW") must be made pursuant to the BART Guidelines issued by EPA. *Id.* § 7491(b)(2)). EPA finalized the BART Guidelines in 2005. *See* 70 Fed. Reg. 39,104 (July 6, 2005), codified at 40 C.F.R. pt. 51, App. Y.

Here, EPA "agree[d] with the comment that the total capacity of the Nelson facility exceeds 750 MW and that *the State* was therefore required to determine BART pursuant to the BART Guidelines for this source." 82 Fed. Reg. at 60,533 (emphasis added); *see also Oklahoma v. EPA*, 723 F.3d 1201, 1212 (10th Cir. 2013) (upholding EPA's disapproval of the State of Oklahoma's BART determination "as not complying with the [BART] guidelines"). As a result, and as required by the Clean Air Act, *the State*—not Entergy and not EPA—was required to make the initial BART determination for Nelson,[30] which EPA then had to review to determine whether it complied with the Act. 42 U.S.C. § 7410(k)(3).[31] Thus, in order for the BART determination for Nelson to be approvable, there must be evidence in the record that the State considered and weighed each of the five statutory factors, *id.* § 7491(g)(2), and did so in strict accordance with the BART Guidelines, *id.* § 7491(b)(2).

Here, the State's BART determination for Nelson violates the Clean Air Act and the BART Guidelines in four separate ways. Specifically, the State failed to

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[30] *See* 42 U.S.C. § 7491(b)(2)(A) (each haze plan must require certain sources to install and operate "the best available retrofit technology, *as determined by the State*" (emphasis added)).

[31] Under the Clean Air Act, EPA would be required to make the BART determination if the state failed to timely submit a plan or submitted an unlawful plan, and EPA did not approve a corrected plan within two years. *Id.* § 7410(c)(1).

independently evaluate: (1) the existing pollution controls in use at Nelson; (2) the remaining useful life of Nelson; (3) the cost-effectiveness of pollution controls; and (4) the visibility benefits of pollution controls.

In the preamble to the final rule, EPA responded that the State claimed to have considered all the information in the record, including analyses by Entergy and EPA that considered all five BART factors. 82 Fed. Reg. at 60,532. EPA mistakenly claimed that its responsibility was simply to determine whether the State "had adequate information to make its decision." *Id.* at 60,537. But even if adequate information is in the record, that does not mean that the State weighed and analyzed that information, and that there is a "'rational connection between the facts found and the choice made.'" *Motor Vehicle Mfrs. Ass'n of U.S., Inc.*, 463 U.S. at 43. Even if adequate information is in the record to support a decision the agency could have made, an agency's decision is arbitrary and capricious if it "runs counter to the evidence before the agency." *Id.*

1. The State failed to consider existing controls in use at the source.

The State violated the Clean Air Act and the BART Guidelines by failing to consider "any existing pollution control technology in use at the source." 42 U.S.C. § 7491(g)(2); 40 C.F.R. pt. 51, App. Y § (I)(C)(2)(c). Consideration of existing pollution controls is important because it enables the state and EPA to determine the difference between current operations and the emissions reductions

and visibility improvement that would be achieved by installing new pollution controls.

Here, the only evidence of the factors that the State considered and weighed appears in a single paragraph of the state plan. *See* La. Dept. of Envtl. Quality, Regional Haze State Implementation Plan (Oct. 2017), Index 14.1 at pdf p. 6, para. 4. Nowhere in that paragraph does the State discuss how it weighed the existing pollution controls in use at Nelson. As a result, there is no evidence the State considered one of the mandatory statutory factors, "any existing pollution control technology in use at the source," 42 U.S.C. § 7491(g)(2). The State's BART determination therefore violated both the Clean Air Act, 42 U.S.C. § 7491(g)(2), and the BART Guidelines, 40 C.F.R. pt. 51, App. Y § (I)(C)(2)(c), and EPA's failure to disapprove the State's BART determination was arbitrary and unlawful. *See North Dakota*, 730 F.3d at 764 (vacating and remanding the BART determination for Coal Creek Station because EPA failed to "consider the existing pollution control technology in use at the Coal Creek Station").

Nelson has been burning low-sulfur coal since 2015.[32] The State's BART determination fails to evaluate this existing control, and requires nothing new. As

[32] *See* Technical Support Document (June 2017), Index 5.23 at 9 ("[B]eginning in the Spring of 2015, Entergy began purchasing coals with lower sulfur contents that occur in a tighter range in comparison to those it has purchased in the past."); *see also id.* (Entergy "has been purchasing lower sulfur coals and blending them in its feed stream for a number of years" at Nelson), 13-18 (indicating that over the last

a result, the BART determination for Nelson will likely result in no emissions reductions beyond what the plant would otherwise achieve.

2. *The State failed to consider the remaining useful life of the source.*

Similarly, the State's single paragraph weighing some of the BART factors, Index 14.1 at pdf p. 6, fails to mention "the remaining useful life of the source," which must be considered in determining BART. 42 U.S.C. § 7491(g)(2); 40 C.F.R. pt. 51, App. Y § (I)(C)(2)(d). This failure is significant because key cost metrics depend on how long a control will operate. For example, the annual cost of a control is based on the absolute cost divided by the number of years the control will operate. To take a hypothetical and simplified example, if a pollution control costs $1 million, but the plant will operate for only 5 more years, the annual cost is $200,000. But if the same plant will operate for 20 more years, the annual cost of the control is $50,000 per year. States and EPA focus heavily on the annualized cost of controls, as required by the BART Guidelines. *See* 40 C.F.R. pt. 51, App. Y § (IV)(D)(4)(b) ("'cost' is measured in terms of annualized control costs"). Given that the remaining useful life is critical to the annualized cost of controls, the remaining useful life of the source is a key variable in any BART analysis.

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several years, Entergy has often purchased coal with a sulfur content at or below the limit which the State proposes as BART); Stamper Addendum, Index 91 at 3.

Here, there is no evidence that the State considered and weighed "the remaining useful life" of Nelson, as required by the statute, 42 U.S.C. § 7491(g)(2), and the BART Guidelines, 40 C.F.R. pt. 51, App. Y § (I)(C)(2)(d). Given that the State's BART determination did not comply with applicable requirements, EPA's failure to disapprove the BART determination for Nelson was arbitrary and unlawful.

3. The State failed to consider the cost-effectiveness of controls.

The BART Guidelines also require the State to consider the cost-effectiveness of controls. *Id.* § (IV)(D)(4)(b). Average cost-effectiveness is defined as the annualized cost of a pollution control divided by the tons of pollution reduced by the control. *Id.* § (IV)(D)(4)(c). For example, if a control costs $100,000 and will reduce 1,000 tons of sulfur dioxide, the average cost-effectiveness is $100 per ton.

In the single paragraph in which the State considers and weighs some of the BART factors, the State mentions the annual costs of controls but does not mention or evaluate the cost-effectiveness of those controls, *i.e.*, the cost per ton of sulfur dioxide removed. *See* Index 14.1 at pdf p. 6. The State selects low-sulfur coal over a scrubber because "[w]hile additional visibility benefits may be available through the use of [a scrubber], the lower sulfur coal option results in visibility benefits at a lower annual cost." *Id.*

By basing its decision solely on annual costs and not considering cost-effectiveness, the State made the very error that the BART Guidelines caution states against:

> In the cost analysis, you should take care not to focus on incomplete results or partial calculations. For example, large capital costs for a control option alone would not preclude selection of a control measure if large emissions reductions are projected. In such a case, low or reasonable cost effectiveness numbers may validate the option as an appropriate BART alternative irrespective of the large capital costs. Similarly, projects with relatively low capital costs may not be cost effective if there are few emissions reduced.

40 C.F.R. pt. 51, App. Y § (IV)(D)(4)(g). The BART Guidelines require consideration of cost-effectiveness because more effective pollution controls often have higher absolute (*i.e.*, annualized) costs. *See, e.g.*, 82 Fed. Reg. at 32,298-99, tbl. 1 (showing that as the control level of pollution technologies increases, the total annualized cost increases as well). The cost-effectiveness metric allows states and EPA to compare technologies based on each technology's pollution-removal efficiency—*i.e.*, the cost to remove each ton of pollution.

In the preamble to the final rule, EPA claims that it was sufficient for the State to have included cost-effectiveness calculations in the record, even if the State does not discuss how it considered cost-effectiveness in making the BART determination for Nelson. *See* 82 Fed. Reg. at 60,533. As explained above, this argument has no merit. The State is the legal entity that made the BART determination here, as required by statute, 42 U.S.C. § 7491(b)(2)(A), and there is

no place in the record where the State discusses the cost-effectiveness of a scrubber.

EPA also cites the State's claim that it considered the "economics" of the BART decision. *See* 82 Fed. Reg. at 60,533. But the BART Guidelines require states to do more than make broad proclamations of considering "economics." Instead, the BART Guidelines require states to consider the cost of controls in specific ways, including the cost-effectiveness of controls, 40 C.F.R. pt. 51, App. Y § (IV)(D)(4)(b). Here, there is no evidence that when the State weighed the information before it, the State considered cost-effectiveness, as required by the BART Guidelines. The State's BART determination therefore violated the BART Guidelines, and EPA's failure to disapprove the determination was arbitrary and unlawful.

4. The State failed to consider the visibility benefits of controls it rejected.

The State rejected the most effective technology, a scrubber, in favor of the least-effective option, low-sulfur coal, because "[w]hile additional visibility benefits may be available through the use of [a scrubber], the lower sulfur coal option results in visibility benefits at a lower annual cost." Index 14.1 at pdf p. 6. However, the State does not even mention the magnitude of the emission reductions and additional visibility benefits from more effective controls, such as a scrubber. *See id.* In fact, operating a scrubber at Nelson would reduce sulfur

dioxide emissions by more than 9,000 tons per year, *see* 82 Fed. Reg. at 32,298-99, which would in turn improve visibility by more than 3 deciviews across six Class I areas, *id.* at 32,299-300. There is no evidence in the record that the State was aware of how much visibility would improve by using a scrubber versus using low-sulfur coal at Nelson.

The State made the qualitative observation that the least-effective option, low-sulfur coal, would provide some benefits, and at a lower cost, than more effective options. It is arbitrary and capricious for an agency to base a decision on such generic observations, without examining the particular facts before it. It is often the case that the least-effective control technology has the lowest absolute cost, and will provide some small benefit. If a state could make a lawful BART determination by making that generic observation, and then selecting the least-effective option as BART, it would be difficult if not impossible to meet the statutory goal of eliminating all man-made haze pollution, 42 U.S.C. § 7491(a)(1). Likewise, the detailed requirements in the BART Guidelines for how to quantitatively assess costs and benefits, *see* 40 C.F.R. pt. 51, App. Y § (IV)(D)(4)-(5), would be eviscerated if a state could select the least-effective option based merely on the generic observation that the least-effective control provides some benefit, at a lower cost. The State's failure to consider the visibility benefits of the control technologies it rejected renders the State's BART determination unlawful,

and EPA's failure to disapprove the determination was arbitrary and unlawful.

III. EPA'S APPROVAL OF THE LONG-TERM STRATEGY IS UNLAWFUL.

EPA's approval of the Louisiana regional haze SIP violates the Clean Air Act's long-term strategy and reasonable progress requirements. The Act requires each state's haze plan to make reasonable progress toward the national goal of eliminating man-made haze pollution in certain public lands. 42 U.S.C. § 7491(a), (b)(2). In determining the measures that may be necessary to achieve that goal, each state "shall" take into consideration the four reasonable progress factors: the cost of compliance, the time necessary for compliance, the energy and nonair quality environmental impacts of compliance, and the source's remaining useful life. *Id.* § 7491(g)(1). This four-factor analysis, called a reasonable progress analysis, may lead a state to decide that making reasonable progress requires pollution reductions from sources that are not subject to BART.[33] EPA regulations define the "long-term strategy" as the set of enforceable measures—both BART controls and any additional controls resulting from the four-factor reasonable progress analysis—that will ensure reasonable progress is made. *See* 40 C.F.R. § 51.308(d)(3).

[33] As noted previously, a source is "BART-eligible" if it went into operation between August 7, 1962, and August 7, 1977. 42 U.S.C. § 7491(b)(2)(A), (g)(7). Thus, the BART provisions of the Act do not apply to relatively newer sources.

Here, EPA's approval of the State's long-term strategy is unlawful for at least three reasons, as explained below.

A. EPA Unlawfully and Arbitrarily Approved a Plan that Failed to Consider Reasonable Progress Controls for All Louisiana Power Plants, Whether Subject to BART or Not.

EPA unlawfully approved the State's long-term strategy, which violated applicable Clean Air Act requirements by failing to consider reasonable progress controls for sources not subject to the BART requirements. In determining measures that may be necessary to achieve the goal of eliminating man-made pollution in protected parks, the Act requires that each state "shall" take into consideration the four reasonable progress factors: the cost of compliance, the time necessary for compliance, the energy and nonair quality environmental impacts of compliance, and the source's remaining useful life. 42 U.S.C. § 7491(g)(1).

Additionally, EPA regulations contain separate provisions requiring each state to consider the four reasonable progress factors to determine whether pollution reductions are necessary from sources not subject to BART. Each state containing a Class I area must set reasonable progress goals for that area. 40 C.F.R. § 51.308(d)(1). If a state selects a reasonable progress goal that achieves a slower rate of progress than the rate of progress necessary to achieve natural visibility by 2064, the state must demonstrate, based on an evaluation of the four statutory reasonable progress factors, that "that the rate of progress for the

implementation plan to attain natural conditions by 2064 is not reasonable." *Id.* § 51.308(d)(1)(ii). In its 2012 disapproval, EPA found that Louisiana's rate of progress was "slower" than needed to meet the 2064 visibility goal. EPA, Technical Support Document (Feb. 2012), Index 21.17 at 39.

Here, Louisiana's haze plan fails to include a reasonable progress analysis that considers whether additional pollution controls are necessary to make reasonable progress. Any interpretation of the Clean Air Act that excuses the state or EPA from evaluating what measures are necessary to make reasonable progress based on a consideration of those factors is contrary to the plain meaning of the Act, which requires each plan to include "measures as may be necessary to make reasonable progress," 42 U.S.C. § 7491(b)(2), and further requires that reasonable progress be based on a consideration of four factors, *id.* § 7491(g)(1). EPA's approval of a regional haze plan that fails to consider reasonable progress goals or the measures necessary to make reasonable progress violates the plain language of the Clean Air Act and the Regional Haze Rule.

EPA's approach is not only contrary to the requirements of the Clean Air Act and the Regional Haze Rule, it is directly contrary to the agency's position in other regional haze rulemakings. *See* 82 Fed. Reg. at 3080, 3090-91; 79 Fed. Reg. 74,818, 74,828-30 (Dec. 16, 2014). For example, in the recent haze rule for Arkansas, EPA stated that:

> [t]he statute and regulations are both clear that the states or EPA in a FIP have the authority and obligation to evaluate the four reasonable progress factors and that the decision regarding the controls required to make reasonable progress and the establishment of the RPG must be based on these factors identified in the CAA section 169A(g)(1) and the Regional Haze regulations under § 51.308(d)(1)(i)(A).

81 Fed. Reg. at 66,360. EPA's approval of Louisiana's failure to conduct a reasonable progress analysis is contrary to EPA's longstanding interpretation of the Act that states must conduct a four-factor analysis of whether pollution controls are needed at non-BART sources in order to make reasonable progress.

Moreover, EPA has failed to provide a reasoned basis to support a change in its interpretation. *See Encino Motorcars, LLC*, 136 S. Ct. 2117, 2125-26 (when an agency departs from its prior position, "the agency must at least 'display awareness that it is changing position' and 'show that there are good reasons for the new policy'" (quoting *FCC*, 556 U.S. at 515)).

In sum, EPA's approval of a regional haze plan that fails to consider the reasonable progress factors violates the plain language of the Clean Air Act and the Regional Haze Rule.

B. <u>EPA Has Invented an Account of its 2012 Action That is Inconsistent with What EPA Actually Said in the 2012 Action.</u>

EPA's sole defense for approving the State's failure to conduct a reasonable progress analysis is that the agency allegedly disapproved the State's prior reasonable progress analysis only because the State's BART determinations were

deficient. 82 Fed. Reg. at 60,540. EPA's argument is flatly inconsistent with what the agency said in 2012 when it disapproved parts of the State's long-term strategy.

When EPA disapproved portions of the Louisiana's 2008 long-term strategy, the agency concluded that the State's long-term strategy unlawfully relied on deficient BART determinations for some sources, 77 Fed. Reg. at 39,435 ("The regional haze plan submitted by Louisiana on June 13, 2008, does not include fully approvable measures for meeting the requirements of 40 CFR § 51.308(d)(3), long-term strategy for regional haze as it relies on deficient non-electric generating units [BART] analyses[.]"). EPA also found that Louisiana's long-term strategy relied on a rule, the Clean Air Interstate Rule, that had been remanded. 77 Fed. Reg. at 33,653 (disapproving Louisiana's and other states' haze plans that had "relied on CAIR requirements to satisfy the BART requirement and the requirement for a long-term strategy sufficient to achieve the state-adopted reasonable progress goals").

EPA was clear about what the State had to do to comply with the Clean Air Act's long-term strategy requirements: "Louisiana must consider whether EGUs previously covered by the CAIR, whether subject to BART or not, should be controlled to ensure reasonable progress to meet the State's long-term strategies." 77 Fed. Reg. at 39,427. EPA's position was that to meet the long-term strategy

requirements, the State had to assess whether power plants covered by the Clean Air Interstate Rule should be regulated in order to make reasonable progress.

It is uncontested that the State failed to perform the analysis EPA said the State was required to conduct. The State's regional haze plan contains no analysis of whether the long-term strategy should include reductions from power plant emissions—particularly power plants not subject to BART—in order to make reasonable progress.

The State's failure to do what EPA said must be done is not merely academic. The Dolet Hills power plant is the largest single source of sulfur dioxide pollution in Louisiana. Stamper Report, Index 144 at 18. Dolet Hills is not subject to the BART requirements, and instead, under the haze program, can be regulated under reasonable progress. An evaluation of the reasonable progress factors demonstrates that pollution reductions from Dolet Hills would be cost effective and significantly improve air quality in several states. *Id.*

The State and EPA failed to evaluate whether Dolet Hills should reduce its emissions in order to make reasonable progress, even though the evidence in the record indicates that feasible and cost-effective pollution controls are available that would dramatically reduce Dolet Hills' sulfur dioxide pollution. *See id.* at 18-24. Specifically, a scrubber, the technology most effective at reducing sulfur dioxide pollution, "would be extremely cost effective" at Dolet Hills. *Id.* at 24. EPA did

not dispute the evidence that a properly-conducted reasonable progress analysis would show that pollution controls should be required at Dolet Hills to make reasonable progress.

EPA concedes that the State's long-term strategy does not assess whether any power plants, including Dolet Hills, should reduce emissions in order to make reasonable progress. However, in a complete about-face, EPA now claims that the State was not required to perform such an analysis. Specifically, EPA argues that it disapproved the State's long-term strategy in 2012 because of improper BART determinations, and now that those are cured, the long-term strategy is approvable. 82 Fed. Reg. at 60,540.

As a threshold matter, the BART determinations have not been fixed, because EPA's approval of the BART determination for Nelson is unlawful, as explained above in Argument section II. Thus, under EPA's own reasoning, because the State has not corrected all of the BART determinations, the State has not cured the defects in its long-term strategy.

Moreover, EPA's argument is flatly inconsistent with what the agency said in 2012 when it disapproved parts of the State's long-term strategy. EPA cannot point to any statement in its 2012 actions partially disapproving the State's long-term strategy in which EPA said that the defect in the long-term strategy could be cured solely by fixing the BART determinations.

In fact, EPA said exactly the opposite, stating that power plants that were not subject to BART had to be evaluated for reasonable progress controls: "Louisiana must consider whether EGUs previously covered by the CAIR, whether subject to BART or not, should be controlled to ensure reasonable progress to meet the State's long-term strategies." 77 Fed. Reg. at 39,427; *see also* 77 Fed. Reg. at 11,841 ("Louisiana will have to reconsider whether reductions of SO_2 from EGUs, whether subject to BART or not, are appropriate for ensuring reasonable progress."). If the State could fix its long-term strategy solely by fixing its BART determinations, it would make no sense for EPA to have directed the State to assess power plants that are *not* subject to BART. EPA's explanation cannot be reconciled with the plain language of the 2012 final rule partially disapproving the State's long-term strategy.

In short, in 2012, EPA partially disapproved the State's long-term strategy. EPA was clear about what the State had to do in order to comply with the Clean Air Act: assess whether all power plants covered by the Clean Air Interstate Rule, whether subject to BART or not, should be regulated to make reasonable progress. *See* 77 Fed. Reg. at 39,427. The State failed to do what EPA said it must do, and therefore EPA was required to disapprove the State's revised long-term strategy. Accordingly, EPA's approval of the long-term strategy was arbitrary and capricious and contrary to law.

C. EPA Violated Notice and Comment Requirements By Announcing its Rationale for Approving the Long-Term Strategy for the First Time in the Final Rule.

EPA's claim that Louisiana could satisfy the long-term strategy and reasonable progress requirements solely by fixing BART determinations was not mentioned in the proposed rule and instead appeared for the first time in the final rule, 82 Fed. Reg. at 60,540. This violates EPA's obligation to provide prior notice and provide a meaningful opportunity for public comment on a proposed rule.

EPA's failure to provide prior notice and an opportunity to comment on this issue is unlawful regardless of whether the Clean Air Act or the Administrative Procedure Act supplies the rulemaking standard. Both the CAA and the APA require an agency to provide prior notice of, and an opportunity for public comment on, the data and legal interpretations in a proposed rule. *Compare* 42 U.S.C. § 7607(d)(3)(C) (a proposed rule must contain, among other things, "the major legal interpretations and policy considerations underlying the proposed rule"), (d)(5) (requiring an opportunity for public comment on a proposed rule), *with* 5 U.S.C. § 553(b)(3) (requiring a proposed rule to include the "terms or substance of the proposed rule"), (c) (requiring an opportunity for public comment on a proposed rule).

Here, EPA's position that Louisiana was not required to conduct a reasonable progress analysis, 82 Fed. Reg. at 60,540, was a major legal

interpretation underlying the proposed rule, because EPA's interpretation purported to relieve the State of the obligation to comply with the long-term strategy requirements of the Clean Air Act. EPA's failure to provide notice in the proposed rule of this legal interpretation violates the notice and comment provisions of both the Clean Air Act, 42 U.S.C. § 7607(d)(3), (5),[34] and the Administrative Procedure Act, 5 U.S.C. § 553(b), (c).

CONCLUSION

For the foregoing reasons, NPCA and Sierra Club respectfully request that this Court vacate and remand the BART determination for sulfur dioxide for Nelson Unit 6 contained in 40 C.F.R. § 52.970. In addition, the Court should vacate and remand EPA's approval of the long-term strategy component of the Louisiana regional haze plan.

Respectfully submitted this 3rd day of August, 2018.

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[34] Even if the Clean Air Act's rulemaking requirements applied, this procedural error meets the Act's standard for vacatur, namely, that the error is "so serious and related to matters of such central relevance to the rule that there is a substantial likelihood that the rule would have been significantly changed if such errors had not been made," 42 U.S.C. § 7607(d)(8).

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CERTIFICATIONS UNDER ECF FILING STANDARDS AND CERTIFICATE OF COMPLIANCE WITH WORD LIMIT

Pursuant to paragraph A(6) of this Court's ECF Filing Standards, I hereby certify that (1) required privacy redactions have been made, 5th Cir. R. 25.2.13; (2) the electronic submission is an exact copy of the paper document, 5th Cir. R.25.2.1; and (3) the document has been scanned for viruses with the most recent version of a commercial virus scanning program and is free of viruses.

I certify that this brief contains 12,814 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(f) and 5th Cir. R. 32.2 and as counted by counsel's word processing system, and thus complies with the applicable word limit established in Federal Rule of Appellate Procedure 32(a)(7)(B)(i) and the Order granting the briefing schedule which was entered on June 4, 2018 (ECF Doc. 00514499480).

Dated: August 3, 2018

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CERTIFICATE OF SERVICE

I hereby certify that on August 3, 2018, the foregoing was electronically filed with the Clerk of the Court using the CM/ECF system, which will send notification of said filing to the attorneys of record who have consented to electronic service.

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No. 18-60116

IN THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

SIERRA CLUB; NATIONAL PARKS CONSERVATION ASSOCIATION; ENTERGY LOUISIANA, L.L.C.,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY; ANDREW WHEELER, Acting Administrator, United States Environmental Protection Agency,

Respondents.

Petition for Review of Final Administrative Actions of the United States Environmental Protection Agency

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CERTIFICATE OF INTERESTED PERSONS

The undersigned counsel of record certifies that the following listed persons and entities as described in the fourth sentence of Rule 28.2.1 have an interest in the outcome of this case. These representations are made in order that the judges of this court may evaluate possible disqualification or recusal.

1. Petitioners and Respondent-Intervenors: Sierra Club, and National Parks Conservation Association ("NPCA").

   Sierra Club and National Parks Conservation Association are each non-profit organizations that maintain an open membership invitation to organizations, businesses, individuals, and the public in general. Accordingly, their memberships consist of many individual members.

   Neither Sierra Club nor National Parks Conservation Association has parent companies, and no publicly-held company owns a 10% or greater interest in Sierra Club or National Parks Conservation Association.

2. Petitioner and Respondent-Intervenor: Entergy Louisiana, LLC.

3. Respondents: United States Environmental Protection Agency; Andrew Wheeler, Acting Administrator, U.S. Environmental Protection Agency.

4. Respondent-Intervenors: Cleco Power, LLC and Utility Air Regulatory Group.

5. *Amicus Curiae*: Louisiana Department of Environmental Quality.

6. Counsel for Petitioners and Respondent-Intervenors Sierra Club and National Parks Conservation Association: Charles McPhedran and Shannon Fisk, Earthjustice.

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INTRODUCTION

In 1977, Congress amended the Clean Air Act to eliminate visible air pollution, otherwise known as haze, which plagues national parks, wilderness areas, and other public lands across the country. To achieve that goal, the Act requires each state to issue a haze plan requiring older, larger pollution sources to reduce emissions by installing best available retrofit technology ("BART"), which the state must determine by considering five statutory factors in the manner prescribed by the BART Guidelines. The Act also requires states to consider four factors in assessing whether any sources, even those not subject to BART, should reduce emissions to make "reasonable progress" toward eliminating haze.

Louisiana's haze plan violates the Clean Air Act's mandate to make progress toward eliminating haze because it does not require a single source to install new pollution controls. Given the U.S. Environmental Protection Agency's ("EPA's") statutory obligation to disapprove a plan that fails to comply with any applicable requirement of the Act, the agency was required to disapprove Louisiana's plan. Instead, after identifying numerous flaws in the analyses relied upon by Louisiana, the EPA rubberstamped the State's do-nothing plan.

Louisiana's plan violates both the BART and reasonable progress requirements of the Act. Specifically, Louisiana proposed to find that the *best* available retrofit technology for the Roy S. Nelson power plant ("Nelson") is the

continued use of the *least*-effective pollution control: low-sulfur coal. But the State's proposal was based solely on an analysis conducted by Entergy, the owner of Nelson, which EPA found contained multiple flaws. EPA then submitted its own, corrected analysis, which showed that, contrary to Entergy's analysis, low-sulfur coal was more expensive (on a dollar per ton of pollution removed basis) than the most-effective pollution control, a scrubber. EPA also found that a scrubber would improve visibility far more than Entergy had calculated.

Louisiana included EPA's analysis in the record, but finalized its BART determination without any change, without acknowledging EPA's criticisms, and without attempting to reconcile the conflicting EPA and Entergy analyses. In addition, the State never explained how it considered or weighed all five statutory BART factors and all elements required by the BART Guidelines.

EPA repeatedly asserts that Louisiana considered all the BART factors and the State's path can be reasonably discerned. But EPA never explains what the State's path was, or where it appears in the record. EPA similarly fails to identify any passage in the record in which the State *itself* discusses or weighs all five BART factors and elements required to be considered by the BART Guidelines.

In addition to approving an unlawful BART determination for Nelson, EPA approved a plan that fails, on its face, to comply with the statutory mandate to consider whether any source, even those not subject to BART, should be controlled

to ensure reasonable progress toward eliminating haze. Respondents argue that the absence of a reasonable progress analysis should be excused because EPA approved that part of the State's plan in 2012. But this argument conflicts with the plain text of EPA's 2012 rule, which disapproved Louisiana's long-term strategy. Under the Clean Air Act, that disapproval obligated EPA to issue a corrected reasonable progress analysis, which EPA unlawfully failed to do. In an attempt to avoid judicial review of Louisiana's failure to include a reasonable progress analysis, Respondents advance improper *post-hoc* rationalizations that are contradicted by the record.

In short, Louisiana failed to consider—let alone provide a reasoned evaluation of—all of the BART or reasonable progress factors, as mandated by the Clean Air Act. Consequently, EPA's approval of the State's plan is unlawful.

ARGUMENT

I. EPA'S APPROVAL OF THE BART DETERMINATION FOR NELSON WAS UNLAWFUL.

Respondents ignore the specific provisions of the Clean Air Act at issue here and instead rely on other, inapposite provisions of the Act to argue that EPA was required to approve the BART determination for Nelson. To the contrary, EPA must disapprove a state plan that fails to comply with any applicable requirement of the Act. Here, the State (and EPA) failed to provide a reasoned explanation

connecting the facts in the record, including EPA's finding that Entergy's analysis was thoroughly flawed, to the State's ultimate decision. In addition, there is no record evidence explaining how the State—as opposed to Entergy or EPA—considered and weighed all of the five statutory BART factors and all the elements required by the BART Guidelines.

A. The Clean Air Act Limits the State's Discretion by Requiring the State to Consider Five Statutory Factors, Pursuant to the BART Guidelines, When Determining BART for Nelson.

EPA and the Intervenor-Respondents Entergy, Cleco, and the Utility Air Regulatory Group (collectively, "the Utilities") argue, incorrectly, that the State had wide discretion in making a BART determination for Nelson and, in light of this discretion, EPA was required to approve the State's determination. EPA Br. at 33-36; Utilities Br. at 7, 13-15. But the Clean Air Act carefully limits Louisiana's discretion, and provides that "in determining best available retrofit technology the *State* (or the Administrator in determining emission limitations which reflect such technology) *shall* take into consideration" five factors. 42 U.S.C. § 7491(g)(2) (emphasis added). And for "fossil-fuel fired generating powerplant having a total generating capacity in excess of 750 megawatts," like Nelson, "the emission

limitations required under this paragraph [*i.e.*, BART] shall be determined pursuant to guidelines, promulgated by the Administrator . . . ." *Id.* § 7491(b)(2).[1]

The statutory requirements to determine BART based on an actual evaluation of the five statutory factors, pursuant to mandatory BART Guidelines, forecloses Respondents' argument that Louisiana had "wide latitude" in determining "whatever . . . control devices it desires" as BART. Utilities Br. at 13 (internal citation omitted). It is hard to imagine how Congress could have been more specific: in determining BART for power plants larger than 750 megawatts, states "shall take into consideration" five statutory factors, *id.* § 7491(g)(2), and the "emission limitations required" as BART "shall be determined pursuant to [the] guidelines," *id.* § 7491(b)(2).

Respondents ignore the plain language of the Clean Air Act's regional haze provisions and instead cite case law interpreting separate provisions of the Clean Air Act that address the states' discretion to develop plans to comply with the National Ambient Air Quality Standards ("NAAQS"). *See* EPA Br. at 32 (citing cases); Utilities Br. at 13-15.[2] But unlike the statutory provisions governing BART

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[1] EPA concedes that the Clean Air Act required the State to determine BART for Nelson pursuant to the BART Guidelines. EPA Br. at 44, n. 16; *see* 82 Fed. Reg. 60,520, 60,533 (Dec. 21, 2017).

[2] In each of the following cases that the Respondents cite, the court ruled on a challenge to a state plan for achieving the NAAQS, and not a challenge to a BART determination that must be made pursuant to the BART Guidelines. *See Union Elec. Co. v. EPA*, 427 U.S. 246 (1976) (a challenge to a plan to implement the

determinations, there is no comparable provision requiring plans for achieving the NAAQS to be developed pursuant to specific EPA guidelines, *see id.* § 7410(a). Thus, the cases cited by Respondents are distinguishable because they involve a different statutory provision in which Congress gave states far more latitude than Congress gave states when determining BART for sources like Nelson. *See, e.g.*, *Train v. Nat. Res. Def. Council, Inc.*, 421 U.S. 60, 79 (1975) ("[S]o long as the ultimate effect of a State's choice of emission limitations is compliance with the *national standards for ambient air* [*i.e.*, the NAAQS], the State is at liberty to adopt whatever mix of emission limitations it deems best suited to its particular situation.") (emphasis added).

EPA also cites cases addressing the distinct "reasonable progress" provisions of the Clean Air Act, *see* EPA Br. at 35, but these cases are also inapposite. *Texas v. EPA* concerned the long-term strategy and reasonable progress provisions of the Clean Air Act, not the separate BART provision at issue here. 829 F.3d 405, 428 (5th Cir. 2016). The Clean Air Act does not require states to conduct long-term

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sulfur dioxide NAAQS); *Luminant Generation Co. v. EPA*, 714 F.3d 841, 846 (5th Cir. 2013) (in a challenge to EPA's action on affirmative defenses in a state plan, explaining the statutory framework under which "[s]tates must periodically revise their SIPs as necessary to ensure continuing compliance with current NAAQS."); *Luminant Generation Co. v. EPA*, 675 F.3d 917 (5th Cir. 2012) (resolving a challenge to EPA's disapproval of state permit programs adopted as part of a SIP to attain the NAAQS); *BCCA Appeal Group v. EPA*, 355 F.3d 817, 821 (5th Cir. 2003) (addressing a petition for review of EPA's approval of a state plan to attain the ozone NAAQS).

strategy and reasonable progress analyses pursuant to guidelines issued by EPA, whereas the Act specifically requires BART for sources such as Nelson to be determined pursuant to the EPA Guidelines. *See* 42 U.S.C. § 7491(b)(2). Thus, any statements in *Texas v. EPA* regarding state discretion when determining reasonable progress have no bearing on Louisiana's discretion in determining BART for Nelson.

EPA also cites *Oklahoma v. EPA*, 723 F.2d 1201, 1209 (10th Cir. 2013), and *Arizona v. EPA*, 852 F.3d 1148, 1161 (9th Cir. 2017), for the proposition that states (or EPA standing in the shoes of the state) have discretion in how they weigh the BART factors. *See* EPA Br. at 35. But Environmental Petitioners are not challenging the weight Louisiana accorded to the BART factors, and thus, these cases are irrelevant. Instead, Environmental Petitioners challenge Louisiana's failure to consider, and explain how it considered, all the BART factors in the first place, and the State's failure to follow the BART Guidelines—two issues that those cases did not address.

Finally, to the extent that the statute and the BART Guidelines grant discretion to the State, Louisiana and EPA were still required to supply a "rational connection between the facts found and the choice made"—which the State and EPA failed to do. *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (internal citations omitted).

In sum, Congress required Louisiana to consider five factors and federal BART Guidelines when determining BART for Nelson. 42 U.S.C. § 7491(b)(2), (g)(2). These statutory provisions significantly limit any discretion Congress granted to states in implementing other parts of the Clean Air Act. Given that EPA cannot approve a state plan that violates "any applicable requirement" of the Clean Air Act, 42 U.S.C. § 7410(k)(3), (l), EPA was required to disapprove Louisiana's BART determination for Nelson because, as discussed below, the State failed to consider each of the five statutory factors in the manner prescribed by the BART Guidelines.

B. EPA Has Failed to Provide a Rational Connection Between Its Finding that the Analyses On Which the State Relied Were Flawed and Its Approval of the State's Decision.

Even in briefing, EPA has failed to provide the required "rational connection" between the facts found in the record and its decision approving the BART determination for Nelson. *State Farm*, 463 U.S. at 43. As explained in Environmental Petitioners' opening brief, Louisiana's proposed BART determination was based solely on an analysis submitted by Entergy (Env. Br. at 6)—which EPA found violated the BART Guidelines in multiple ways and was thoroughly flawed. 82 Fed. Reg. 32,294, 32,296, 32,298-300 (July 13, 2017) ; *see also* Index 5.18 at 29-33.

EPA found that Entergy's violations of the BART Guidelines systematically biased the analysis in favor of Entergy's BART proposal, low-sulfur coal, which is the least-effective method of reducing sulfur dioxide pollution. Specifically, EPA concluded that Entergy's violations of the BART Guidelines resulted in overestimating the cost of a scrubber by 68% and underestimating the cost of low-sulfur coal by roughly 500%. 82 Fed. Reg. at 32,298-99. Entergy also calculated that the least-effective control technology—low-sulfur coal—was cheaper on a dollar-per-ton basis than the most-effective control, a scrubber. But EPA found the opposite: low-sulfur coal would cost $2,957 per ton, more than a dry scrubber at $2,706 per ton. 82 Fed. Reg. at 32,298-99. EPA concedes that it "was aware of these errors when it approved the SIP." EPA Br. at 39.

Rather than provide a rational explanation for approving Entergy's flawed analysis, EPA invents a series of straw men to argue against. EPA mispresents Environmental Petitioners' argument, first, as contending that EPA's analysis compelled a different BART determination; second, as disagreeing with how the State weighed the BART factors; and finally, as claiming that the State had to consider BART controls in a certain order and according to a "decisional rule." EPA Br. at 33-35. None of these arguments appears in Environmental Petitioners' principal brief.

In yet another instance of EPA mischaracterizing Environmental Petitioners' brief, EPA argues against the notion that states are required "to select the most stringent control whose costs or benefits fall within the range of previous BART determinations." EPA Br. at 37. But Environmental Petitioners noted that "[i]n determining the reasonableness and approvability of a state's BART determination, as well as when issuing its own BART determinations in a federal plan, EPA has consistently focused on whether the costs and visibility benefits are within the range of prior BART decisions." Env. Br. at 38. In light of EPA's past practice, the State and EPA were obliged to make a comparison between the cost-effectiveness and visibility improvement of controls at Nelson with prior BART determinations, and to explain why controls at Nelson (such as a scrubber) were rejected in light of those prior BART determinations. *See id.* at 39 (citing *WildEarth Guardians v. EPA*, 770 F.3d 919, 941 (10th Cir. 2014). It is the State's and EPA's failure to conduct such a comparison, and EPA's "unexplained deviation from past practice" that renders the agency's action arbitrary and capricious. *Id.*

Environmental Petitioners argued there is nothng in the record showing that the State explained how it considered and weighed all the BART factors, pursuant to the BART Guidelines. *See* Env. Br. at 41-48. Likewise, Environmental Petitioners contended that the State and EPA were obligated to explain how the State's selection of low-sulfur coal as BART is consistent with EPA's corrected

analysis showing that low-sulfur coal would cost 500% more than Entergy said it would and that scrubbers would improve visibility more than Entergy calculated. *See id.* at 33-34.

EPA's response is to repeatedly claim that the State's path to reaching a decision could be discerned, yet EPA never explains what that path is. *See, e.g.*, EPA Br. at 43, 49. Like EPA, the State of Louisiana, in its *amicus* brief, baldly asserts that it considered the five BART factors, without identifying anyplace in the record reflecting such a consideration or explaining how the State considered and weighed the BART factors. *See* Amicus Br. at 7.

EPA's "naked assertion[s]" that there was a rational connection between the evidence and the State's decision are no substitute for explaining what that rational connection is. *La. Envtl. Action Network v. EPA*, 382 F.3d 575, 586–87 (5th Cir. 2004) (vacating and remanding EPA's approval of a part of Louisiana's state implementation plan because of a lack of record evidence); *see also In re Bell Petroleum Servs., Inc. v. Sequa Corp.*, 3 F.3d 889, 905 (5th Cir. 1993) ("[j]udicial review 'must be based on something more than trust and faith in EPA's experience.'" (internal citations omitted)).

EPA's unsubstantiated assertions do not satisfy the legal standard that EPA itself has said governs its review of state regional haze plans: "states are free to determine the weight and significance of each of the factors listed above, but they

must arrive at a reasoned determination that is supported by an adequate record." 77 Fed. Reg. 39,425, 39,432 (July 3, 2012); *see also North Dakota v. EPA*, 730 F.3d 750, 761, 766 (8th Cir. 2013) (a BART determination must be "reasoned" and "reasonably moored to the [CAA]'s provisions") (internal citation omitted).

EPA claims that the State's reliance on Entergy's flawed analysis should be overlooked because EPA's corrected analysis was also in the record, and "the State may, to the extent supported by the record as a whole, reach the same conclusion both before and after reviewing any particular set of information." EPA Br. at 39, 42. But the State failed to explain why its decision remained unchanged after receiving EPA's BART analysis, which thoroughly contradicted the Entergy BART analysis on which the State relied. 82 Fed. Reg. at 32,296-300 (discussing multiple flaws in Entergy's BART analysis and coming to different conclusions than Entergy). Unexplained "inconsistencies in the rulemaking record" render an agency's decision unlawful, *U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 651 (D.C. Cir. 2016), and therefore EPA was required to disapprove the State's decision.

The Utilities seek to supply a rational basis for the State's BART decision by attempting to litigate EPA's finding that Entergy's BART analyses were flawed and violated the BART Guidelines. *See* Utilities Br. at 22-27. But Entergy cannot use a Respondent-Intervenor brief, which purportedly supports EPA's findings, to challenge the agency's conclusions. If Entergy wished to litigate EPA's finding

that Entergy's BART analyses were flawed and unlawful, Entergy could have raised that issue in its affirmative case. But Entergy failed to do so, and cannot raise that affirmative challenge now. *See United Gas Pipe Line Co. v. FERC*, 824 F.2d 417, 437 (5th Cir. 1987) ("[I]ntervenors may not challenge aspects of the Commission's orders not raised in the petitions for review."); *see also Tex. Office of Pub. Util. Counsel v. FCC*, 183 F.3d 393, 438 (5th Cir. 1999).

At bottom, Entergy simply refuses to accept EPA's conclusion that Entergy failed to follow the mandatory BART Guidelines and, as a result, produced an analysis that systematically biased the outcome in favor of the least-effective pollution control: low-sulfur coal. 82 Fed. Reg. at 32,296-300. Entergy goes to such great lengths to attack EPA's findings precisely because they cannot be squared with EPA's approval of the Nelson BART determination.

Entergy's BART analyses do not and cannot support EPA's approval of the Nelson BART determination because EPA itself never provided such a rationale in the record. The Court "must disregard any *post hoc* rationalizations of [EPA]'s action and evaluate it solely on the basis of the agency's stated rationale at [the] time of its decision." *Luminant Generation Co. v. EPA*, 675 F.3d 917, 925 (5th Cir. 2012). EPA never provided this rationale because it would be fundamentally inconsistent with EPA's finding that Entergy's BART analysis violated the BART Guidelines and was thoroughly flawed, 82 Fed. Reg. at 32,296-300.

In sum, EPA's BART analysis showed that selecting low-sulfur coal as BART would mean spending more to get less: low-sulfur coal would cost more on a dollar per ton basis and reduce air pollution less than every other option. See 82 Fed. Reg. at 32,298-99; Index 5.23 at 28. EPA concluded that Entergy's analysis, which was the sole analysis supporting the State's proposed BART determination, violated the BART Guidelines and made multiple errors, 82 Fed. Reg. at 32,296-300. EPA has never explained how those findings are consistent with its approval of the State's BART determination. EPA's failure to supply a "rational connection between the facts found and the choice made" renders its decision arbitrary and capricious and otherwise unlawful. *State Farm*, 463 U.S. at 43; *see also Allentown Mack Sales & Serv., Inc. v. NLRB*, 522 U.S. 359, 374 (1998) ("Not only must an agency's decreed result be within the scope of its lawful authority, but the process by which it reaches that result must be logical and rational.").

C. No Party Has Identified Any Place in the Record Where the State Explained its Consideration of All Five BART Factors and Complied with the BART Guidelines.

As discussed, the Clean Air Act provides that "in determining best available retrofit technology the State . . . *shall* take into consideration" five listed factors. 42 U.S.C. § 7491(g)(2) (emphasis added). Moreover, because Nelson is a fossil-fuel fired power plant larger than 750 MW, the State was required to consider the five factors in accordance with the BART Guidelines issued by EPA. *See id.* §

7491(b)(2); *see also* EPA Br. at 44, n. 16 ("EPA agrees that the State was required to use the BART Guidelines in determining BART for Nelson."). The Clean Air Act obligated EPA to disapprove the State's plan if it did not comply with these applicable requirements. 42 U.S.C. § 7410(k)(3), (l).

Respondents' briefs devote many pages to the alleged primacy of states in determining BART. *See* EPA Br. at 32, 34, 49; Utilities Br. at 13-15. Yet, in attempting to explain how the State considered and weighed the five BART factors, they repeatedly cite only to the BART analyses conducted by Entergy and EPA, and fail to cite any place in the record where the State itself explained how it considered and weighed the five BART factors. EPA and Entergy cannot have it both ways: if the State had primary authority to satisfy the BART requirements, then the State—rather than Entergy or EPA—was obligated to do the work of fulfilling those requirements. But the State failed to do so.

Here, no party disputes that the only place in the record in which the State discusses its consideration of the BART factors is a single page of the State's plan, page six. *See* Index 14.1 at pdf 6. Environmental Petitioners' principal brief demonstrated that the State's plan violated the Clean Air Act's applicable requirements in four separate ways: the State failed to discuss two of the required BART factors, existing controls in use at the source and the remaining useful life of the source; and the State failed to discuss two elements required by the

Guidelines, the cost-effectiveness of pollution controls and visibility benefits of controls. *See* Env. Br. at 41-48.

EPA's primary defense is that the State "weighed the five" BART factors. EPA Br. at 33, 43. But the agency fails to cite any part of the record in which the State discussed how it weighed all five BART factors. This Court has repeatedly rejected the defense that EPA makes here, by holding that EPA's "bare conclusion" is not enough to uphold the agency's action. *Texas v. EPA*, 690 F.3d 670, 678 (5th Cir. 2012); *see also La. Envtl. Action Network*, 382 F.3d at 586–87 (vacating EPA action supported only by EPA's "naked assertion").

EPA's argument is that it is lawful for a state to simply assert that it considered mandatory statutory factors, and for EPA to echo the state's assertion, without providing any explanation in the record of how the state actually considered and weighed the required factors. If EPA's action is upheld, EPA and states could in the future simply proclaim that they had complied with applicable legal requirements, and this Court would be bound to accept those unsubstantiated assertions. Accepting EPA's argument would render judicial review of agency action meaningless—contrary to the intent of Congress in ensuring that EPA's actions under the Clean Air Act are reviewable by the courts, *see* 42 U.S.C. § 7607(b)(1), (d)(7)-(9).

In addition to relying on Louisiana's conclusory assertions that it considered the required factors, EPA points only to places in the record where Entergy or EPA considered these required elements. *See* EPA Br. at 45-48. But EPA's response underscores that there is no place in the record in which *the State* itself discussed how it considered and weighed all five BART factors and all elements required by the BART Guidelines, including the cost-effectiveness and visibility benefits of all pollution controls. EPA may not simply rubberstamp a state plan, but instead must provide a reasoned basis for concluding that the plan complies with all applicable requirements of the Act. *See Texas*, 690 F.3d at 678 (EPA's "bare conclusion" is insufficient to uphold the agency's action); *North Dakota*, 730 F.3d at 761 (a BART determination must be "reasonably moored to the CAA's provisions").

Entergy seeks to downplay the stark differences between EPA's lawful BART analysis and Entergy's unlawful analysis by claiming that "EPA's analysis diverged from Entergy's on only two of the five BART factors: the cost-effectiveness of the candidate BART controls and the visibility improvements those controls would yield." Utilities Br. at 21. But this ignores that cost and visibility are generally the two most important factors in a BART decision. *See, e.g.*, 81 Fed. Reg. 66,332, 66,391 (Sep. 27, 2016) (regarding Arkansas regional haze plan: "the cost and visibility factors were the two most important factors in our decisions"). In any event, Entergy's statements are internally inconsistent.

Here, the Utilities say that EPA's analysis diverged from Entergy's in calculating visibility improvement, but elsewhere the Utilities contradict themselves by claiming that EPA and Entergy predicted the same visibility improvement from controls. Utilities Br. at 22.[3]

In sum, EPA submitted to the State a BART analysis that conflicted in fundamental ways with Entergy's BART analysis, which EPA found to have violated the BART Guidelines and committed various errors. Particularly given the critical differences between the two BART analyses in the record, it was incumbent upon the State to explain how it considered and weighed the BART factors and elements required by the BART Guidelines. Yet instead of doing so, the State merely asserted that it considered all required elements, and EPA echoed the state's unsubstantiated assertion. If the Clean Air Act's instruction to EPA to review state plans is to have any meaning, and if judicial review of EPA actions is to be meaningful, this Court must reject EPA's argument that merely asserting that mandatory factors have been considered complies with the Act. *See Texas*, 690 F.3d at 678; *La. Envtl. Action Network*, 382 F.3d at 586–87.

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[3] The Utilities mispresent the record when they contend that EPA and Entergy calculated the "identical" visibility improvement from pollution controls. *See* Utilities Br. at 22 (citing Table 4-7 in Index 22.8). Table 4-7, which the Utilities cite, contains EPA's summary of *Entergy's* analysis, rather than EPA's own analysis. *See* Index 22.8 at 39. EPA's own analysis appears in Tables 4-8 and 4-9, and shows that EPA calculated significantly greater visibility improvement from a scrubber than Entergy had calculated. *See id.*

II. EPA'S APPROVAL OF LOUISIANA'S LONG-TERM STRATEGY WAS UNLAWFUL.

Under the Clean Air Act, each haze plan must include an approved "long-term strategy," which "must include enforceable emission limitations" necessary to ensure "reasonable progress" towards eliminating haze pollution in each affected Class I area. 42 U.S.C. § 7491(a), (b)(2); 40 C.F.R. § 51.308(d)(3). In evaluating the pollution controls necessary to make "reasonable progress," each state "shall" take into consideration four factors. 42 U.S.C. § 7491(g)(1); *see also* 40 C.F.R. § 51.308(d)(1)&(3). Where, as here, EPA has disapproved part of a state plan, the agency must issue a federal plan within two years, unless EPA approves a state plan that "corrects the deficiency." 42 U.S.C. § 7410(c)(1)(B).

Respondents concede that Louisiana's revised haze plan does not evaluate the statutory reasonable progress factors to assess whether any power plants, including Dolet Hills, should reduce emissions as part of the State's long-term strategy. Instead, they argue that, in 2012, EPA disapproved "only" a discrete portion of the State's reasonable progress analysis and long-term strategy submission, but approved the "rest." EPA Br. at 54; Utilities Br. at 32. Thus, according to Respondents, Louisiana was not required to evaluate reasonable progress controls for any power plants. Moreover, even if EPA's 2012 disapproval required an evaluation of reasonable progress controls for power plants, Respondents contend that EPA already approved Louisiana's decision to exclude

Dolet Hills from further analysis, and that approval cannot be challenged now. EPA Br. at 56; Utilities Br. at 33, 37.

Respondents argue that, in any event, Environmental Petitioners waived their reasonable progress claims by failing to challenge EPA's separate denial of a petition for administrative reconsideration. Alternatively, they argue the reasonable progress claim is moot because, if remanded, EPA would simply reassert its reasoning. Each of these arguments lacks merit and does not justify EPA's approval of a plan that fails to include the reasonable progress analysis required by the Clean Air Act.[4]

A. EPA Disapproved Louisiana's Long-Term Strategy, and the State Failed to Correct the Deficiency.

Respondents argue, incorrectly, that there is only a "single ambiguous sentence" in EPA's 2012 disapproval of Louisiana's haze plan that suggests the State must evaluate reasonable progress emission limits for EGUs. *See* EPA Br. at

[4] Louisiana suggests it corrected the deficiencies in its haze plan, in part, because the affected Class I areas—Breton Wildlife Refuge in Louisiana and Caney Creek in Arkansas—are both on the "glide path" or "uniform rate of progress" toward achieving the national visibility goal by 2064. Louisiana Br. at 2, 4. This argument is both irrelevant and an improper *post hoc* rationalization. Although states have discretion in evaluating reasonable progress, they "are required to do more than establish [reasonable progress goals] that meet or exceed the [uniform rate of progress]." 77 Fed. Reg. 11,839, 11,847 (Feb. 28, 2012); *see also* 79 Fed. Reg. 74,818, 74,834 (Dec. 16, 2014) ("the URP does not establish a 'safe harbor' for the state in setting its progress goals," or from "considering the four statutory factors" (citing 64 Fed. Reg. 35,714, 35,732 (July 1, 1999) (final Regional Haze Rule)). In any event, EPA never articulated such a justification for approving Louisiana's revised plan, so Louisiana's *post-hoc* rationale is not properly before the Court.

50, 61-62; Utilities Br. at 34. But they ignore the plain language of EPA's 2012 final rule: "In this action, the EPA grants a partial limited approval of the LA RH SIP submittal for meeting the requirements of: 51.308(d), for the core requirements for regional haze SIPs, *except for the requirements of 51.308(d)(3)*; . . ." 77 Fed. Reg. at 39,426 (emphasis added); *see also id.* at 39,435 (amending 40 C.F.R. § 52.985 to codify the same).

Section 51.308(d)(3), in turn, is captioned "Long-term strategy for regional haze," which "must include," among other things, "enforceable emissions limitations . . . to achieve the reasonable progress goals" for both in- and out-of-state Class I areas. 40 C.F.R. § 51.308(d)(3)(v)(C). And in determining those emission limits, the State "shall" consider the four statutory reasonable progress factors. 42 U.S.C. § 7491(g)(1); 40 C.F.R. § 51.308(d)(1)(i)(A). Respondents fail to explain how the 2012 disapproval means anything other than what it says: EPA disapproved Louisiana's long-term strategy, which under 40 C.F.R. § 51.308(d)(3) and the Clean Air Act itself, required Louisiana to "reconsider" the statutory reasonable factors in determining whether individual power plants should be controlled to ensure reasonable progress. 77 Fed. Reg. at 11,841.

Nonetheless, Respondents assert that EPA disapproved Louisiana's plan "only" to the extent the State relied on the now-defunct Clean Air Interstate Rule as an alternative to BART for eligible power plants. EPA Br. at 61; Utilities Br. at

32.[5] EPA contends that it "never deemed inadequate any other aspect of Louisiana's long-term strategy." EPA Br. at 54. But again, that argument conflicts with the plain language of EPA's 2012 rule.

In disapproving Louisiana's haze plan, EPA made clear that the deficiencies in the State's analysis went "beyond" the state's reliance on the Clean Air Interstate Rule as an alternative to BART. 77 Fed. Reg. at 11,840-41.[6] EPA explained that Louisiana impermissibly relied on the invalid Clean Air Interstate Rule not just to satisfy "the BART requirement," but *also* to "assess[] the need for emissions reductions from EGUs"[7] as part of its "long-term strategy sufficient to achieve the state-adopted reasonable progress goals." 77 Fed. Reg. at 11,841 (proposed disapproval, in part, because Louisiana "relied on CAIR in assessing the need for emission reductions from EGUs to ensure reasonable progress"); *see also* 76 Fed. Reg. 82,219, 82,223 (Dec. 30, 2011) (Louisiana "relied on CAIR requirements to satisfy *both* the BART requirement and the requirement for a long-

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[5] In 2012, EPA also disapproved deficient BART analyses for non-EGU sources that are not at issue in this appeal.

[6] The Clean Air Interstate Rule, or CAIR, was a pollution trading program on which EPA allowed states to rely as an alternative to making source-specific BART determinations. Louisiana relied on CAIR to satisfy both its BART *and* reasonable progress obligations under the Regional Haze Rule. Thus, when the D.C. Circuit invalidated CAIR, EPA disapproved Louisiana's haze plan because it had relied on CAIR to satisfy the BART, long-term strategy, *and* reasonable progress requirements for the State's power plants. *See* 77 Fed. Reg. 33,642, 33,653 (June 7, 2012).

[7] "EGU" stands for electric generating unit, *i.e.*, a power plant.

term strategy sufficient to achieve the state-adopted reasonable progress goals") (emphasis added).[8]

As a result of EPA's disapproval, Louisiana was obligated to "consider whether EGUs previously covered by the CAIR, *whether subject to BART or not*, should be controlled to ensure reasonable progress to meet the State's long-term strategies." 77 Fed. Reg. at 39,427 (emphasis added). That obligation stems not just from EPA's directive, *see id.*, but from the Clean Air Act and the Regional Haze Rule, which require every haze plan to include a long-term strategy that evaluates the emission limits necessary to ensure reasonable progress. *See* 42 U.S.C. § 7491(b)(2)(A)-(B); 40 C.F.R. § 51.308(d)(3).[9]

Under the Clean Air Act, EPA's 2012 disapproval of Louisiana's long-term strategy required EPA to issue a federal plan within two years, unless the agency first approved a state plan that "corrects the deficiency." 42 U.S.C. § 7410(c)(1)(B). Respondents concede that EPA has not issued a long-term strategy

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[8] *See also* 77 Fed. Reg. at 33,657 (national rule disapproving reliance on CAIR in lieu of BART: amending Louisiana's plan, 40 C.F.R. § 52.985, to read, "The requirements of section 169A of the Clean Air Act are not met because the regional haze plan submitted by Louisiana on June 13, 2008, does not include fully approvable measures for meeting the requirements of 40 CFR 51.308(d)(3)").

[9] Contrary to Respondents' repeated assertion that Environmental Petitioners "mischaracterize" the record based on a "single vague statement," EPA Br. at 61-62, the 2012 rulemaking record includes numerous staements making clear that, to correct its plan, Louisiana "must" consider reasonable progress controls for EGUs *whether subject to BART or not*. 77 Fed. Reg. at 39,427; 77 Fed. Reg. at 11,841, 11,847, 11,854; *see also* Index 1.1 at 33, 37, and 39.

or reasonable progress analysis; nor has EPA approved a state plan that actually corrects the deficiency EPA identified in 2012. Indeed, EPA and Louisiana failed to evaluate reasonable progress controls for *any* source, or revisit any aspect of the long-term strategy. Consequently, EPA's finding that Louisiana "correct[ed] the deficiencies" in its earlier haze plan, 82 Fed. Reg. 60,520, 60,540, is arbitrary, capricious, and contrary to law, and EPA has violated the statutory mandate in 42 U.S.C. § 7410(c)(1)(B) to correct the long-term strategy that it disapproved in 2012.

B. Respondents' Justifications for Not Correcting the Deficiencies EPA Identified in 2012 Are Impermissible Post-Hoc Rationalizations.

Respondents argue that even if EPA's 2012 disapproval action required Louisiana to reconsider reasonable progress controls, the State's failure to consider such controls for Dolet Hills was reasonable because, in 2012, EPA approved Louisiana's "predicate" decision "not to designate Dolet Hills as a reasonable progress source." EPA Br. at 56; Utilities Br. at 37. This argument has no basis in the record and is an impermissible *post-hoc* rationalization.

As a threshold matter, this explanation does not appear anywhere in the record and thus, cannot be used to uphold EPA's approval of the Louisiana plan. *See United States v. Johnson*, 632 F.3d 912, 928 (5th Cir. 2011) ("In making our decision, we must rely only on the 'basis articulated by the agency itself' at the time of the rulemaking.") (footnote omitted).

EPA admits that this new rationale "postdates" the agency's December 2017 decision under review, but urges the Court to rely on it anyway, EPA Br. at 51, because EPA offered that rationale in denying Environmental Petitioners' subsequent petition for administrative reconsideration—a separate agency action that is not at issue in this case. But EPA has admitted that Environmental Petitioners raised their reasonable progress arguments during the comment period, and thus the agency had an opportunity (but failed) to assert its new rationale during the rulemaking process itself.[10]

At least one court has rejected similar EPA attempts to bootstrap after-the-fact rationales, "offered for the first time in a petition for reconsideration," to uphold a final rule. *See Nat'l Ass'n of Clean Water Agencies v. EPA*, 734 F.3d 1115,1147–48 (D.C. Cir. 2013) (declining to affirm "based on a factual assertion raised for the first time in an agency's denial of a petition for reconsideration when the agency had an opportunity to raise that point at an earlier point in the rulemaking process."). This Court should do the same.

[10] EPA's denial of the Petition for Reconsideration is not in the certified record, but the agency denied the petition, in part, because the objections to the long-term strategy were "raised with reasonable specificity in the comments to EPA," and thus the conditions for mandatory reconsideration were not met. 42 U.S.C. §7607(b)(1); EPA, Letter of Petition Denial to Sierra Club Regarding Louisiana SIP at 5, https://www.regulations.gov (Docket No. EPA-R06-OAR-2016-0520; Supporting Document LA052.11).

Even if EPA's *post-hoc* rationale for excusing Dolet Hills from any reasonable progress analysis were properly before the Court (and it is not), that explanation is inconsistent with EPA's 2012 disapproval action. Indeed, Respondents fail to cite a single passage in the 2012 record where EPA claims to have actually "approved" Louisiana's purported decision to exclude Dolet Hills from any further reasonable progress analysis.

To the contrary, EPA disapproved the entirety of Louisiana's long-term strategy, *see* 77 Fed. Reg. at 39,426, 39,435, and concluded that Louisiana must reconsider "whether *EGUs* previously covered by the CAIR, whether subject to BART or not, should be controlled to ensure reasonable progress." *Id.* at 39,427 (emphasis added). EPA ties itself in knots trying to explain how the plural "EGUs," which refers to electric generating units, somehow refers to only a single power plant, Big Cajun II. *See* EPA Br. at 61 n.23. The suggestion that EPA used a plural noun, *EGUs*, to refer to only a single power plant shows how far EPA is willing to go in inventing a *post-hoc* rationale to avoid the consequences of what the agency actually said in 2012.[11]

And despite repeated assertions to the contrary, Respondents similarly fail to cite any passage where Louisiana actually "decided" that Big Cajun II was the

[11] EPA's *post hoc* rationalization is further belied by the agency's admission that only one of the three units at Big Cajun II would actually be subject to a reasonable progress analysis, as the other two units are evaluated under BART. 82 Fed. Reg. 22,936, 22,942 (May 19, 2017).

"*only* reasonable progress source[]" that may need to install additional controls as part of the State's plan. Utilities Br. at 37 (emphasis in original) (citing Index 12); *see also* EPA Br. at 50, 55, 56, 57 (citing Index 9 at 57-60). Louisiana indicated only that it relied on an underlying analytical report to "prioritize" reasonable progress sources, not to "exclude" any source, as Respondents suggest. Index 9 at 59-60.

In short, the argument that EPA in 2012 approved Louisiana's determination to exclude Dolet Hills from any further reasonable progress analysis is both an improper *post hoc* rationalization and inconsistent with the 2012 rulemaking disapproving Louisiana's long-term strategy and reasonable progress analysis.

C. Environmental Petitioners Have Not Waived Their Reasonable Progress Claim.

Respondents mistakenly argue that the Court lacks jurisdiction to review Environmental Petitioners' reasonable progress claim because it is allegedly a collateral attack on EPA's 2012 partial approval of the "rest" of the State's prior plan. EPA Br. at 54, 56-57; Utilities Br. at 29-30. But an objection is a collateral attack "only if a reasonable person would have perceived a very substantial risk" that the previous rule "meant what the [agency] now says it meant." *El Paso Elec. Co. v. FERC*, 832 F.3d 495, 509 (5th Cir. 2016).

As discussed above, *supra* Section II.A, there is nothing in 2012 rulemaking record that suggests—let alone raises a "very substantial risk"—that EPA actually

proposed or approved Louisiana's reasonable progress analysis and long-term strategy. Nor is there anything in that rulemaking that provided the public with notice of the State's purported "decision" to exclude Dolet Hills from any further reasonable progress analysis.[12] To the contrary, the 2012 rule says the opposite: "EPA grants a partial limited approval of the LA RH SIP submittal for meeting the requirements of: 51.308(d), for the core requirements for regional haze SIPs, *except for the requirements of 51.308(d)(3)*." 77 Fed. Reg. at 39,426 (emphasis added); *see also id.* at 39,435 (same). As a result of that disapproval, Louisiana was obligated, under both the Clean Air Act and the Regional Haze Rule itself, to "*reconsider* whether reductions of [pollution] from EGUs, *whether subject to BART or not*, are appropriate for ensuring reasonable progress" and to meet the State's long-term strategies. 77 Fed. Reg. at 11,841 (proposed disapproval; emphasis added); *see also* 77 Fed. Reg. at 39,427 (final disapproval).

Environmental Petitioners were entitled to trust that the agency meant what it said in 2012. *See Clean Air Council v. Pruitt*, 862 F.3d 1, 10 (D.C. Cir. 2017) (public is not required "to divine the agency's unspoken thoughts" about what a rule is intended to address); *Envt'l Integrity Project v. EPA*, 425 F.3d 992, 998 (D.C. Cir. 2005) (the public is entitled to "trust an agency's representations about

[12] EPA admits that the 2012 disapproval "does not provide extensive detail on EPA's approval specifically of Louisiana's choice of reasonable progress sources and decision not to include other non-BART EGUs such as Dolet Hills." EPA Br. 57, n.20. In fact, the record does not provide *any* detail on that purported approval.

which particular aspects of its proposal are open for consideration") (emphasis in original).

The cases cited by Respondents are distinguishable because they involve attempted challenges to standards or interpretations the agency had *actually* adopted. *See Sierra Club de Puerto Rico v. EPA*, 815 F.3d 22, 26 (D.C. Cir. 2016); *Medical Waste Inst. & Energy Recovery Council v. EPA*, 645 F.3d 420, 427 (D.C. Cir. 2011); *Cal. Dump Truck Owners Ass'n v. Nichols*, 784 F.3d 500, 510 (9th Cir. 2015). Unlike those cases, EPA never mentioned in any previous rule the regulatory interpretation the agency now advances. Accordingly, Environmental Petitioners' claim is not a collateral attack.

EPA's invocation of the "reopener" doctrine similarly misses the mark, because it assumes that EPA closed the issue of the State's long-term strategy and reasonable progress analysis by approving them in 2012. EPA Br. at 57-58. But as explained above, the 2012 rule did not approve the State's long-term strategy and reasonable progress analysis, and thus the issue was never "closed." Indeed, the issue remains open until EPA conducts a reasonable progress analysis and issues a long-term strategy, or approves a state plan that contains those elements. 42 U.S.C. § 7410(c)(1)(B).[13]

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[13] Utility Intervenors inconsistently and incorrectly assert *both* that Environmental Petitioners are barred from raising any reasonable progress claim, and that EPA, in 2017, "fairly apprised" the public that it was incorporating Louisiana's 2008

In sum, EPA did not approve the State's long-term strategy in 2012, 77 Fed. Reg. at 39,426, 39,435, and Environmental Petitioners could not have challenged actions that EPA did not take. Far from collaterally attacking EPA's prior action, the agency's 2012 rule is precisely why EPA's action here is unlawful: because EPA failed to correct the long-term strategy that it disapproved in 2012.[14]

D. EPA's Denial of the Reconsideration Petition Has No Bearing on This Case.

EPA makes the meritless argument that Environmental Petitioners waived any claims regarding Louisiana's selection of reasonable progress sources by declining to challenge EPA's denial of their petition for reconsideration. EPA Br. at 62-63. This argument is flatly inconsistent with EPA's stated reason for denying the petition. *See supra* n.10. Having determined that reconsideration was unnecessary because the reasonable progress issues "were raised with reasonable

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reasonable progress analysis into the final 2017 rule. Utilities Br. 39-40. They cannot have it both ways. The 2017 proposal does not even mention any reasonable progress analysis or long-term strategy, let alone incorporating any such "already fulfilled" obligation into Louisiana's approved plan. *Id.* In any case, Respondents' contention necessarily opens the door to the counter-argument that Louisiana has not, in fact, satisfied all of its haze obligations.

[14] The Utilities suggest that Environmental Petitioners' "broad challenge to EPA's approval of Louisiana's Long-Term Strategy" is similarly barred. Utilities Br. at 29. They argue that if Environmental Petitioners thought Louisiana was required to "redo its Long-Term Strategy," they should have argued for that in 2012. *Id.* at 28. But environmental groups did submit comments to EPA in 2012, urging the agency to disapprove Louisiana's long-term strategy and reasonable progress goals. 77 Fed. Reg. at 39,427. And EPA did just that. There was no reason for Environmental Petitioners to challenge a long-term strategy that EPA specifically disapproved.

specificity in comments to EPA" during the public comment period for the 2017 rule, EPA should not be allowed to make the opposite argument: that Environmental Petitioners are now barred from challenging Louisiana's facially deficient reasonable progress analysis and long-term strategy.[15] EPA's argument is nothing more than a desperate attempt to avoid judicial review of a claim the agency itself has already conceded was properly preserved.

EPA also argues, incorrectly, that the reasonable progress issues are moot because the only relief the Court could order is the explanation that EPA provided in its response to the reconsideration petition. EPA Br. at 51. But if this Court agrees that EPA and Louisiana failed to correct the State's deficient long-term strategy, the proper remedy is to vacate EPA's 2017 approval and remand to comply with the statutory mandate to issue a corrected long-term strategy. 42 U.S.C. § 7410(c)(1)(B). In particular, on remand, EPA would be required to conduct a reasonable progress analysis under 42 U.S.C. § 7491(g)(1) to determine whether to require pollution controls at power plants, whether subject to BART or not. Given that EPA's response to the reconsideration petition did not issue a

[15] *See supra* note 10, Reconsideration Denial at 5. Environmental Petitioners do not challenge EPA's subsequent denial of reconsideration. Instead, they challenge whether EPA's December 2017 approval of Louisiana's haze plan was lawful based on the record in existence at the time of that decision. *See Sec. and Exchange Comm'n v. Chenery Corp.*, 332 U.S. 194, 196 (1947) ("[A] reviewing court . . . must judge the propriety of [agency] action solely by the grounds invoked by the agency" when it acted).

corrected long-term strategy containing a new reasonable progress analysis, Environmental Petitioners' reasonable progress claims are not moot.[16]

CONCLUSION

For these reasons, Environmental Petitioners request that this Court vacate and remand the BART determination for sulfur dioxide for Nelson Unit 6 contained in 40 C.F.R. § 52.970. In addition, the Court should vacate and remand EPA's approval of the long-term strategy component, including reasonable progress, of the Louisiana regional haze plan.

Respectfully submitted this 13th day of November, 2018.

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[16] Even if the case is remanded only for additional explanation, EPA's suggestion of mootness is without merit. As noted, by waiting until the petition for reconsideration to even mention its new analytical justification for excusing Dolet Hills (and every other EGU in the state) from reasonable progress controls, EPA deprived Environmental Petitioners of their procedural rights under the Clean Air Act. *See Nat'l Ass'n of Clean Water Agencies*, 734 F.3d at 1147–48. Requiring EPA to engage in additional rulemaking would allow Environmental Petitioners to present additional evidence and argument rebutting EPA's *post hoc* justifications, potentially influencing the agency's decision at an earlier stage.

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CERTIFICATE OF SERVICE

I hereby certify that on November 13, 2018, the foregoing was electronically filed with the Clerk of the Court for the United States Court of Appeals for the Fifth Circuit by using the CM/ECF system, which will send notification of said filing to the attorneys of the record who have consented to electronic service.

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CERTIFICATIONS UNDER ECF FILING STANDARDS AND CERTIFICATE OF COMPLIANCE WITH WORD LIMIT

Pursuant to paragraph A(6) of this Court's ECF Filing Standards, I hereby certify that (1) required privacy redactions have been made, 5th Cir. R. 25.2.13; (2) the electronic submission is an exact copy of the paper document, 5th Cir. R.25.2.1; and (3) the document has been scanned for viruses with the most recent version of a commercial virus scanning program and is free of viruses.

I certify that this brief contains 7,950 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(f) and 5th Cir. R. 32.2 and as counted by counsel's word processing system, and thus complies with the applicable word limit established in the Order granting the briefing schedule which was entered on June 4, 2018 (ECF Doc. 00514499480).

Dated: November 13, 2018

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No. 18-60116

IN THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

SIERRA CLUB; NATIONAL PARKS CONSERVATION ASSOCIATION; ENTERGY LOUISIANA, L.L.C.,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY; ANDREW WHEELER, Acting Administrator, United States Environmental Protection Agency,

Respondents.

Petition for Review of Final Administrative Actions of the United States Environmental Protection Agency

NATIONAL PARKS CONSERVATION ASSOCIATION AND SIERRA CLUB'S RESPONSE BRIEF

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Dated: October 30, 2018

CERTIFICATE OF INTERESTED PERSONS

The undersigned counsel of record certifies that the following listed persons and entities as described in the fourth sentence of Rule 28.2.1 have an interest in the outcome of this case. These representations are made in order that the judges of this court may evaluate possible disqualification or recusal.

1. Petitioners and Respondent-Intervenors: Sierra Club and National Parks Conservation Association ("NPCA").

   Sierra Club and National Parks Conservation Association are each non-profit organizations that maintain an open membership invitation to organizations, businesses, individuals, and the public in general. Accordingly, their memberships consist of many individual members.

   Neither Sierra Club nor National Parks Conservation Association has parent companies, and no publicly-held company owns a 10% or greater interest in Sierra Club or National Parks Conservation Association.

2. Petitioner: Entergy Louisiana, LLC.

3. Respondents: United States Environmental Protection Agency; Andrew Wheeler, Acting Administrator, U.S. Environmental Protection Agency.

4. Respondent-Intervenors: Entergy Louisiana, LLC, Cleco Power LLC, Utility Air Regulatory Group.

5. Petitioner-Intervenor: Cleco Power LLC.

6. *Amicus Curiae*: Louisiana Department of Environmental Quality.

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9. Counsel for Respondents United States Environmental Protection Agency and Andrew Wheeler: Michele Walter and Sheila Baynes, U.S. Department of Justice, Environment & Natural Resources Division, Environmental Defense Section; Nora Greenglass and Daniel Schramm, EPA Office of General Counsel; Adaobi Nwankwo, EPA Office of Regional Counsel, Region 6.

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STATEMENT REGARDING ORAL ARGUMENT

Pursuant to Local Rule 28.2.3, Respondent-Intervenors National Parks Conservation Association ("NPCA") and Sierra Club respectfully request that the Court hold argument in this case. This case concerns whether Louisiana power plants that cause significant air pollution are subject to the Clean Air Act's requirement to install and operate the best available technology for reducing haze pollution. Petitioners respectfully submit that oral argument would assist the Court with the complex legal issues and the voluminous evidentiary record in this case.

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JURISDICTIONAL STATEMENT

This Court lacks jurisdiction over Entergy Louisiana, LLC and Cleco Power LLC's ("Industry Petitioners") claims in sections II(B), III(B), and III(D) of their principal brief concerning reliance on CALPUFF, use of maximum 24-hour actual emissions, and use of natural background conditions, *see* Industry Principal Br. at 27-32, 38-42, 50-51. In 2005, as required by the Clean Air Act, the U.S. Environmental Protection Agency ("EPA") issued mandatory best available retrofit technology ("BART") Guidelines, 70 Fed. Reg. 39,104 (July 6, 2005), codified at 40 C.F.R. pt. 51, App. Y, which govern the BART determination process. Under 42 U.S.C. § 7491(b)(2), the State of Louisiana ("State") was required to follow the provisions of the 2005 BART Guidelines for the Roy S. Nelson ("Nelson") and Brame Energy Center ("Brame") power plants that are the subject of Industry Petitioners' challenge. Because Industry Petitioners' claims referenced above are, in reality, an attack on the requirements of the 2005 BART Guidelines, they were required to bring those claims within 60 days of publication of the Guidelines in the Federal Register. 42 U.S.C. § 7607(b)(1). Given that Industry Petitioners brought their claims long after the 60-day deadline expired and filed in the wrong court, this Court lacks jurisdiction over the claims in sections II(B), III(B), and III(D) of Industry Petitioners' Brief, *see* Industry Principal Br. at 27-32, 38-42, 50-51.

STATEMENT OF ISSUES

1. Does this Court lack jurisdiction over Industry Petitioners' claims that are in effect challenges to the 2005 BART Guidelines, where the Clean Air Act provides that any challenges to the Guidelines must have been filed in the D.C. Circuit Court of Appeals within 60 days of publication of the Guidelines?

2. Did EPA properly approve the State's use of CALPUFF to determine whether sources are subject to the BART requirements, where nearly all other states used CALPUFF for such determinations?

3. Did EPA properly apply its policy of recommending that states continue to use CALPUFF for regional haze purposes to maintain consistency among the states in implementing the regional haze requirements?

4. Is EPA's instruction in the BART Guidelines to use 24-hour maximum actual emissions as an input in air quality modeling consistent with the Clean Air Act's mandate that certain sources install and operate BART if they "emit[] any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any" Class I area, 42 U.S.C. § 7491(b)(2)(A)?

5. Did EPA properly find that the CAMx modeling conducted by Industry Petitioners did not undermine the State's determination that Nelson and Brame are subject to the BART requirements, where Industry Petitioners' CAMx modeling violated the BART Guidelines?

STATEMENT OF THE CASE[1]

I. THE CLEAN AIR ACT'S BEST AVAILABLE RETROFIT TECHNOLOGY PROVISION

In 1977, Congress amended the Clean Air Act to add the regional haze provisions, which set as a "national goal the prevention of any future, and the remedying of any existing, impairment of visibility" in certain national parks and wilderness areas. 42 U.S.C. § 7491(a)(1). To achieve the national goal of eliminating visibility impairment (known as haze pollution), the Act requires that certain older and larger pollution sources install and operate the best available retrofit technology, or BART. *Id.* § 7491(b)(2)(A).

The Act provides that a source is subject to the BART requirements if, among other things, it "emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area." *Id.* Congress did not specify the methodology for states, or EPA, to use in determining whether a source "may reasonably be anticipated to cause or contribute to" visibility impairment and thus trigger the BART requirements. Instead, Congress instructed EPA to produce a study on "modeling techniques (or other methods) for determining the extent to which manmade air pollution may

[1] For a more complete discussion of the Clean Air Act's regional haze provisions and the history of Louisiana's regional haze plan, NPCA and Sierra Club refer the Court to the Statement of the Case in their principal brief, ECF Doc. 00514585855 at 4-21.

reasonably be anticipated to cause or contribute to such impairment." *Id.* § 7491(a)(3)(B). Congress also required EPA to promulgate regulations that would "provide guidelines to the States," taking into account EPA's recommendations regarding modeling techniques, for how to implement the regional haze provisions, including the statutorily mandated BART requirements. *Id.* § 7491(b)(1).

EPA issued such regulations in 1999 and 2005. As part of the 2005 BART Rule, EPA issued the BART Guidelines, which are codified at 40 C.F.R. part 51, Appendix Y. The BART Guidelines provide detailed instructions for carrying out each step of the process of determining whether a source is subject to BART, and, if so, determining BART emission limits. Where, as here, a state (or EPA) is evaluating "fossil-fuel fired" power plants larger than 750 megawatts, BART emission limits "shall be determined pursuant to" the BART Guidelines. 42 U.S.C. § 7491(b)(2).[2]

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[2] Industry Petitioners do not dispute that the Nelson and Brame plants each have a "a total generating capacity greater than 750 megawatts," Index 5.20 at 10, and therefore the BART determination for each plant—including whether each plant is subject to BART in the first place—"must be made pursuant to the BART Guidelines." *Id.*

Note: Citations to documents in the administrative record are in the format of "Index XX," which refers to the EPA document number listed in the left-most column of the Certified Index to the Administrative Record, ECF Doc. 00514411589.

During EPA's development of the statutorily-mandated BART Guidelines, the agency provided the public with an opportunity to comment, and then responded in detail to the same arguments that Industry Petitioners raise here. For example, EPA proposed to recommend that states use CALPUFF, an air quality model, for determining whether sources are subject to BART, and for setting BART emission limits. *See* 69 Fed. Reg. 25,184, 25,194 (May 5, 2004) ("We are proposing that a CALPUFF assessment of an individual source be used as the preferred approach for determining whether a BART-eligible source may be exempt from BART."). Some commenters objected on the grounds that CALPUFF was allegedly unreliable and overpredicted visibility impairment. 70 Fed. Reg. at 39,122.

In the final BART Guidelines, EPA responded in detail to those criticisms, and concluded that CALPUFF is the "best regulatory modeling application currently available for predicting a single source's contribution to visibility impairment and is currently the only EPA-approved model for use" in determining whether a source "cause[d] or contribute[d]" to visibility impairment in Class I areas and is therefore subject to BART. 40 C.F.R. pt. 51, App. Y § (III)(A)(3); *see also* 70 Fed. Reg. at 39,121-24. EPA further explained that CALPUFF modeling is designed to provide a conservative assessment of an individual source's potential impacts to visibility impairment. 70 Fed. Reg. at 39,126. Following the adoption

of the BART Guidelines, CALPUFF has been used in nearly every BART analysis in the country. Index 5.20 at 32.

Similarly, EPA considered during the 2005 BART Guidelines rulemaking an issue that Industry Petitioners raise here: which emissions should be used as the baseline emission rate for BART analyses. EPA proposed, and ultimately finalized, the instruction to use the maximum 24-hour actual emissions as inputs for air quality models used in BART analyses. *See* 70 Fed. Reg. at 39,120 (noting "our requirement to use the maximum 24-hour value over the 5-year period of meteorological data in the modeling, as proposed" in the 2005 BART Guidelines proposal). Here, too, some commenters took issue with EPA's proposal, claiming that it was "too stringent, unreasonable" and "inappropriate." *Id.*

Likewise, the 2005 BART Guidelines address Industry Petitioners' claims concerning the use of so-called clean or natural background conditions in determining whether a source is subject to the BART requirements. EPA proposed that "changes in visibility, expressed in deciviews, should be determined by comparing the impact from a single source to natural visibility conditions. That impact should then be compared to a threshold impact, also expressed in deciviews, to assess if a BART-eligible source should be subject to a BART review." *Id.* at 39,124; *see also id.* at 39,119.

Here, too, during the 2005 BART Guidelines rulemaking, EPA received numerous comments raising the same complaints that Industry Petitioners raise here concerning the use of natural background conditions. *See id.* at 39,124. In the preamble to the final rule, EPA explained how the use of natural background conditions is necessary to fulfill the Clean Air Act's mandate in 42 U.S.C. § 7491 to eliminate visibility impairment:

> Using existing conditions as the baseline for single source visibility impact determinations would create the following paradox: the dirtier the existing air, the less likely it would be that any control is required. . . . In other words, as a Class I area becomes more polluted, any individual source's contribution to changes in impairment becomes geometrically less. Therefore the more polluted the Class I area would become, the less control would seem to be needed from an individual source. We agree that this kind of calculation would essentially raise the "cause or contribute" applicability threshold to a level that would never allow enough emission control to significantly improve visibility. Such a reading would render the visibility provisions meaningless.

70 Fed. Reg. at 39,124.

Although the BART Guidelines recommended the use of CALPUFF, EPA set out procedures for obtaining approval to use other modeling platforms. *See* 40 C.F.R. pt. 51, App. Y § (III)(A)(3) n.8 (referencing App. W). EPA explained that any "accepted" alternative modeling protocol must include "critical" elements, such as appropriate source-specific emissions rates and must compare the impacts of a particular source against "natural visibility conditions." *Id.* § (III)(A)(3). In accordance with the BART Guidelines, EPA has approved modeling protocols for

the use of an alternative modeling platform, known as CAMx, which EPA and Industry Petitioners both used here. Index 5.20 at 7-8.[3]

II. THE CONSISTENT USE OF CALPUFF IN STATES' BART DETERMINATIONS

By December 17, 2007, states were required to submit regional haze plans containing, among other things, BART determinations. 40 C.F.R. § 51.308(b). By the time Louisiana submitted its revised haze plan in 2017, most states had submitted regional haze plans that had either been approved or had been disapproved and replaced with a federal plan issued by EPA. And for "almost every single-source BART analysis in the country," the states or EPA have used the CALPUFF model, "as recommended in the BART guidelines." Index 5.20 at 32; *see also* 80 Fed. Reg. 45,340, 45,350 (July 29, 2015) ("the overwhelming majority of BART determinations have been made using CALPUFF," as the BART Guidelines recommend). As EPA has noted, "[f]ollowing the EPA's recommendations, states have used the EPA-preferred version of CALPUFF in hundreds of BART determinations since 2005." 80 Fed. Reg. at 45,350.

[3] As discussed below, however, Industry Petitioners' CAMx modeling failed to comply with the BART Guidelines or EPA-approved modeling protocols in several respects.

III. BART DETERMINATIONS IN LOUISIANA'S HAZE PLAN

On June 13, 2008, Louisiana submitted its original haze plan, which EPA disapproved because it violated the Clean Air Act. 82 Fed. Reg. 32,294, 32,295 (July 13, 2017). Louisiana attempted to satisfy the BART requirements by relying on a separate and unrelated pollution-trading rule, the Clean Air Interstate Rule ("CAIR"), which was later invalidated by the D.C. Circuit in *North Carolina v. EPA*, 531 F.3d 896, 930 (D.C. Cir. 2008).

Following EPA's disapproval of Louisiana's attempt to satisfy the BART provisions, Louisiana submitted a revised plan in a series of submittals in 2017. 82 Fed. Reg. 60,520, 60,522 (Dec. 21, 2017). EPA approved all elements of Louisiana's revised regional haze plan. *Id.* at 60,520. In this action, Industry Petitioners challenge EPA's approval of Louisiana's determination that two power plants, Nelson and Brame, are subject to the Clean Air Act's BART requirements. As relevant here, NPCA and Sierra Club filed a separate petition for review of EPA's action on the ground that EPA unlawfully approved the State's rejection of cost-effective pollution controls for Nelson that would significantly reduce haze pollution.

Nelson is one of the largest sources of air pollution in Louisiana. 82 Fed. Reg. at 32,296. Nelson has three units with a total generating capacity of more than 1,200 megawatts and emits over 11,500 tons of sulfur dioxide ("SO_2")

pollution each year. *See id.* at 32,297-99; 82 Fed. Reg. at 60,532-33; Index 21.70 at 4-4. Brame has two units with a total generating capacity of more than 960 megawatts and emits more than 9,000 tons of SO_2 pollution each year. Index 21.31 at 1-1, 5-7.

To determine whether Nelson and Brame met the statutory standard in 42 U.S.C. § 7491(b)(2)(A) for being subject to the BART provisions, Louisiana reviewed the results of CALPUFF and CAMx air dispersion modeling conducted by both Industry Petitioners and EPA. *See generally* Index 5.5, Index 5.28, Index 5.89, Index 21.25, Index 21.50, Index 22.8. As explained below, EPA conducted its own modeling in large part because EPA identified numerous flaws in Industry Petitioners' modeling. After reviewing both Industry Petitioners' and EPA's modeling, Louisiana determined that Nelson and Brame each "cause[d] or contribute[d]" to visibility impairment in Breton National Wildlife Refuge and Caney Creek Wilderness area. *See* 42 U.S.C. § 7491(b)(2)(A). As a result, Louisiana evaluated which pollution control, and corresponding emission limits, would qualify as the best available retrofit technology for controlling each plant's SO_2 emissions.[4] *See* Index 5.20 at 8, 10.

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[4] In general, BART determinations are made separately for each pollutant, so a state (or EPA) conducts separate analyses of potential pollution controls for the two main pollutants, SO_2 and nitrogen oxide ("NO_X"), that cause haze pollution (and also for particulate matter), and sets separate BART emission limits for SO_2 and NO_X.

In addition, the State analyzed several pollution control technologies that could reduce SO_2 emissions from Nelson and Brame. The State selected the technology that is least-effective at reducing SO_2 pollution—low-sulfur coal—as the best available technology for Nelson. 82 Fed. Reg. at 32,300. The State then set an emission limit as BART that is roughly equal to the emissions rate the plant is currently meeting. *See* Index 91 at 3.

Thus, the BART determination for Nelson for SO_2 does not require Nelson to purchase and install any new pollution control devices, as Nelson is already using low-sulfur coal. Moreover, the State gave Nelson three years to come into compliance with emission limits that the source is already meeting most of the time. *See* 82 Fed. Reg. 44,753 (Sept. 26, 2017).

For Brame, Louisiana conducted a similar analysis of the technologies capable of reducing SO_2 emissions. EPA approved the State's selection of "enhanced" dry sorbent injection ("DSI") as the basis for setting BART limits for Brame. 82 Fed. Reg. at 60,527. However, Brame has already installed, and operates, DSI to satisfy a separate EPA rule, the Mercury and Air Toxics Standards

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For NO_X, Louisiana relied on a separate EPA rule, the Cross-State Air Pollution Rule ("CSAPR"), issued in 2011, in lieu of requiring source-specific BART limits for NO_X emissions from Nelson or Brame. 82 Fed. Reg. at 60,522-23. As a result, EPA's approval of the State's haze plan for NO_X emissions does not establish any additional requirements for Nelson and Brame beyond that already required by CSAPR. *See* 76 Fed. Reg. 48,208 (Aug. 8, 2011).

Rule. Index 21.31 at 1-1. Moreover, Brame is already meeting the SO_2 emission limit the State set as BART. *See* Index 92 at 4 ("Brame Unit 2 is already achieving the assumed 'enhanced DSI' level of control of 0.30 lb/MMBtu SO2 rate with the current DSI operations which are being implemented to meet the MATS hydrogen chloride limit."). Thus, just as with Nelson, the State's BART determination for SO_2 emissions from Brame does not require the installation of any new pollution controls.

SUMMARY OF ARGUMENT

Industry Petitioners are apparently dissatisfied with a Louisiana Regional Haze plan that finds that the "best available retrofit technology" is nothing more than the status quo. Although Industry Petitioners' Nelson and Brame power plants are two of the largest sources of air pollution in the State of Louisiana, and contribute significantly to poor air quality in protected Class I areas, EPA approved a plan that does not require either plant to install new pollution controls, even though the record makes clear that additional controls would be cost-effective.

Instead, the plan allows Nelson to do nothing more than continue to use the least-effective SO_2 control technology—low-sulfur coal; and the plan allows Brame to continue using a technology significantly less effective for reducing SO_2 emissions than widely-used scrubbers. Perhaps recognizing that EPA's approval of the BART determinations for Nelson and Brame is unlawful, Industry

Petitioners mount a cynical effort to prevent the establishment of any BART emission limits at all for those plants.

Setting aside Industry Petitioners' failure to demonstrate any injuries from the do-nothing plan that they challenge, Industry Petitioners' claims have no merit. To begin, this Court lacks jurisdiction to hear many of those claims, which fault EPA and the State for following practices that are required by the 2005 BART Guidelines. Thus, Industry Petitioners are actually challenging the policy choices made in the 2005 BART Guidelines. The Clean Air Act required all challenges to the BART Guidelines to have been filed in the D.C. Circuit within 60 days of publication of the Guidelines in 2005, and thus Industry Petitioners' claims are time-barred and filed in the wrong court.

The remaining claims that are properly before this Court lack merit. Industry Petitioners complain about the State relying on CALPUFF to determine whether sources are subject to BART, but they ignore that virtually all other states used CALPUFF for BART determinations, and EPA acted properly in ensuring consistency among the states. In addition, Industry Petitioners repeatedly mischaracterize EPA's statements about CALPUFF while ignoring EPA's recent affirmation of the use of CALPUFF for regional haze purposes. Moreover, the use of maximum 24-hour actual emissions in the air quality modeling for Nelson and Brame is consistent with both the BART Guidelines and the Clean Air Act.

Finally, Industry Petitioners fault EPA for disapproving air quality modeling that they submitted which violated multiple provisions of the BART Guidelines. Given that the Clean Air Act requires that the BART analyses for Nelson and Brame be conducted in strict accordance with the Guidelines, the State and EPA were not only authorized, but were required, to disregard Industry Petitioners' air quality modeling that flouted the BART Guidelines.

ARGUMENT

I. IT WAS REASONABLE FOR THE STATE OF LOUISIANA TO USE CALPUFF, AS THE BART GUIDELINES RECOMMEND AND NEARLY ALL OTHER STATES HAVE DONE.

Industry Petitioner make several misguided attacks on the State's and EPA's reliance on CALPUFF to determine that Nelson and Brame are subject to the Clean Air Act's BART requirements in 42 U.S.C. § 7491(b)(2)(A), (g) and 40 C.F.R. § 51.308(d). As a threshold matter, this Court lacks jurisdiction to hear many of these claims. The remaining claims that are properly before the Court lack merit, as explained below.

A. <u>This Court Lacks Jurisdiction Over Industry Petitioners' Challenges to the BART Guidelines.</u>

This Court lacks jurisdiction to hear certain[5] of Industry Petitioners' complaints, which are in effect challenges to the 2005 BART Guidelines that are

[5] The claims not specifically identified in this section argue that the State and/or EPA misapplied the BART Guidelines, and therefore do not question the legality

time-barred and filed in the wrong court. Specifically, in section II(B) of their principal brief, Industry Petitioners allege that CALPUFF is unreliable and over-predicts visibility impacts, Industry Principal Br. at 27-32; in section III(B), they allege that EPA's policy of using maximum 24-hour actual emissions in visibility modeling is unlawful, *id.* at 37-42; and in section III(D), they contend that the use of natural background conditions in visibility modeling is arbitrary and capricious, *id.* at 50-51. Each of these claims is a challenge to the 2005 BART Guidelines, which were issued in combination with the 2005 BART Rule. The Clean Air Act required any challenge to the 2005 BART Rule and Guidelines to have been filed long ago, in the D.C. Circuit Court of Appeals, *see* 42 U.S.C. § 7607(b)(1), and therefore are barred here.

1. Several of Industry Petitioners' claims are complaints about policy choices EPA made in the 2005 BART Guidelines.

In 2005, EPA issued the BART Rule, 70 Fed. Reg. 39,104, which revised prior regulations governing BART determinations under the regional haze program. As part of the 2005 BART Rule, EPA promulgated the BART Guidelines, which are codified at 40 C.F.R. part 51, Appendix Y. The BART Guidelines specifically instruct states to follow the practices that Industry Petitioners complain about here.

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of the BART Guidelines themselves. While those claims are properly before the Court, they fail on the merits for the reasons set forth below and in EPA's brief.

The BART Guidelines recommend the use of CALPUFF for determining whether a source causes or contributes to haze and therefore is subject to the BART requirements. 40 C.F.R. pt. 51, App. Y § (III)(A)(3) ("You can use CALPUFF or other appropriate model to predict the visibility impacts from a single source at a Class I area. CALPUFF is the best regulatory modeling application currently available for predicting a single source's contribution to visibility impairment." (footnote omitted)). In developing the 2005 BART Guidelines, some commenters made the same arguments that Industry Petitioners make here regarding the alleged unreliability of CALPUFF as an air quality model. *See* 70 Fed. Reg. at 39,122 ("Other industry groups and States argued that CALPUFF has significant limitations, especially simulating complex atmospheric chemistry, and that EPA's recommendation of CALPUFF as the preferred approach is therefore inappropriate."). EPA acknowledged the limitations of CALPUFF, but nevertheless concluded that the modeling platform was the "best modeling application available for predicting a single source's contribution to visibility impairment." *Id.* at 39,122-24. Moreover, EPA recommended in 2005 the development of appropriate protocols and measures to address the concerns Industry Petitioners raise here regarding the use of CALPUFF. *See id.* at 39,125; *see also* 40 C.F.R. pt. 51, App. Y § (IV)(D)(5).

The 2005 BART Guidelines also recommend the use of maximum 24-hour actual emissions when using computer models to determine the visibility impacts of a source, 40 C.F.R. pt. 51, App. Y § (III)(A)(3)(option 1)(2). Industry Petitioners mischaracterize the BART Guidelines as recommending the use of maximum 24-hour actual emissions only for CALPUFF, and not CAMx. *See* Industry Principal Br. at 39. The BART Guidelines explain that "[t]he emissions estimates used in the models are intended to reflect steady-state operating conditions during periods of high capacity utilization." 40 C.F.R. pt. 51, App. Y § (III)(A)(3)(option 1)(2). As a result, "[w]e recommend that States use the 24 hour average actual emission rate from the highest emitting day of the meteorological period modeled." *Id.* Industry Petitioners fail to cite any language from the BART Guidelines that restricts this recommendation to CALPUFF, and instead Industry Petitioners cite only to a report produced by their own consultant. *See* Industry Principal Br. at 39. Industry Petitioners fault EPA for adhering to this recommendation to use maximum 24-hour actual emissions. *See id.* at 37-42.

Here too, the issue that Industry Petitioners seek to raise was considered by EPA in 2005 during the rulemaking for the BART Guidelines. EPA received many comments on whether to use maximum 24-hour actual emissions, allowable emissions, or some other snapshot of emissions in BART analyses. *See* 70 Fed. Reg. at 39,128. EPA explained its final decision by stating, among other things,

that "an emission rate based on the maximum actual emissions over a 24 hour period for the most recent five years may be a more appropriate gauge of a source's potential impact as it would ensure that peak emission conditions are reflected, but would likely not overestimate a source's potential impact." *Id.* at 39,129. Moreover, EPA rejected the suggestion that Industry Petitioners make here, that average actual emissions should be used instead of maximum 24-hour actual emissions. *Id.* ("[W]e disagree that daily average actual emission rates should be used to make this assessment.").

Similarly, during the 2005 BART Guidelines rulemaking, EPA received and responded to comments making the same argument Industry Petitioners make here regarding the use of natural background conditions in BART determinations. EPA proposed that "changes in visibility, expressed in deciviews, should be determined by comparing the impact from a single source to natural visibility conditions. That impact should then be compared to a threshold impact, also expressed in deciviews, to assess if a BART-eligible source should be subject to a BART review." *Id.* at 39,124.

Several industry commenters opposed this policy. *See id.* However, EPA concluded that the only way to achieve the statutory goal of restoring all Class I areas to natural visibility conditions is to calculate the visibility impacts of a source by reference to natural visibility conditions. *See id.* (explaining that using anything

other than natural visibility conditions as the baseline for estimating a source's impacts "would render the visibility provisions meaningless, as EPA and the States would be prevented from assuring 'reasonable progress' and fulfilling the statutorily-defined goals of the visibility program").

2. *Under the Clean Air Act, this Court lacks jurisdiction to entertain challenges to policy choices EPA made in the 2005 BART Guidelines.*

Industry Petitioners' arguments are belated challenges to policy choices EPA made in the 2005 BART Guidelines rulemaking. Industry Petitioners' claims in sections II(B), III(B), and III(D), Industry Principal Br. at 27-32, 38-42, 50-51, could not possibly be as-applied challenges, because the BART Guidelines specifically recommend that states do what Louisiana did here. Specifically, the BART Guidelines recommend that states use CALPUFF for determining whether a source is subject to BART, use maximum 24-hour actual emissions as modeling inputs, and use natural background conditions. 40 C.F.R. pt. 51, App. Y § (III)(A)(3). Industry Petitioners are thus not complaining that the State or EPA failed to follow or deviated from the BART Guidelines here; instead, Industry Petitioners are bringing facial challenges to the policy choices made in 2005 in the BART Guidelines.

EPA issued the 2005 BART Guidelines to fulfill its obligation under the Clean Air Act to "provide guidelines to the States . . . on appropriate techniques

and methods for implementing" the regional haze provisions. 42 U.S.C. § 7491(b)(1); *see also* 70 Fed. Reg. at 39,108 (the Clean Air Act "clearly requires us to promulgate BART guidelines"). The 2005 BART Guidelines are nationally applicable because they apply to BART determinations made by all states, and by EPA. *See* 70 Fed. Reg. 39,104; 40 C.F.R. pt. 51, App. Y § (I)(A), (F).

This Court lacks jurisdiction to entertain any challenges to the 2005 BART Guidelines. The Clean Air Act provides that any challenge to "nationally applicable regulations . . . may be filed only in the United States Court of Appeals for the District of Columbia" within 60 days of publication of the rule in the Federal Register. 42 U.S.C. § 7607(b)(1). Industry Petitioners have violated these jurisdictional requirements by filing in this Court, rather than the D.C. Circuit, and filing more than a decade after the 60-day period for challenging the 2005 BART Guidelines rulemaking expired.

This case has similar facts to *American Road & Transportation Builders Ass'n v. EPA*, and should meet a similar fate. 705 F.3d 453 (D.C. Cir. 2013). In that case, the petitioners attempted to challenge EPA's approval of a state implementation plan ("SIP") revision that applied a Clean Air Act rule that EPA had issued in 1994 regarding nonroad engines and vehicles (so-called Section 209(e) regulations). *Id.* at 454-55. The petitioners did not claim that the state or

EPA had misapplied the 1994 regulations, but instead argued that the policies announced in the 1994 regulations were themselves unlawful. *See id.* at 456 ("ARTBA's primary objective in this Court is to obtain a fresh round of judicial review of EPA's Section 209(e) preemption regulations [issued in 1994]."). In light of the Clean Air Act's 60-day period for filing petitions for review, the Court concluded it lacked jurisdiction to hear a challenge to a SIP approval that was in reality a challenge to regulations issued in 1994:

> [I]f the mere application of a regulation in a SIP approval were sufficient to constitute an after-arising ground and trigger a new 60–day statute of limitations period, *ARTBA I's* concerns about preserving "the consequences" of failing to bring a challenge within 60 days of a regulation's promulgation would be meaningless. . . . There would be no pressure to challenge regulations within the 60–day period after their promulgation if any petitioner could simply wait to test the substance of those regulations once EPA applies them, for example, in an approval of a state SIP revision—as ARTBA has attempted to do here.

Id. at 458. Just as in *American Road & Transportation Builders Ass'n*, the Industry Petitioners here attempt to use a challenge to a SIP approval to circumvent the Clean Air Act's jurisdictional requirements for challenging the 2005 BART Guidelines.

The only way to challenge a rule after the filing deadline has expired is if a party claims that the agency exceeded its constitutional or statutory authority, or if the party sues over the denial of a petition to reconsider, amend, or repeal the rule at issue. *See In re Cao*, 619 F.3d 410, 430 (5th Cir. 2010) (en banc); *Dunn-*

McCampbell Royalty Interest, Inc. v. Nat'l Park Serv., 112 F.3d 1283, 1287-88 (5th Cir. 1997). Industry Petitioners do not attempt to bring their claims under any of those exceptions, which do not apply here.

While Industry Petitioners' claims cannot be brought in this action, Industry Petitioners have legal recourse for their claims. Under the Clean Air Act, Industry Petitioners can submit a petition for rulemaking to EPA requesting the agency to reconsider the portions of the 2005 BART Guidelines with which they disagree. And if Industry Petitioners were successful, they could then submit to EPA a petition for reconsideration of the Louisiana haze rule. *See* 42 U.S.C. § 7607(d)(7)(B) (providing for reconsideration of a rule if a petitioner can demonstrate it was impracticable to raise an issue during the public comment period).

In sum, under the Clean Air Act, this Court lacks jurisdiction over Industry Petitioners' claims in sections II(B), III(B), and III(D), Industry Principal Br. at 27-32, 38-42, 50-51, because these claims are time-barred and could only have been filed in the D.C. Circuit Court of Appeals. *See Nat'l Pork Producers Council v. EPA*, 635 F.3d 738, 754 (5th Cir. 2011) (holding that the Court lacked jurisdiction over EPA's incorporation, in a 2008 rule, of decisions the agency had made in 2003, because challenges to the 2003 rule were time-barred under the Clean Water Act); *Med. Waste Inst. & Energy Recovery Council v. EPA*, 645 F.3d 420, 426-27

(D.C. Cir. 2011) (denying as time-barred petitioners' challenge to a 2009 rule on the ground that EPA first adopted in 1997 the approach the petitioners sought to challenge); *Am. Rd. & Transp. Builders Ass'n v. EPA*, 588 F.3d 1109, 1112-16 (D.C. Cir. 2009) (rejecting petitioner's argument that EPA "reopened" a rule by making discrete amendments to the rule and dismissing petitioner's challenge as time-barred under 42 U.S.C. § 7607(b)(1)).

B. It is Critical to Use CALPUFF for BART Determinations to Ensure Consistency Across the Regional Haze Program.

To the extent that Industry Petitioners' challenge to the use of CALPUFF is not barred, it fails on the merits. Industry Petitioners ignore that in using CALPUFF to determine whether sources are subject to BART, Louisiana followed the BART Guidelines as well as the practice of nearly every other state. This approach was not only lawful and reasonable; it was necessary to ensure consistency of the haze program throughout the country.

Indeed, EPA cited the importance of maintaining consistency as one of the reasons for continuing to recommend that states use CALPUFF for BART determinations. *See* 80 Fed. Reg. at 45,350 ("[W]e consider it appropriate for states (or the EPA) to continue to use this application for the remaining assessments under the current Guideline with approved protocols. This approach assures consistency across and within states in the regional haze program."). Had the State and EPA not relied on CALPUFF in the BART process and deviated

from what other states had done, Industry Petitioners would undoubtedly have faulted the State and EPA for acting inconsistently.

Here, Louisiana is one of the last states to have a complete, approved regional haze plan containing, among other things, BART determinations. "[T]he overwhelming majority of BART determinations have been made using CALPUFF." 80 Fed. Reg. at 45,350. EPA properly recommended that states continue to use CALPUFF to ensure that BART determinations across states would be made consistently. There is no error in EPA approving Louisiana's use of CALPUFF here.

C. Industry Petitioners Misrepresent EPA's Statements Regarding the Use of CALPUFF.

Industry Petitioners make much of EPA's 2017 decision to remove CALPUFF from the list of preferred air quality models, suggesting that this decision invalidates the use of CALPUFF to determine whether Louisiana sources are subject to BART. *See* Industry Principal Br. at 9, 26 n.11, 28, 40.

As they do throughout their brief, Industry Petitioners misrepresent EPA's action. To begin, EPA's 2017 action was focused on the use of air quality models for the Prevention of Significant Deterioration ("PSD") program, a Clean Air Act permitting program different than the regional haze provisions at issue here. *See* 80 Fed. Reg. at 45,340-41, 45,349. Moreover, Industry Petitioners fail to disclose that one of EPA's main reasons for removing CALPUFF from the list of approved

air quality models—concerns over the ownership of the computer code for the model—had nothing to do with the performance or reliability of CALPUFF. *Id.* at 45,349 ("Additionally, the EPA is proposing to remove the CALPUFF modeling system as an EPA-preferred model for long-range transport due to concerns about the management and maintenance of the model code given the frequent change in ownership of the model code since promulgation in the previous version of the Guideline.").

Similarly, Industry Petitioners misleadingly suggest that EPA recommended against using CALPUFF for any purpose. To the contrary, the 2017 rule states that even for the PSD program, CALPUFF can continue to be used for screening purposes for long-range transport situations. 82 Fed. Reg. 5182, 5196 (Jan. 17, 2017) (stating that EPA is "confirming our recommendation to consider CALPUFF as a screening technique along with other Lagrangian models that may be used as part of this screening approach without alternative model approval"). Determining whether a source is subject to BART is the equivalent, for regional haze purposes, of a screening analysis.

Finally, Industry Petitioners conveniently omit EPA's statements that, regardless of whether CALPUFF is used for the Clean Air Act's PSD program, CALPUFF should continue to be used for the Act's regional haze program, particularly for determining whether a source is subject to BART:

> The proposed changes to the Guideline do not affect the EPA's recommendation in the 2005 BART Guidelines to use CALPUFF in the BART determination process. Given that the overwhelming majority of BART determinations have been made using CALPUFF, we consider it appropriate for states (or the EPA) to continue to use this application for the remaining assessments under the current Guideline with approved protocols. This approach assures consistency across and within states in the regional haze program. In addition, in many instances, the modeling of visibility impacts has already been completed even though the BART determination process is not yet done. Allowing states to continue to rely on CALPUFF avoids additional time and expense in developing a new assessment of visibility impacts for a SIP initially due in 2007.

80 Fed. Reg. at 45,350. In the final rule, EPA reiterated this position, stating that "this final action does not affect the EPA's recommendation that states use CALPUFF to determine the applicability and level of best available retrofit technology in regional haze implementation plans." 82 Fed. Reg. at 5196.

While Industry Petitioners may disagree with EPA's 2017 decision to continue using CALPUFF for regional haze purposes, Industry Petitioners were required to challenge that 2017 rule within 60 days. *See* 42 U.S.C. § 7607(b)(1). And because it was a national rule setting policy for the use of air quality models for all 50 states, Industry Petitioners were required to file any challenges to the 2017 national rule in the D.C. Circuit. *See id.* Thus, in this proceeding, Industry Petitioners cannot challenge EPA's 2017 authorization of the continued use of CALPUFF for regional haze rulemakings.

In sum, the State's use of CALPUFF to determine whether sources are subject to BART is consistent with EPA's statements in the 2017 rule in which it reaffirmed the use of CALPUFF for the regional haze program. 82 Fed. Reg. at 5196.

D. The Use of Maximum 24-Hour Actual Emissions as a Modeling Input is Consistent With the Clean Air Act.

Industry Petitioners suggest that determining whether a unit is subject to BART based on the use of maximum 24-hour actual emissions violates the statutory mandate that BART be required for each source that "emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area." 42 U.S.C. § 7491(b)(2)(A). According to Industry Petitioners, it is not reasonable to find that a source causes or contributes to haze based on what the Industry Petitioners describe as "worst-case scenario" inputs to visibility modeling software. *See* Industry Principal Br. at 38-40.

To begin, Industry Petitioners' repeated characterization of the maximum 24-hour actual emissions as a "worst-case scenario" is flat-out wrong. In fact, EPA explained at length in the 2005 BART Guidelines rulemaking that actual emissions, the rate at which a source actually emits, differ from allowable emissions, the rate at which a source is legally authorized to emit. *See* 70 Fed. Reg. at 39,129. EPA rejected the option of using allowable emissions precisely

because the agency believed that such emissions would be a worst-case scenario unrepresentative of what a source actually emits. *See id.* Moreover, Industry Petitioners conveniently ignore that Louisiana followed the BART Guidelines by calculating the maximum 24-hour actual emissions by excluding so-called startup, shutdown, and malfunction events during which emissions are actually higher at Nelson and Brame than the emissions rate that was used in the BART analyses. Index 5.20 at 15-16; 70 Fed. Reg. at 39,129 ("We do not generally recommend that emissions reflecting periods of start-up, shutdown, and malfunction be used, as such emission rates could produce higher than normal effects than would be typical of most facilities.").

Industry Petitioners' argument is not only factually inaccurate, it has no basis in the Clean Air Act. While the Act does not define when a source should "reasonably be anticipated to cause or contribute to any impairment of visibility," 42 U.S.C. § 7491(b)(2)(A), the BART Guidelines contain recommendations for making such a determination. Specifically, "[a] single source that is responsible for a 1.0 deciview[6] change or more should be considered to 'cause' visibility impairment" and "any threshold that you use for determining whether a source

[6] A "deciview" is a unit of measurement used by states and EPA for calculating visibility impairment. A deciview is a haze index derived from calculated light extinction, such that uniform changes in haziness correspond to uniform incremental changes in perception across the entire range of conditions, from pristine to highly impaired. 40 C.F.R. § 51.301.

'contributes' to visibility impairment should not be higher than 0.5 deciviews." 40 C.F.R. pt. 51, App. Y § (III)(A)(1).[7] And under the BART Guidelines, such deciview impacts are evaluated on the basis of maximum 24-hour actual emissions, rather than either the average emissions that Industry Petitioners believe should be used, or the maximum possible emissions that the source could emit.

EPA's use of maximum 24-hour actual emissions is consistent with Congress requiring the use of BART controls at certain sources that "emit[] any air pollutant which may reasonably be anticipated to cause or contribute *to any impairment of visibility* in any such area." 42 U.S.C. § 7491(b)(2)(A) (emphasis added). By using a source's maximum 24-hour actual emissions in visibility modeling, a state or EPA can determine whether a source can "reasonably be anticipated to cause or contribute to any impairment of visibility in any [Class I] area. *See id.* If the modeling results indicate that a source does not cause or contribute to visibility impairment even at its maximum actual emissions, then a state or EPA can reasonably conclude that the source does not meet the statutory threshold for being subject to the BART requirements. By contrast, if CALPUFF modeling used only average emissions, it would be impossible to determine

[7] The BART Guidelines further explain that in setting the visibility impairment threshold for determining whether a source is subject to BART, each state should "consider the number of emissions sources affecting the Class I areas at issue and the magnitude of the individual sources' impacts." 40 C.F.R. pt. 51, App. Y § (III)(A)(1).

whether a source results in "any impairment of visibility," *id.*, because the visibility impairment caused by the pollutants that a source actually emits (its maximum 24-hour actual emissions) would be ignored.

Industry Petitioners' argument is, at bottom, a disagreement with the statutory language Congress chose, and the method EPA selected for satisfying the statutory mandate. Industry Petitioners would prefer that the statute require BART controls only if a source causes or contributes to visibility impairment under normal or average emissions. But Congress did not include such language in the statute, which requires that BART controls be installed and operated at certain sources that "emit[] *any* air pollutant which may reasonably be anticipated to cause or contribute to *any* impairment of visibility in *any* such area." *Id.* (emphasis added).

Industry Petitioners' argument is analogous to a motorist who, being stopped on the highway for speeding, argues that the motorist was complying with the law because the motorist's average speed was below the speed limit. Such an argument is beside the point; it is the motorist's maximum speed that matters, because any violation of a speed limit triggers penalties. Similarly, for BART, states (or EPA) set the equivalent of a speed limit: a threshold for visibility impairment such that meeting or exceeding that threshold triggers the BART requirements. Just as with speeding, a source is deemed to meet or exceed the

visibility impairment threshold based on its maximum actual emissions in a 24-hour period—not its average emissions. This is consistent with the plain language of the statute that the BART requirements are triggered when a source causes or contributes to "any impairment of visibility." *Id.*

In sum, EPA's policy of using maximum 24-hour actual emissions to determine whether a source is subject to BART is consistent with the plain language of the statute, which requires BART controls for certain sources that cause or contribute to any visibility impairment at any Class I area. *Id.*

II. EPA PROPERLY REJECTED INDUSTRY'S CAMX MODELING, WHICH FAILED TO FOLLOW APPLICABLE GUIDELINES AND WAS DEEPLY FLAWED.

Industry Petitioners argue that EPA "unreasonably ignored" their CAMx modeling analyses, which they claim were "free of . . . technical flaws" and provided a "more reasonable assessment of Nelson's and Brame's contribution to visibility impairment" than the modeling on which Louisiana relied to conclude that those power plants are subject to BART. Industry Principal Br. at 49. They further contend that EPA's criticisms of their modeling results were "legally deficient." *Id.* at 50. Industry Petitioners are wrong.

An agency's technical findings should be upheld so long as the agency "examine[s] the relevant data and articulate[s] a satisfactory explanation for its action including a 'rational connection between the facts found and the choice

made.'" *BCCA Appeal Grp. v. EPA*, 355 F.3d 817, 824 (5th Cir. 2003) (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)) (alterations in original). Moreover, there is a "presumption of regularity to the EPA's choice of analytical methodology, so challenging parties must overcome a 'considerable burden.'" *BCCA Appeal Grp.*, 355 F.3d at 832 (quoting *Am. Petroleum Inst. v. EPA*, 787 F.2d 965, 983 (5th Cir. 1986)).

As an initial matter, Industry Petitioners' suggestion that EPA "ignored" or "fail[ed] to consider" their CAMx modeling is simply false. Industry Principal Br. at 49, 52. Indeed, the agency devoted dozens of single-spaced pages in its "Modeling Response to Comment Document,"[8] another six pages in its CAMx Modeling Technical Support Document,[9] and several more pages in the final Federal Register notice[10] to carefully reviewing Industry Petitioners' CAMx modeling, and responding in detail to each of the arguments Industry Petitioners raised.

After considering those arguments, EPA reasonably rejected Industry Petitioners' modeling because it "deviated" from the mandatory BART

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[8] *See, e.g.*, Index 5.20 at 7-13, 15-17, 20-25.

[9] Index 5.18 at 27-33.

[10] 82 Fed. Reg. at 60,525-35 (discussing CAMx modeling and responding to comments).

Guidelines[11] and the Federal Land Manager-approved CAMx "modeling protocol" in several ways. Index 5.20 at 8, 10.[12] First, contrary to Industry Petitioners' assertion that they "appropriately modeled" emissions from Nelson and Brame, Industry Principal Br. at 50, the modeling failed to "utilize emissions representative of maximum 24-hr actual emissions," as required by the BART Guidelines. Index 5.20 at 10; 40 C.F.R. pt. 51, App. Y § (III)(A)(3)(option 1)(2). Because "the goal of the subject to BART analysis [is] to assess the maximum potential impact" of a source "over a range of meteorological conditions," Index 5.20 at 16, Industry Petitioners' use of average annual emissions inappropriately serves "only . . . to assess the average visibility impact and not the impact during periods of high capacity utilization" as required in the BART Guidelines. *Id.*

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[11] Because Nelson and Brame each have a "a total generating capacity greater than 750 megawatts," any modeling analysis and BART determination "must be made pursuant to the BART Guidelines." Index 5.20 at 10; 40 C.F.R. § 51.308(e)(1)(ii)(B).

[12] Under the Clean Air Act and the Regional Haze Rule, the Federal Land Managers—*i.e.*, the National Park Service and the National Forest Service, which have authority over designated Class I national parks and wilderness areas—play a key role in developing and implementing regulations and guidelines to meet the Clean Air Act's visibility goals. *See* 42 U.S.C. § 7491(d); 40 C.F.R. §§ 51.301, 51.308(i). Together, EPA and the Federal Land Managers developed a "modeling protocol" which EPA used here and in other states "for the use of CAMx modeling for BART screening." Index 5.20 at 8, 10. Although not binding, it was designed to provide consistent guidance in applying CAMx modeling. *Id.* at 19.

Second, Industry Petitioners' modeling departed from the BART Guidelines by improperly and narrowly "focus[ing] only on the modeled visibility impacts on the 20% worst" visibility days of the year. *Id.* at 11. The purpose of the BART analysis is to "identify[] the maximum potential impact" on visibility from the particular *source* at issue. *Id.* at 15. But the 20% worst visibility days at affected Class I areas "represent days with significant [pollution] impacts" from sources in Northeast Texas or the Eastern United States. *Id.* at 11. Moreover, those are the days that "do not have meteorological conditions that would result in significant [pollution] transport from Louisiana . . . sources," like Nelson and Brame. *Id.* In other words, by limiting the analysis to only the 20% worst visibility days, which are primarily the days that the affected Class I areas are impacted by out-of-state emissions, Industry Petitioners' modeling effectively "ignores" days when meteorological conditions are "most likely to result in visibility impairment from the sources in Louisiana," including Nelson and Brame. *Id.* As such, the modeling failed to "identify[] the maximum potential impact" on visibility from either of those two specific sources. *Id.* at 15.

Finally, those errors were compounded by Industry Petitioners' failure to "calculate the deciview visibility impact based on a *natural* visibility background

approach," as required by the BART Guidelines. *Id.* at 10 (emphasis added).[13] In rejecting Industry Petitioners' modeling, EPA explained that:

> using a metric that is dependent on current degraded background visibility conditions results in a paradox that the dirtier the existing air, the smaller an individual source's visibility impact will become. In other words, as visibility conditions worsen at a Class I area, the visibility impact from a source would appear to be smaller and controls would be less likely. Therefore, to fully assess the potential visibility impacts and benefits of controls at a source, deciview impacts based on natural "clean" background conditions should be considered.

Id. at 11 (footnote omitted). Industry Petitioners' modeling failed to evaluate the impacts of Brame and Nelson against a clean background, and therefore failed to "properly assess the maximum baseline impacts" and was "inconsistent with the BART Guidelines." *Id.* at 12-13.

Industry Petitioners do not dispute EPA's finding that the use of a "dirty" background deviated from the BART Guidelines. Instead, they contend that the BART Guidelines' mandate to use "natural" or "clean" background conditions "should not apply to CAMx." Industry Principal Br. at 51. But as with Industry Petitioners' challenges to EPA's use of CALPUFF, *see supra* pages 15-23, their argument about the use of a "natural visibility" background is, in effect, a belated attack on the BART Guidelines themselves and therefore not properly before the

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[13] *See also* 40 C.F.R. pt. 51, App. Y §§ III(A)(3)(option 1)(2), (IV)(D)(5) ("Calculate the model results for each receptor as the change in deciviews compared against natural visibility conditions.").

Court. *See* 42 U.S.C. § 7607(b)(1); *Nat'l Pork Producers Council*, 635 F.3d at 754 (in a petition for review of EPA's revisions "concentrated animal feeding operations" regulations under the Clean Water Act, petitioners' challenges to the validity of plans and protocols required under a previous regulation were time-barred). Indeed, as EPA explained in the 2005 BART Guidelines, the use of a "dirty" background necessarily fails to "fully assess the potential visibility impacts" of the individual source at issue, which is the purpose of the BART analysis, because a dirty background includes emissions from all *other* sources. Index 5.20 at 11. Using only a "dirty" background, as Industry Petitioners did here, "essentially raise[s] the [BART-applicability] threshold to a level that would never allow enough emission control to significantly improve visibility." *See* 70 Fed. Reg. at 39,124 (explaining EPA's rationale for considering impacts against natural visibility conditions in BART determinations). Thus, the use of a dirty background—whether in CALPUFF or CAMx modeling—not only defeats the purpose of the BART inquiry, but it renders the Clean Air Act's visibility improvement mandate meaningless. *Id.*

Even if this issue were properly before the Court, which it is not, the Eighth Circuit has upheld EPA's decision to require the use of clean background conditions in modeling the maximum impacts of a particular source, and this Court should do so too. *See North Dakota v. EPA*, 730 F.3d 750, 766 (8th Cir. 2013)

(upholding EPA's partial rejection of North Dakota's BART modeling "[b]ecause the goal of [the Clean Air Act] is to attain natural visibility conditions in mandatory Class I Federal areas," and EPA adequately explained that the state's use of a "dirty" background to model impacts "would serve instead to maintain current degraded conditions").

Notably, EPA raised each of these criticisms with Industry Petitioners when they submitted to EPA their initial CAMx modeling analysis in 2015. Although Industry Petitioners submitted revised modeling correcting certain flaws, they refused to correct others, including their improper "estimate" of maximum emissions by using average annual emissions, which fails to reflect impacts from periods of high capacity utilization. Index 5.20 at 16. Industry Petitioners also continued to improperly rely on "relative response factors," which, like the focus on the 20% worst days, "underestimates" maximum impacts and is inconsistent with the BART Guidelines. *See id.* at 12-13, 15-16, 19-22 (examining Industry Petitioners' revised modeling and explaining why it was flawed).[14]

In sum, contrary to Industry Petitioners' arguments that EPA ignored their CAMx modeling, Industry Principal Br. at 51, the record demonstrates that EPA carefully reviewed both their initial and revised modeling submissions and

[14] In its response to comments, and in its Response Brief, EPA provides a detailed explanation for its rejection of Industry Petitioners' use of relative response factors. *See* EPA Resp. Br. at 97-101.

reasonably concluded that each of those analyses deviated from the plain requirements and purpose of the Clean Air Act and the BART Guidelines. Moreover, Industry Petitioners' modeling assumptions underestimated the maximum visibility impacts from Nelson and Brame. Because EPA's selection of appropriate modeling assumptions involves "technical matters within its area of expertise," *State of La., ex rel. Guste v. Verity*, 853 F.2d 322, 329 (5th Cir. 1988), and because the agency adequately explained its reasons for rejecting Industry Petitioners' modeling, EPA's approval of the State's determination that Nelson and Brame are subject to BART should be upheld. *See BCCA Appeal Grp.*, 355 F.3d at 832 ("[A] reviewing court must remember that the [agency] is making predictions, within its area of special expertise, at the frontiers of science." (quoting *Baltimore Gas & Elec. Co. v. NRDC*, 462 U.S. 87, 103 (1983))); *see also Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 378 (1989) ("When specialists express conflicting views, an agency must have discretion to rely on the reasonable opinions of its own qualified experts even if, as an original matter, a court might find contrary views more persuasive.").

CONCLUSION

For the foregoing reasons, NPCA and Sierra Club respectfully request that this Court deny the petition for review filed by Cleco and Entergy Louisiana, Inc.

Respectfully submitted this 30th day of October, 2018.

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Counsel for Sierra Club

CERTIFICATE OF SERVICE

I hereby certify that on October 30, 2018, the foregoing was electronically filed with the Clerk of the Court using the CM/ECF system, which will send notification of said filing to the attorneys of record who have consented to electronic service.

/s/ Shannon Fisk
Shannon Fisk

Counsel for National Parks Conservation Association and Sierra Club

CERTIFICATIONS UNDER ECF FILING STANDARDS AND CERTIFICATE OF COMPLIANCE WITH WORD LIMIT

Pursuant to paragraph A(6) of this Court's ECF Filing Standards, I hereby certify that (1) required privacy redactions have been made, 5th Cir. R. 25.2.13; (2) the electronic submission is an exact copy of the paper document, 5th Cir. R.25.2.1; and (3) the document has been scanned for viruses with the most recent version of a commercial virus scanning program and is free of viruses.

I certify that this brief contains 8,927 words, excluding the parts of the brief exempted by Fed. R. App. P. 32(f) and 5th Cir. R. 32.2 and as counted by counsel's word processing system, and thus complies with the applicable word limit established in the Order granting the briefing schedule which was entered on June 4, 2018 (ECF Doc. 00514499480).

Dated: October 30, 2018

/s/ Shannon Fisk
Shannon Fisk

Counsel for National Parks Conservation Association and Sierra Club

Message

From: Frye, Tony (Robert) [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=58C08ABDFC1B4129A10456B78E6FC2E1-FRYE, ROBER]
Sent: 5/21/2019 6:00:12 PM
To: Wright, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=11616a3db06f4eceb13ea26c7e6dc1f0-Wright, Pet]; Bennett, Tate [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1fa92542f7ca4d01973b18b2f11b9141-Bennett, El]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Ross, David P [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=119cd8b52dd14305a84863124ad6d8a6-Ross, David]
CC: Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Edwards, John (Holt) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ac9947c20aa9454d928fc430f4763735-Edwards, Jo]; Rodrick, Christian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6515dbe46dae466da53c8a3aa3be8cc2-Rodrick, Ch]; Mills, William T. [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e32589ecf50d4dc8825695a0ed2039ca-Mills, Will]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Idsal, Anne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b1beca8121fb47a08e82b6bf2247a79b-Idsal, Anne]; Hoverman, Taylor [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ba536b11dbe14abd93ea46912b93abf2-Hoverman, T]; Levine, Carolyn [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=468b48e304cf4c54a52bb7c83a54fd21-CLevin02]; Haman, Patricia [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0ebb27cd881d41b19a30a491dc3f3f57-phaman]; Kaiser, Sven-Erik [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ac78d3704ba94edbbd0da970921271ff-SKAISER]
Subject: RE: Ag Committee Hearing

Hello All – At the hearing this morning, the panel primarily discussed conservation programs at USDA and their interest in incentivizing conservation through voluntary programs rather than through mandatory efforts. Further, the conversation went at length about improving measurement techniques to better quantify environmental benefits of individual conservation methods.

Senator Klobuchar asked Governor Vilsack about the RFS, specifically SREs:

> **Klobuchar:** […] We've seen recent administrative actions related to the Renewable Fuels Standard that have greatly concerned farmers and the renewable fuels industry. Actions like the EPA's continued use of small refinery hardship waivers that are not only concerning because they are hurting our farmers, but because of every gallon of biofuels we use displaces a gallon of oil that reduces emissions … that we talk about climate change. In fact, a recent USDA study showed first generation biofuels reduced greenhouse gas emissions between 39 and 43 percent.
>
> Secretary Vilsack, do you agree that the miss use of small refinery waivers can be considered, what we'll call, demand destruction?
>
> **Vilsack:** Senator, I think there are two things that need to happen from my perspective on the biofuels side. One is year-round E15, which would certainly be helpful. But you can't undercut that decision to go to year-round E15 with waivers that basically reduce the amount of biofuel that's being produced and

these waivers … I understand the importance to small refineries, but periodically they have been given to refineries owned by Exxon and Chevron – fairly large companies – which are clearly not financially struggling. So, I think it would certainly be helpful if we saw fewer of those waivers and more year-round E15.

Let me know if you have any thoughts or questions. Have a great day.

Best,
Tony

Tony Frye
Director of Senate Affairs
Office of Congressional Affairs
Environmental Protection Agency
Cell: 202.603.3225

From: Frye, Tony (Robert)
Sent: Thursday, May 16, 2019 3:03 PM
To: Wright, Peter <wright.peter@epa.gov>; Bennett, Tate <Bennett.Tate@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>; Ross, David P <ross.davidp@epa.gov>
Cc: Lyons, Troy <lyons.troy@epa.gov>; Edwards, John (Holt) <edwards.john@epa.gov>; Rodrick, Christian <rodrick.christian@epa.gov>; Mills, William T. <mills.williamt@epa.gov>; Woods, Clint <woods.Clint@epa.gov>; Idsal, Anne <idsal.anne@epa.gov>; Hoverman, Taylor <hoverman.taylor@epa.gov>; Levine, Carolyn <Levine.Carolyn@epa.gov>; Haman, Patricia <Haman.Patricia@epa.gov>; Kaiser, Sven-Erik <Kaiser.Sven-Erik@epa.gov>
Subject: Ag Committee Hearing

Hello All – I spoke with Senate Ag Committee staff a bit ago about a hearing they noticed for next week (5.21) entitled, *Climate Change and the Agriculture Sector*. [Link] They will be announcing witnesses at some point today, but tentatively they have Dr. Jacob Mittleider and a couple of farmers for the majority and Governor Vilsack for the minority.

At this point they have not requested anything from us, but we will be tracking in case anything comes up. Let us know if you have any questions. Have a great day!

Best,
Tony

Tony Frye
Director of Senate Affairs
Office of Congressional Affairs
Environmental Protection Agency
Cell: 202.603.3225

Message

From: Burton, Tamika [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=207E0F24FD934D6D8A3E4C400A311638-BURTON, TAM]
Sent: 3/8/2019 5:30:06 PM
Subject: The Administrator's Weekly Report 03.08.2019
Attachments: Administrators weekly report 03.08.2019.pdf; Administrators Weekly Report 03.08.2019.docx

Importance: High

Good Afternoon Administrator Wheeler and Colleagues,
Please see the attached report for the Administrators Weekly Report which includes Program offices and Regional updates; for the week ending March 08, 2019.

Tamika Burton
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burton.tamika@epa.gov

Message

From: Pritchard, Eileen [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=A396601F910B4C528707D7D3BBEB197B-EPRITCH]
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To: Wheeler, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=17a1669ef5b54fba8cb457845308787e-Wheeler, An]; Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Shaw, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31ca1476a7674825a131cb2c0d6c88c8-BShaw03]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Bennett, Tate [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1fa92542f7ca4d01973b18b2f11b9141-Bennett, El]; White, Elizabeth [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f8af641a6306479c9026142ef3b02bd7-White, Eliz]; Bodine, Susan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8c2cc6086fcc44c3be6b5d32b262d983-Bodine, Sus]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Molina, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c1d68da1a4587866e1850f22a6ae5-Molina, Mic]; Darwin, Henry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ae8e9d24eeb4132b25982e358efbd9d-Darwin, Hen]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; Benevento, Douglas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=93dba0f4f0fc41c091499009a2676f89-Benevento,]
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Subject: SIGNED: Response to the Section 126(b) Petition from New York (SAN 6712.1) (CMS#-OAR-19-000-4265)

Attachments: Response to Clean Air Act Section 126(b) Petition from New York.pdf

Good Afternoon.

Today, the Administrator signed the proposed action on a petition entitled, **"Response to the Section 126(b) Petition from New York (SAN 6712.1)."**

This action proposes to deny a petition from New York state that asks the Agency to impose nitrogen oxide (NOx) emissions controls on hundreds of sources in nine states (Illinois, Indiana, Kentucky, Maryland, Michigan Ohio, Pennsylvania, Virginia, and West Virginia). The petition alleges that NOx emissions from these sources interfere with the attainment or maintenance of the 2008 and 2015 ozone national air quality standards (NAAQS) in two areas of New York State: the New York City metropolitan area and Chautauqua County in the state's western corner. The petition was filed under Section 126 of the Clean Air Act, under which a state may demonstrate to EPA that a source or group of sources in another state violate the "good neighbor" provisions of the Act (section 110(a)(2)).

Section 126 of the CAA allows EPA only 60 days to either deny the petition or, if EPA agrees with the demonstration, impose controls on the identified sources. The petition was filed on March 12, 2018. By rulemaking, EPA extended the deadline for responding to the petition by six months, to November 9, 2018.

EPA is proposing to deny the petition on several grounds. First, we do not agree that there are air quality problems in Chautauqua County that require additional emissions reductions. Second, while New York City continues to exceed the 2008 and 2015 ozone NAAQS, the petition has not demonstrated that the identified sources could implement cost-effective controls. This demonstration is required under the good neighbor provision.

Attached is the signed and dated final rule. For your convenience, please go to **p.** for the Administrator's signature.

Please contact me if you have any questions regarding this email.

Eileen Pritchard
Special Assistant: Office of the Administrator
(202) 564-6578 (d)
pritchard.eileen@epa.gov

6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OAR-2018-0170; FRL-_____]

RIN 2060-AU04

Response to Clean Air Act Section 126(b) Petition from New York

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Proposed Action on Petition.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to deny a Clean Air Act (CAA or Act) section 126(b) petition submitted by the state of New York on March 12, 2018. The petition requests that the EPA make a finding that emissions from a group of hundreds of identified sources in nine states (Illinois, Indiana, Kentucky, Maryland, Michigan, Ohio, Pennsylvania, Virginia and West Virginia) significantly contribute to nonattainment and interfere with maintenance of the 2008 and 2015 ozone national ambient air quality standards (NAAQS) in Chautauqua County and the New York Metropolitan Area (NYMA) in violation of the prohibition of CAA section 110(a)(2)(D)(i)(I), also referred to as the good neighbor provision. The EPA proposes to deny the petition because New York has not met its statutory burden to demonstrate that the group of identified sources emits or would emit in violation of the good neighbor provision for the 2008 or 2015 ozone NAAQS in Chautauqua County and the NYMA. With respect to Chautauqua County, the EPA is first proposing to deny the petition based on the conclusion that the petition has not identified, and the EPA has not independently found, relevant air quality problems with respect to either the 2008 or the 2015 ozone NAAQS, and, thus, the group of identified sources neither emits nor would emit pollution in violation of the good neighbor provision with respect to these standards. With respect to the NYMA, the EPA is

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similarly proposing to deny the petition based on the conclusion that the petition has not identified, and the EPA has not independently found, relevant air quality problems with respect to the 2008 NAAQS and, thus, the group of identified sources neither emits nor would emit pollution in violation of the good neighbor provision with respect to this standard. With respect to both NAAQS and both areas, the EPA is additionally proposing to find that material elements in the petition's assessment of whether the sources may be further controlled through implementation of cost-effective controls are insufficient and, thus, the petition does not demonstrate that the group of identified sources either emits or would emit pollution in violation of the good neighbor provision.

DATES: *Comments.* Comments must be received on or before **[INSERT DATE 60 DAYS FROM DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].**

Public hearing: The EPA will hold a public hearing on this proposal on June 11, 2019, in Washington D.C. Please refer to **ADDRESSES** for additional information on the comment period and public hearing.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2018-0170, at *http://www.regulations.gov*. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*e.g.*, on the Web, Cloud, or other

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file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *http://www2.epa.gov/dockets/commenting-epa-dockets*. Certain other material, such as copyrighted material, will not be placed on the Internet but may be viewed, with prior arrangement, at the EPA Docket Center. Publicly available docket materials are available either electronically in *www.regulations.gov* or in hard copy at the Air and Radiation Docket and Information Center, EPA/DC, EPA William Jefferson Clinton West Building, Room 3334, 1301 Constitution Avenue, NW, Washington, D.C. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744 and the telephone number for the Air and Radiation Docket and Information Center is (202) 566-1742. For additional information about the EPA's public docket, visit the EPA Docket Center homepage at: *http://www.epa.gov/epahome/dockets.htm*.

Public hearing: The June 11, 2019, public hearing will be held at the EPA, William Jefferson Clinton East Building, Room 1117A, 1201 Constitution Avenue, NW, Washington, DC 20004. The public hearing will convene at 9:00 a.m. and end at 6:00 p.m. Eastern Time (ET) or 1 hour after the last registered speaker has spoken. The EPA will make every effort to accommodate all individuals interested in providing oral testimony. A lunch break is scheduled from 12:00 p.m. until 1:00 p.m. Please note that this hearing will be held at a U.S. government facility. Individuals planning to attend the hearing should be prepared to show valid picture identification to the security staff to gain access to the meeting room. The REAL ID Act, passed by Congress in 2005, established new requirements for entering federal facilities. These requirements took effect July 21, 2014. If your driver's license is issued by American Samoa, you must present an

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additional form of identification to enter the federal building where the public hearing will be held. Acceptable alternative forms of identification include: federal employee badges, passports, enhanced driver's licenses and military identification cards. For additional information for the status of your state regarding REAL ID, go to *http://www.dhs.gov/real-id-enforcement-brief.* In addition, you will need to obtain a property pass for any personal belongings you bring with you. Upon leaving the building, you will be required to return this property pass to the security desk. No large signs will be allowed in the building, and demonstrations will not be allowed on federal property for security reasons.

If you would like to present oral testimony at the hearing, please notify Ms. Pamela Long, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Air Quality Policy Division, (C504-01), Research Triangle Park, NC 27711, telephone (919) 541-0641, fax number (919) 541-5509, email address *long.pam@epa.gov*, no later than 4:00 p.m. ET on June 7, 2011. Ms. Long will arrange a general time slot for you to speak. The EPA will make every effort to follow the schedule as closely as possible on the day of the hearing.

Oral testimony will be limited to 5 minutes for each commenter. The EPA encourages commenters to provide the EPA with a copy of their oral testimony electronically (via email) or in hard copy form. Commenters should notify Ms. Long if they need specific translation services for non-English speaking commenters.

The hearing schedule, including the list of speakers, will be posted on the EPA's Web at site *https://www.epa.gov/ozone-pollution/ozone-national-ambient-air-quality-standards-naaqs-section-126-petitions* prior to the hearing. Verbatim transcripts of the hearing and written statements will be included in the docket for the action.

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The public hearing will provide interested parties the opportunity to present data, views or arguments concerning the EPA's proposed response to the petition from New York. The EPA may ask clarifying questions during the oral presentations but will not respond to the presentations at that time. Written statements and supporting information that are submitted during the comment period will be considered with the same weight as any oral comments and supporting information presented at the public hearing. Written comments must be postmarked by the last day of the comment period.

FOR FURTHER INFORMATION CONTACT: For additional information regarding this proposed action, please contact: Beth W. Palma, U.S. EPA, Office of Air Quality Planning and Standards, Air Quality Policy Division, Mail Code C539-04, Research Triangle Park, NC 27711, telephone (919) 541–5432, email at *palma.elizabeth@epa.gov*. For information on the public hearing or to register to speak at the hearing, contact Ms. Pamela Long, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Air Quality Planning Division, Mail Code C504-01, Research Triangle Park, NC 27711, telephone (919) 541-0641, fax number (919) 541-5509, email at *long.pam@epa.gov* (preferred method for registering).

SUPPLEMENTARY INFORMATION:

The information in this document is organized as follows:

I. General Information
II. Executive Summary of the EPA's Proposed Decision on the CAA Section 126(b) Petition from New York
III. Background and Legal Authority
   A. Ground-level Ozone and the Interstate Transport of Ozone
   B. CAA Sections 110 and 126
   C. The EPA's Historical Approach to Addressing Interstate Transport of Ozone under the Good Neighbor Provision
   D. The CAA Section 126(b) Petition from New York
IV. The EPA's Proposed Decision on the CAA Section 126(b) Petition from New York

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A. The EPA's Approach for Granting or Denying CAA Section 126(b) Petitions Regarding the 2008 and 2015 8-hour Ozone NAAQS
B. The EPA's Evaluation of Whether the Petition is Sufficient to Support a CAA Section 126(b) Finding
V. Conclusion
VI. Judicial Review
VII. Statutory Authority

I. General Information

Throughout this document wherever "we," "us," "our" or "Agency" is used, we mean the United States (U.S.) EPA.

Where can I get a copy of this document and other related information?

The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2018-0295 (available at *http://www.regulations.gov*). The EPA has made available information related to the proposed action and the public hearing at Web site: *https://www.epa.gov/ozone-pollution/ozone-national-ambient-air-quality-standards-naaqs-section-126-petitions*.

II. Executive Summary of the EPA's Proposed Decision on the CAA Section 126(b) Petition from New York

In March 2018, the state of New York submitted a petition requesting that the EPA make a finding pursuant to CAA section 126(b) that emissions from over 350 facilities in nine states significantly contribute to nonattainment and/or interfere with maintenance of the 2008 and 2015 ozone NAAQS in violation of CAA section 110(a)(2)(D)(i)(I), otherwise known as the good neighbor provision. For the reasons explained in this notice, the EPA is proposing to deny the petition because New York has not met its statutory burden to demonstrate that the group of sources identified in the petition emits or would emit in violation of the good neighbor provision for the 2008 or 2015 ozone NAAQS in either Chautauqua County or the NYMA.

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The EPA is evaluating the petition consistent with the same four-step interstate transport framework that the EPA has used in previous regulatory actions addressing regional ozone transport problems. The EPA is, therefore, using this framework to evaluate whether the petition meets the standard to demonstrate under CAA section 126(b) that the sources emit or would emit in violation of the good neighbor provision. The EPA's proposed denial rests on both the first and third steps of this framework. With respect to the 2008 and 2015 ozone NAAQS in Chautauqua County, the EPA is proposing to deny the petition at step 1 of the framework (*i.e.*, whether there will be a downwind air quality problem relative to the relevant NAAQS) based on the conclusion that the petition has not identified, and the EPA has not independently found, relevant air quality problems. With respect to the 2008 ozone NAAQS in the NYMA, the EPA is similarly proposing to deny the petition based on the conclusion that the petition has not identified, and the EPA has not independently found, relevant air quality problems. Thus, the EPA is proposing to find as to these areas and NAAQS that the petition has not met its burden at step 1 of the four-step interstate transport framework. Thus, the group of identified sources neither emits nor would emit pollution in violation of the good neighbor provision. With respect to the 2015 ozone NAAQS in the NYMA, the EPA has identified a relevant downwind air quality problem, and, thus, the EPA is not proposing a denial at step 1 as to this portion of the petition.

The EPA is additionally proposing to deny the petition as to all areas and NAAQS at step 3 of the framework (*i.e.*, whether, considering cost and air-quality factors, emissions from sources in the named state(s) will significantly contribute to nonattainment or interfere with maintenance of a NAAQS at a receptor in another state). The EPA is proposing to find that material elements in the petition's assessment of whether the sources may be further controlled

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through implementation of cost-effective controls are insufficient and, thus, New York has not met its step 3 burden to demonstrate that the named sources currently emit or would emit in violation of the good neighbor provision with respect to the relevant ozone NAAQS. As to the claims in the petition regarding Chautauqua County (for both NAAQS) and the NYMA (for the 2008 ozone NAAQS), this provides an independent basis for denial in addition to the proposed denial under step 3. The EPA is taking comment on whether to also deny the petition because the petitioner has not provided justification for the proposition that identification of such a large, undifferentiated number of sources located in numerous upwind states constitutes a "group of stationary sources" within the context of CAA section 126(b).

Section III of this notice provides background information regarding the EPA's approach to addressing the interstate transport of ozone under CAA sections 110(a)(2)(D)(i)(I) and 126(b) and provides a summary of the relevant issues raised in New York's CAA section 126(b) petition. Section IV of this notice details the EPA's proposed action to deny the petition, including an explanation of the EPA's approach for granting or denying CAA section 126(b) petitions regarding the 2008 and 2015 8-hour ozone NAAQS and the EPA's evaluation of the sufficiency of New York's petition, identifying technical insufficiencies in the petition and explaining how the EPA's own analysis informs its evaluation of the claims in the petition.

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III. Background and Legal Authority

A. Ground-level Ozone and the Interstate Transport of Ozone

On March 12, 2008, the EPA promulgated a revision to the ground-level ozone NAAQS, lowering both the primary and secondary standards to 75 parts per billion (ppb).[1] On October 1, 2015, the EPA further revised the ground-level ozone NAAQS to 70 ppb.[2]

In this proposal, consistent with previous rulemakings described in Section III.C.2, the EPA relies on analyses that reflect the regional nature of transported ground-level ozone pollution. Ground-level ozone is not emitted directly into the air but is a secondary air pollutant created by chemical reactions between nitrogen oxides (NO_X), carbon monoxide (CO), methane (CH_4), and non-methane volatile organic compounds (VOCs) in the presence of sunlight. Emissions from mobile sources, electric generating units (EGUs), industrial facilities, gasoline vapors, and chemical solvents are some of the major anthropogenic sources of ozone precursors. The potential for ground-level ozone formation increases during periods with warmer temperatures and stagnant air masses. Therefore, ozone levels are generally higher during the

[1] *See* National Ambient Air Quality Standards for Ozone, Final Rule, 73 FR 16436 (March 27, 2008).
[2] *See* National Ambient Air Quality Standards for Ozone, Final Rule, 80 FR 65292 (October 26, 2015).

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summer months.[3,4] Ground-level ozone concentrations and temperature are highly correlated in the eastern U.S., with observed ozone increases of 2-3 ppb per degree Celsius reported.[5]

Precursor emissions can be transported downwind directly or, after transformation in the atmosphere, as ozone. Studies have established that ozone formation, atmospheric residence, and transport can occur on a regional scale (*i.e.*, across hundreds of miles) over much of the eastern U.S. Thus, in any given location, ozone pollution levels are affected by a combination of local emissions and emissions from upwind sources. Numerous observational studies have demonstrated the transport of ozone and its precursors and the impact of upwind emissions on high concentrations of ozone pollution.[6]

The EPA concluded in several previous rulemakings (summarized in Section III.C.2) that interstate ozone transport can be an important component of peak ozone concentrations during the summer ozone season and that NO_X control strategies are effective for reducing regional-scale ozone transport. Model assessments have looked at impacts on peak ozone concentrations after potential emissions reduction scenarios for NO_X and VOCs for NO_X-limited and VOC-limited areas. For example, Jiang and Fast concluded that NO_X emissions reduction strategies are

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[3] Rasmussen, D.J. et al. (2012). Surface ozone-temperature relationships in the eastern US: A monthly climatology for evaluating chemistry-climate models. Atmospheric Environment 47: 142-153.

[4] High ozone concentrations have also been observed in cold months, where a few areas in the western U.S. have experienced high levels of local VOC and NO_X emissions that have formed ozone when snow is on the ground and temperatures are near or below freezing.

[5] Bloomer, B.J., J. W. Stehr, C.A. Piety, R. J. Salawitch, and R. R. Dickerson (2009). Observed relationships of ozone air pollution with temperature and emissions, Geophys. Res. Lett., 36, L09803.

[6] For example, Bergin, M.S. et al. (2007). Regional air quality: local and interstate impacts of NO_X and SO_2 emissions on ozone and fine particulate matter in the eastern United States. Environmental Sci & Tech. 41: 4677-4689.

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effective in lowering ozone mixing ratios in urban areas and Liao et al. showed that NO_X reductions result in lower peak ozone concentrations in non-attainment areas in the Mid-Atlantic.[7,8]

Studies have found that NO_X emissions reductions can be effective in reducing ozone pollution as quantified by the form of the 2008 ozone standard (8-hour peak concentrations). Specifically, studies have found that NO_X emissions reductions from EGUs, mobile sources, and other source categories can be effective in reducing the upper-end of the cumulative ozone distribution in the summer on a regional scale.[9] Analysis of air quality monitoring data trends shows reductions in summertime ozone concurrent with implementation of NO_X reduction programs.[10] Gilliland et al. examined the NO_X State Implementation Plan (SIP) Call,[11] discussed in more detail in Section III.C.2, and presented reductions in observed versus modeled ozone concentrations in the eastern U.S. downwind from major NO_X sources.[12] The results showed significant reductions in ozone concentrations (10-25 percent) from observed measurements

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[7] Jiang, G.; Fast, J.D. (2004). Modeling the effects of VOC and NO_X emissions sources on ozone formation in Houston during the TexAQS 2000 field campaign. Atmospheric Environment 38: 5071-5085.
[8] Liao, K. et al. (2014) Impacts of interstate transport of pollutants on high ozone events over the Mid-Atlantic United States. Atmospheric Environment 84: 100–112.
[9] Hidy, G.M. and Blanchard C.L. (2015). Precursor reductions and ground-level ozone in the Continental United States. J. of Air & Waste Management Ass'n 65, 10.
[10] Simon, H. et al. (2015). Ozone trends across the United States over a period of decreasing NO_X and VOC emissions. Environmental Science & Technology 49, 186-195.
[11] *See* Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone (NOx SIP Call). 63 FR 57356 (October 27, 1998).
[12] Gilliland, A.B. et al. (2008). Dynamic evaluation of regional air quality models: Assessing changes in O_3 stemming from changes in emissions and meteorology. Atmospheric Environment 42: 5110-5123.

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(CASTNET and AQS)[13] between 2002 and 2005, linking reductions in EGU NO_X emissions from upwind states with ozone reductions downwind of the major source areas.[14] Additionally, Gégo et al. showed that ground-level ozone concentrations were significantly reduced after implementation of the NO_X SIP Call.[15] Thus, these studies support the EPA's continued focus on regional and seasonal NOx control strategies to address regional interstate ozone pollution transport.

B. CAA Sections 110 and 126

The statutory authority for this action is provided by CAA sections 126 and 110(a)(2)(D)(i). Section 126(b) of the CAA provides, among other things, that any state or political subdivision may petition the Administrator of the EPA to find that any major source or group of stationary sources in an upwind state emits or would emit any air pollutant in violation of the prohibition of CAA section 110(a)(2)(D)(i), referred to as the good neighbor provision of the Act.[16] Petitions submitted pursuant to this section are commonly referred to as CAA section 126(b) petitions. Similarly, findings by the Administrator, pursuant to this section, that a source or group of sources emits air pollutants in violation of the CAA section 110(a)(2)(D)(i) prohibition are commonly referred to as CAA section 126(b) findings.

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[13] CASTNET is the EPA's Clean Air Status and Trends Network. AQS is the EPA's Air Quality System.

[14] Hou, Strickland & Liao (2015). Contributions of regional air pollutant emissions to ozone and fine particulate matter-related mortalities in eastern U.S. urban areas. Environmental Research 137: 475-484.

[15] Gégo et al. (2007). Observation-based assessment of the impact of nitrogen oxides emission reductions on O_3 air quality over the eastern United States. J. of Applied Meteorology and Climatology 46: 994-1008.

[16] The text of CAA section 126 as codified in the U.S. Code cross-references section 110(a)(2)(D)(ii) instead of section 110(a)(2)(D)(i). The courts have confirmed that this is a scrivener's error and the correct cross-reference is to CAA section 110(a)(2)(D)(i). *See Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1040–44 (D.C. Cir. 2001).

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CAA section 126(c) explains the effect of a CAA section 126(b) finding and establishes the conditions under which continued operation of a source subject to such a finding may be permitted. Specifically, CAA section 126(c) provides that it is a violation of section 126 of the Act and of the applicable SIP: (1) for any major proposed new or modified source subject to a CAA section 126(b) finding to be constructed or operate in violation of the prohibition of CAA section 110(a)(2)(D)(i) or (2) for any major existing source for which such a finding has been made to stay in operation more than 3 months after the date of the finding. The statute, however, also gives the Administrator discretion to permit the continued operation of a source beyond 3 months if the source complies with emissions limitations and compliance schedules provided by the EPA to bring about compliance with the requirements contained in CAA sections 110(a)(2)(D)(i) and 126 as expeditiously as practicable, but in any event no later than 3 years from the date of the finding.

Section 110(a)(2)(D)(i) of the CAA requires states to prohibit certain emissions from in-state sources if such emissions impact the air quality in downwind states. Specifically, CAA sections 110(a)(1) and 110(a)(2)(D)(i)(I) require all states, within 3 years of promulgation of a new or revised NAAQS, to submit SIPs that contain adequate provisions prohibiting any source or other type of emissions activity within the state from emitting any air pollutant in amounts which will contribute significantly to nonattainment in, or interfere with maintenance by, any other state with respect to that NAAQS. As described further in Section III.C.2, the EPA has developed several regional rulemakings to address the requirements of CAA section 110(a)(2)(D)(i)(I) for the various ozone NAAQS. The EPA's most recent rulemaking, Determination Regarding Good Neighbor Obligations for the 2008 Ozone National Ambient Air Quality Standard (the Determination Rule), finalized a determination that the existing Cross-

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State Air Pollution Rule Update for the 2008 Ozone NAAQS (CSAPR Update)[17] fully addresses certain states' interstate transport obligations under CAA section 110(a)(2)(D)(i)(I) for the 2008 ozone NAAQS. 83 FR 65878 (December 21, 2018).

Section 110(a)(2)(D)(ii) of the CAA further requires SIPs to contain adequate provisions insuring compliance with the applicable requirements of, *inter alia*, CAA section 126. Thus, where the EPA has made a finding pursuant to CAA section 126(b), this provision requires states to revise their SIPs to adopt any emissions limitations and compliance schedules provided by the EPA under CAA section 126(c).

C. The EPA's Historical Approach to Addressing Interstate Transport of Ozone under the Good Neighbor Provision

Given that formation, atmospheric residence, and transport of ozone can occur on a regional scale (*i.e.*, across hundreds of miles) and that many separate areas across the eastern U.S. have struggled to attain and maintain the NAAQS, the states and the EPA have historically addressed the interstate transport of ozone pursuant to the good neighbor provision by promulgating rulemakings that employ regional trading programs to reduce NO_X emissions. Each of these rulemakings followed a similar four-step interstate transport framework to evaluate the extent of the ozone transport problem (*i.e.*, the breadth of downwind ozone problems and the contributions from upwind states) and, ultimately, to find that downwind states' problems attaining and maintaining the ozone NAAQS result from an interconnected system of transported

[17] *See* Cross-State Air Pollution Rule Update for the 2008 Ozone National Ambient Air Quality Standards, Final Rule, 81 FR 74504 (October 26, 2016).

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pollution emitted by multiple upwind sources located in different upwind states combined with downwind (*i.e.*, locally generated) ozone.

1. Description of the Four-Step Interstate Transport Framework

Through the development and implementation of several previous rulemakings,[18] the EPA, working in partnership with states, established the following four-step interstate transport framework to address the requirements of the good neighbor provision for regional pollutants such as ozone and fine particulate matter ($PM_{2.5}$):

(1) Identify downwind receptors that are expected to have problems attaining or maintaining the NAAQS. The EPA historically identified downwind areas with air quality problems, or receptors, using air quality modeling projections for a future analytic year and, where appropriate, considering monitored air quality data.

(2) Determine which upwind states are linked to these identified downwind air quality problems and thus warrant further analysis to determine whether their emissions violate the good neighbor provision. In the EPA's most recent transport rulemakings for the 1997 and 2008 ozone NAAQS, as well as the 1997 and 2006 $PM_{2.5}$ NAAQS, the Agency identified such upwind states to be those modeled to contribute at or above a threshold relative to the applicable NAAQS.

(3) For states linked to downwind air quality problems, identify upwind emissions (if any) on a statewide basis that will significantly contribute to nonattainment or interfere with maintenance of a standard at a receptor in another state. In the EPA's prior rulemakings for

[18] *See* Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone (also known as the NO_X SIP Call), 63 FR 57356 (October 27, 1998); Clean Air Interstate Rule (CAIR) Final Rule, 70 FR 25162 (May 12, 2005); CSAPR Final Rule, 76 FR 48208 (August 8, 2011); CSAPR Update Final Rule, 81 FR 74504 (October 26, 2016); Determination Rule, 83 FR 65878 (December 21, 2018).

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ozone and $PM_{2.5}$, the Agency identified and apportioned emissions reduction responsibility among multiple upwind states linked to downwind air quality problems by identifying a uniform level of control stringency based on cost and air quality factors evaluated in a multi-factor test.

(4) For upwind states that are found to have emissions that will significantly contribute to nonattainment or interfere with maintenance of the NAAQS downwind, implement the necessary emissions reductions within the state. When the EPA has promulgated federal implementation plans (FIPs) addressing the good neighbor provision for ozone and $PM_{2.5}$ NAAQS in prior transport rulemakings, the EPA has typically required affected sources in upwind states to participate in allowance trading programs to achieve the necessary emissions reductions.[19] In addition, the EPA has also offered states the opportunity to participate in comparable EPA-operated allowance trading programs to achieve the necessary emissions reductions through SIPs.

Using the four-step framework to evaluate a particular interstate transport problem allows the EPA to determine whether upwind sources are actually linked to a downwind air quality problem, whether and which sources can be cost-effectively controlled to address that downwind air quality problem, what level of emissions should be eliminated to address the downwind air quality problem, and the means of implementing corresponding emissions limits (*i.e.*, source-specific rates, or statewide emissions budgets in a limited regional allowance trading program). The outcome of this assessment varies based on the scope of the air quality problem, the

[19] While the EPA has chosen to implement emissions reductions through allowance trading programs for states found to have a downwind impact, upwind states can choose to submit a SIP that implements such reductions through other enforceable mechanisms that meet the requirements of the good neighbor provision, such as the enforceable mechanisms that the petitioner apparently favors and argues for in its petition.

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availability and cost of controls at sources in upwind states, and the estimated impact of upwind emissions reductions on downwind ozone concentrations.

2. Prior Regional Rulemakings Under the Good Neighbor Provision

The EPA's first regional interstate transport rulemaking, the NO_X SIP Call, addressed the 1979 ozone NAAQS. 63 FR 57356 (October 27, 1998).[20] The NO_X SIP Call was the result of the analytic work and recommendations of the Ozone Transport Assessment Group, which was organized and led by states in consultation with the EPA and other stakeholders. The EPA used this collaboratively-developed analysis to conclude in the NO_X SIP Call that "[t]he fact that virtually every nonattainment problem is caused by numerous sources over a wide geographic area is a factor suggesting that the solution to the problem is the implementation over a wide area of controls on many sources, each of which may have a small or unmeasurable ambient impact by itself." 63 FR 57356, 57377 (October 27, 1998). The NO_X SIP Call promulgated statewide emissions budgets and required upwind states to adopt SIPs that would decrease their NO_X emissions to meet these budgets, thereby prohibiting the emissions that significantly contribute to nonattainment or interfere with maintenance of the ozone NAAQS in downwind states. The EPA also promulgated a model rule for a regional allowance trading program called the NO_X Budget Trading Program that states could adopt in their SIPs as a mechanism to achieve some or all required emissions reductions. All jurisdictions covered by the NO_X SIP Call ultimately chose to adopt the NO_X Budget Trading Program into their SIPs. The NO_X SIP Call was ultimately

[20] As originally promulgated, the NO_X SIP Call also addressed good neighbor obligations under the 1997 8-hour ozone NAAQS, but the EPA subsequently stayed the rule's provisions with respect to that standard. 40 CFR 51.121(q). The EPA recently finalized an action rescinding the 1997 ozone NAAQS as a basis for the NO_X SIP Call. 84 FR 8422 (March 8, 2019).

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upheld by the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) in all pertinent respects. *See Michigan v. EPA*, 213 F.3d 663 (2000).

In coordination with the NO_X SIP Call rulemaking under CAA section 110(a)(2)(D)(i)(I), the EPA also addressed several pending CAA section 126(b) petitions submitted by eight northeastern states regarding the same air quality issues addressed by the NO_X SIP Call, specifically interstate ozone transport for the 1979 ozone NAAQS. These CAA section 126(b) petitions asked the EPA to find that ozone emissions from numerous sources located in 30 states and the District of Columbia had adverse air quality impacts on the petitioning downwind states. Half of the petitioning states (*i.e.*, Connecticut, Maine, New York, and Pennsylvania) requested an allowance trading program to reduce NO_X emissions and remedy regional interstate ozone transport. 63 FR 56297 (October 21, 1998). Based on analysis conducted for the NO_X SIP Call regarding upwind state impacts on downwind air quality, the EPA, in May 1999, made technical determinations regarding the claims in the petitions, but did not at that time make the CAA section 126(b) findings requested by the petitions. 64 FR 28250 (May 25, 1999). In making these technical determinations, the EPA concluded that the NO_X SIP Call would fully address and remediate the claims raised in these petitions and that the EPA would, therefore, not need to take separate action to remedy any potential violations of the CAA section 110(a)(2)(D)(i) prohibition. 64 FR 28252. However, subsequent litigation over the NO_X SIP Call led the EPA to "de-link" the CAA section 126(b) petition response from the NO_X SIP Call, and the EPA made final CAA section 126(b) findings for 12 states named in the petitions and the District of Columbia. The EPA found that sources in these states emitted in violation of the prohibition in the good neighbor provision with respect to the 1979 ozone NAAQS based on the affirmative technical determinations made in the May 1999 rulemaking. To remedy the violation under CAA

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section 126(c), the EPA required affected sources in the upwind states to participate in a regional allowance trading program whose requirements were designed to be interchangeable with the requirements of the optional NO_X Budget Trading Program model rule provided under the NO_X SIP Call. 65 FR 2674 (January 18, 2000). The EPA's action on these CAA section 126(b) petitions was upheld by the D.C. Circuit. *See Appalachian Power Co. v. EPA*, 249 F.3d 1032 (D.C. Cir. 2001).

The EPA next promulgated the Clean Air Interstate Rule (CAIR), 70 FR 25162 (May 12, 2005), to address interstate transport under the good neighbor provision with respect to the 1997 ozone NAAQS, as well as the 1997 $PM_{2.5}$ NAAQS. 70 FR 25172. The EPA adopted the same approach for quantifying the level of states' significant contribution to downwind nonattainment in CAIR as it used in the NO_X SIP Call, based on the determination in the NO_X SIP Call that downwind ozone nonattainment is due to the impact of emissions from numerous upwind sources and states. 70 FR 25162, 25172 (May 12, 2005). The EPA explained that "[t]ypically, two or more States contribute transported pollution to a single downwind area, so that the 'collective contribution' is much larger than the contribution of any single State." 70 FR 25186. CAIR included two distinct regulatory processes: (1) a rulemaking to define significant contribution (*i.e.*, the emissions reduction obligation) under the good neighbor provision and provide for submission of SIPs eliminating that contribution, 70 FR 25162 (May 12, 2005); and (2) a rulemaking to promulgate, where necessary, FIPs imposing emissions limitations in the event states did not submit SIPs. 71 FR 25328 (April 28, 2006). The FIPs required EGUs in affected states to participate in regional allowance trading programs, which replaced the previous NO_X Budget Trading Program.

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In conjunction with the second CAIR rulemaking, which promulgated backstop FIPs, the EPA acted on a CAA section 126(b) petition received from the state of North Carolina on March 19, 2004, seeking a finding that large EGUs located in 13 states were significantly contributing to nonattainment and/or interfering with maintenance of the 1997 ozone NAAQS and the 1997 $PM_{2.5}$ NAAQS in North Carolina. Citing the analyses conducted to support the promulgation of CAIR, the EPA denied North Carolina's CAA section 126(b) petition in full based on determinations either that the named states were not adversely impacting downwind air quality in violation of the good neighbor provision, or that such impacts were fully remedied by implementation of the emissions reductions required by the CAIR FIPs. 71 FR 25328, 25330 (April 28, 2006).

The D.C. Circuit found that the EPA's approach to CAA section 110(a)(2)(D)(i)(I) in CAIR was "fundamentally flawed" in several respects, and the rule was remanded in July 2008 with the instruction that the EPA replace the rule "from the ground up." *North Carolina*, 531 F.3d at 929. The decision concluded the EPA's analysis and compliance mechanisms did not address all elements required by the statute. The EPA's separate action denying North Carolina's CAA section 126(b) petition was not challenged.

On August 8, 2011, the EPA promulgated CSAPR to replace CAIR. 76 FR 48208 (August 8, 2011). CSAPR addressed the same (1997) ozone and $PM_{2.5}$ NAAQS as CAIR and additionally addressed interstate transport for the 2006 $PM_{2.5}$ NAAQS by requiring 28 states to reduce sulfur dioxide (SO_2) emissions, annual NO_X emissions, and/or ozone season NO_X emissions that would significantly contribute to other states' nonattainment or interfere with other states' ability to maintain these air quality standards. Consistent with prior determinations made in the NO_X SIP Call and CAIR, the EPA again found that multiple upwind states

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contributed to ozone nonattainment in multiple downwind states. Specifically, the EPA found "that the total 'collective contribution' from upwind sources represents a large portion of $PM_{2.5}$ and ozone at downwind locations and that the total amount of transport is composed of the individual contribution from numerous upwind states." 76 FR 48237. Accordingly, the EPA conducted a regional analysis, calculated emissions budgets for affected states, and required EGUs in these states to participate in new regional allowance trading programs to reduce statewide emissions levels.[21] CSAPR was subject to nearly 4 years of litigation. Ultimately, the Supreme Court upheld the EPA's approach to calculating emissions reduction obligations and apportioning upwind state responsibility under the good neighbor provision, but also held that the EPA was precluded from requiring more emissions reductions than necessary to address downwind air quality problems, or "over-controlling" upwind state emissions. *See EPA v. EME Homer City Generation, L.P.*, 134 S. Ct. 1584, 1607-09 (2014) (*EME Homer City*).[22]

In 2016, the EPA promulgated the CSAPR Update to address the good neighbor provision requirements for the 2008 ozone NAAQS. 81 FR 74504 (October 26, 2016). The CSAPR Update built upon previous regulatory efforts to address the collective contributions of

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[21] The CSAPR trading programs included assurance provisions to ensure that emissions are reduced within each individual state, in accordance with *North Carolina*, 531 F.3d at 907-08 (holding the EPA must require elimination of emissions from each upwind state that contribute significantly to nonattainment and interfere with maintenance in downwind areas). Those provisions were also included in the CSAPR Update and took effect with the 2017 CSAPR compliance periods.

[22] On remand from the Supreme Court, the D.C. Circuit further affirmed various aspects of the CSAPR, while remanding the rule without vacatur for reconsideration of certain states' emissions budgets where it found those budgets may over-control emissions beyond what was necessary to address the good neighbor requirements. *EME Homer City Generation, L.P. v. EPA*, 795 F.3d 118 (2015) (*EME Homer City II*). The EPA addressed the remand in several rulemaking actions in 2016 and 2017.

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ozone pollution from 22 states in the eastern U.S. to widespread downwind air quality problems. As with previous rulemakings, the EPA evaluated the nature (*i.e.*, breadth and interconnectedness) of the ozone problem and NO_X reduction potential from EGUs, including essentially all the EGUs at the facilities named in the New York CAA section 126(b) petition.[23] In the CSAPR Update, the EPA quantified emissions reduction obligations for each state based on an analysis of control strategies that could be implemented by the 2017 ozone season and implemented those emissions reductions through FIPs which required EGUs in affected states to participate in a regional allowance trading program to further reduce statewide NO_X emissions levels.

At the time the EPA finalized the CSAPR Update in 2016, the EPA was unable to determine whether the rule fully resolved good neighbor obligations with respect to the 2008 ozone NAAQS for most (*i.e.*, 21) of the states subject to that action, including those addressed in New York's petition (*i.e.*, Illinois, Indiana, Kentucky, Maryland, Michigan, Ohio, Pennsylvania, Virginia and West Virginia). The EPA stated that, based on its analysis at that time, the emissions reductions required by the rule "may not be all that is needed" to address transported emissions.[24] 81 FR 74521–22 (October 26, 2016). The information available at that time suggested that downwind air quality problems would remain in 2017 after implementation of the CSAPR Update and that upwind states continued to be linked to those downwind problems at or

[23] The EPA uses the language "*essentially all* the EGUs at the facilities named…" (emphasis added) to clarify that the New York petition identifies sources at the facility, rather than at the unit, level. The CSAPR Update looked at unit-level data and included all fossil-fuel-fired boiler or combustion turbine EGUs with a capacity (electrical output) greater than 25 megawatts (MW). *See* 81 FR 74563 (October 26, 2016).

[24] The EPA determined that the emissions reductions required by the CSAPR Update satisfied the full scope of the good neighbor obligation for Tennessee with respect to the 2008 ozone NAAQS. 81 FR 74551–52 (October 26, 2016).

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above the one-percent threshold. However, in the CSAPR Update, the EPA could not determine whether, in step 3 of the four-step interstate transport framework, the EPA had quantified all emissions reductions that may be considered cost-effective because the rule did not evaluate non-EGU ozone season NO_X reductions and further EGU control strategies (*i.e.*, the implementation of new post-combustion controls) that were achievable on timeframes extending beyond the 2017 analytic year.

On December 6, 2018, the EPA finalized a determination that, based on the latest available emissions inventory and air quality modeling data for a 2023 analytic year, the CSAPR Update fully addresses the good neighbor provision requirements for the 2008 ozone NAAQS for 20 eastern states (among the 22) previously addressed in the CSAPR Update. 83 FR 65878 (December 21, 2018). The EPA's Determination Rule applied the four-step interstate transport framework but did not move beyond an analysis at step 1 of the four-step framework, because the EPA found that there would be no remaining nonattainment or maintenance receptors for the 2008 ozone NAAQS in the eastern U.S. in 2023. Therefore, with the CSAPR Update fully implemented, the EPA finalized in the Determination Rule a finding that the 20 states addressed by that action (including eight of the nine states named in New York's petition) will not contribute significantly to nonattainment in, or interfere with maintenance by, any other state regarding the 2008 ozone NAAQS. The EPA had already determined that the remaining two states would have no remaining good neighbor obligation for the 2008 ozone NAAQS – one in the CSAPR Update (Tennessee), 81 FR 74540 (October 26, 2016), and the other in a separate SIP approval (Kentucky, the ninth state named in New York's petition), 83 FR 33730 (July 17, 2018).

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Most recently, the EPA acted on five CAA section 126(b) petitions submitted by the states of Delaware and Maryland regarding various sources in five upwind states with regard to the 2008 and 2015 ozone NAAQS. In denying the petitions, the EPA applied the same four-step interstate transport framework used in prior rulemakings and relied on analysis and determinations made in the CSAPR Update for purposes of evaluating the good neighbor obligations with respect to the 2008 ozone NAAQS. 83 FR 50444 (October 5, 2018).

D. The CAA Section 126(b) Petition from New York

On March 12, 2018, the New York State Department of Environmental Conservation (NY DEC) submitted a CAA section 126(b) petition alleging that emissions from a group of specified upwind sources in Illinois, Indiana, Kentucky, Maryland, Michigan, Ohio, Pennsylvania, Virginia, and West Virginia significantly contribute to nonattainment and interfere with maintenance of the 2008 and 2015 ozone NAAQS in New York State, specifically in the New York-Northern New Jersey-Long Island, NY-NJ-CT area (hereafter the New York metropolitan area or NYMA) and in Chautauqua County in western New York.

1. The petition asserts that Chautauqua County and the NYMA have an air quality problem for the 2008 and the 2015 ozone NAAQS.

The petition explains that the EPA designated the Chautauqua County area (*i.e.*, Jamestown, New York) as Marginal nonattainment for the 2008 ozone NAAQS and that the area attained the NAAQS by the Marginal area attainment date of July 20, 2015. The petition asserts, however, that the area remains in danger of exceeding the ozone NAAQS, particularly the 2015 standard.

The petition also explains that the EPA designated the NYMA as Marginal nonattainment for the 2008 ozone NAAQS. The NYMA failed to attain the NAAQS by the Marginal attainment

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deadline of July 20, 2015, and the EPA subsequently reclassified the area to a Moderate nonattainment area on June 3, 2016.[25] The petition further asserts that all three states in the NYMA (*i.e.*, New York, New Jersey and Connecticut) have surpassed their three-percent-per-year emissions reductions requirements for the 2008 NAAQS; yet certified monitoring data through 2016 and (at the time of the petition submittal) preliminary 2017 data indicate that the area is not attaining the 2008 NAAQS, with one monitor in Connecticut recording a preliminary 2017 design value of 83 ppb. The petition, thus, concludes that the area will likely be designated nonattainment for the 2015 ozone NAAQS.[26]

2. The petition asserts that NO_X transport from the nine named states impacts air quality in New York State.

The petition identifies nine states that were linked to air quality problems in New York in the EPA's 2017 contribution modeling in the CSAPR Update based on impacts equal to or greater than the threshold of one percent of the 2008 NAAQS (or 0.75 ppb or more): Illinois, Indiana, Kentucky, Maryland, Michigan, Ohio, Pennsylvania, Virginia and West Virginia. The petition also asserts that the high concentrations of ozone that are transported to New York are largely the result of emissions from major stationary sources of NO_X located in the linked states. The petition cites efforts by New York and other parties to mitigate regional transport of NOx,

[25] The EPA notes that New York submitted its CAA section 126(b) petition before the EPA proposed to reclassify the NYMA as a Serious nonattainment area. 83 FR 56781 (November 14, 2018).

[26] The petition asserts that the EPA had not yet issued final designations at the time the petition was submitted. On April 30, 2018, the EPA designated New York-Northern New Jersey-Long Island, NY-NJ-CT area as a Moderate nonattainment area, the same as the NYMA nonattainment area for 2008 ozone NAAQS. 83 FR 25776 (June 4, 2018).

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including implementation of the NO_X Budget Trading Program under the NO_X SIP Call and the CSAPR allowance trading programs.

Additionally, the petition describes a study that allegedly found that air transported into Chautauqua County on the worst air quality days results in maximum daily ozone concentrations that, on average, are within 2 ppb of the 2015 ozone NAAQS and often exceed the standard of 70 ppb.[27] The petition concludes that, given the absence of major sources in the Chautauqua County area, reductions in ozone precursor emissions are needed from upwind states, especially from sources in Illinois, Indiana, Kentucky, Michigan, Ohio, and Virginia.

3. The petition asserts that facilities emitting (or projected to emit) above 400 tons of NO_X significantly contribute to air quality problems or interfere with maintenance in New York State.

When analyzing significant ozone contributions, the petition considers the highest emitting facilities from the previously named linked states. Specifically, the petition identifies EGU and non-EGU facilities emitting, or projected to emit, 400 tons per year or more of NO_X in each of these linked states and asserts that these facilities are expected to have the greatest impact on the ability of the NYMA and Chautauqua County to attain and maintain the 2008 and

[27] The petition discusses the results of a study titled the "Dunkirk Monitor Transport Study," which presents an analysis of back-trajectories used to single out interstate airflow on "design days," which the petition defines as days considered in the calculation of the design values. The subject days include the four days in each year from 2013 to 2017 with the largest daily maximum 8-hour ozone concentrations at the Dunkirk monitoring site in Chautauqua County, New York. The Dunkirk monitoring site is the design value monitoring site in Chautauqua County (*i.e.*, the site with the highest design value in the county).

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2015 NAAQS.[28] The petition asserts that the identified facilities can reasonably be retrofitted with control equipment or can operate existing controls more frequently to reduce NOx.

The petition provides and uses NY DEC generated air quality modeling data to quantify projected 2017 impacts on ozone concentrations from the collective NO_X emissions of the EGU and non-EGU (including oil and gas) facilities that emitted at least 400 tons-per-year of NO_X in each state that was linked in the EPA's modeling for the CSAPR Update ("400 tons-per-year sources"). According to the petition, results from NY DEC's independent modeling analysis show single-day impacts from individual states' groups of 400 tons-per-year sources of up to 6.34 ppb in Chautauqua County and 4.97 ppb in the New York portion of the NYMA nonattainment area.[29]

The petition asserts that, where the maximum influence from an individual state's combined 400 tons-per-year sources exceeds 0.75 ppb at a particular monitor, this indicates significant contribution to nonattainment or interference with maintenance of the 2008 ozone

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[28] The petition identifies which facilities emit 400 tons per year of more of NO_X based on 2017 EGU projections by the Mid-Atlantic Regional Air Management Association (MARAMA). The petition also identifies non-EGU sources emitting greater than 400 tons of NO_X in the 2014 National Emissions Inventory (NEI).

[29] The petition provides additional detail regarding the modeling methodology. Specifically, the petition notes that NY DEC used version 5.0.2 of the Community Multiscale Air Quality (CMAQ) model with the EPA's Weather Research Forecast (WRF) 2011 meteorological data to model hourly ozone concentrations during the period May 18 to July 30 for a 2017 "baseline" scenario and additional state-by-state "control" modeling scenarios in which emissions from the named sources in a given state were set to zero. The petition explains that NY DEC then used the modeled concentrations to calculate the 8-hour daily maximum average (MDA8) in each grid cell on each day of the modeling period for each modeled scenario. The difference in MDA8 concentrations between the 2017 baseline and each state zero-out run was used to represent the contributions on each day. The NY DEC then selected the largest single-day contribution from among the highest ozone concentration days to support their analysis of contributions relative to a one-percent-of-the-NAAQS threshold.

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NAAQS, and an influence above 0.70 ppb indicates significant contribution to nonattainment or interference with maintenance of the 2015 ozone NAAQS.

The petition also challenges the applicability of the EPA's recently-released 2023 air quality modeling[30] to this CAA section 126(b) petition. The petition states that NY DEC has significant concerns about the assumptions and results of the EPA's modeling, such as the EPA's expectation that uncontrolled EGUs will greatly reduce their emissions rates in the absence of unit-level enforceable limits and the concern that the EPA may have underestimated the ozone concentration results for monitoring sites located near significant water bodies based on the treatment of model cells containing a land/water interface. The petition also asserts that modeling of 2023 is insufficient to support good neighbor SIPs and cannot be used to support a review of New York's petition because CAA section 126(c) explicitly states that compliance must be met "in no case later than three years after the date of [a CAA section 126(b)] finding," and 2023 is more than 3 years after the deadline by which the EPA must act on the NY DEC petition. The EPA notes that New York submitted its CAA section 126(b) petition before the EPA finalized the Determination Rule.

[30] *See* the EPA's October 27, 2017 memorandum titled, "Supplemental Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I)" that provided future year ozone design values for monitoring sites in the U.S. based on updated air quality modeling (for 2023) and monitoring data.

4. The petition requests that the EPA establish enforceable emissions limitations for the named major NO_X sources at levels designed to prevent them from significantly contributing to nonattainment or interfering with maintenance in New York State.

The petition requests that the EPA establish permanent and enforceable NO_X emissions limits based on New York's determination of available cost-effective controls. Specifically, the petition requests that the named sources be subject to emissions limits consistent with Reasonably Available Control Technology (RACT) as defined by New York State, which bases its presumptive limits and facility-specific control analyses on a standard of $5,000 per ton of NO_X reduced.[31] The petition acknowledges that some of the facilities identified in the petition may already operate with a NO_X emissions rate similar to New York's RACT limits. Nonetheless, the petition asks that the EPA establish enforceable daily emissions limits during the ozone season to require these sources to continue to operate at these rates in the future. The petition claims that enforceable emissions limits would prevent emissions controls from being turned off, which the petition asserts occurs when the sources in the state are collectively emitting well-below their seasonal CSAPR budgets.

5. Subsequent Actions and Correspondence Regarding the New York Petition

Consistent with CAA section 307(d)(10), the EPA determined that the 60-day period for responding to New York's petition was insufficient for the EPA to complete the necessary technical review, develop an adequate proposal, and allow time for notice and comment,

[31] According to the petition, New York's standard of $5,000 per ton of NO_X reduced for RACT is inflation-adjusted. Hence, the EPA observes that this cost per ton will not change in future years even if inflation leads to increases in NO_X control costs per ton of NO_X reduced beyond current estimates. For example, assuming a control cost of $5,000 per ton of NO_X reduced, a 10 percent inflation rate will yield a control cost of $5,500 per ton (1.10 * 5,000), but the inflation-adjusted RACT basis of $5,000 per ton of NO_X reduced remains unchanged.

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including an opportunity for public hearing, on a proposed finding regarding whether emissions from the group of identified sources in nine states (Illinois, Indiana, Kentucky, Maryland, Michigan, Ohio, Pennsylvania, Virginia and West Virginia) significantly contribute to nonattainment and interfere with maintenance of the 2008 and 2015 ozone NAAQS in New York State. On May 11, 2018, the EPA published a final rule extending the deadline for acting on New York's section 126(b) petition to November 9, 2018.[32]

Since receiving New York's section 126(b) petition on March 14, 2018, the EPA has received several letters from the public providing information regarding the content of the subject petition. We briefly describe those letters here.

On April 13, 2018, the U.S. Chamber of Commerce submitted a letter to the EPA requesting an extension beyond the 60-day statutory deadline for petition response and claiming legal and technical deficiencies in the New York petition. Specifically, the U.S. Chamber of Commerce asserts that the petition over-estimates emissions from "numerous" facilities identified in the petition and inappropriately includes monitoring sites that currently attain the ozone NAAQS. Further the U.S. Chamber of Commerce contends that applying New York's definition of RACT outside of New York raises "significant constitutional and statutory issues."

On June 20, 2018, Sunoco Partners Marketing & Terminals submitted a letter to the EPA providing corrections to the operating status of the Marcus Hook Refinery, identified in the New York section 126(b) petition as the Sunoco Inc. (R&M)/Marcus Hook Refinery, and requesting that the EPA remove the identified source from the list of facilities emitting more than 400 tons per year of NOx.

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[32] 83 FR 21909 (May 11, 2018).

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On April 25, 2018, the Air Stewardship Coalition (ASC) submitted a letter to the EPA requesting an extension beyond the 60-day statutory deadline for petition response citing the technical complexity of the New York petition. ASC submitted a follow-up letter on September 24, 2018, asking the EPA to deny New York's section 126(b) petition. The ASC letter asserts that New York State has no ozone attainment issues outside of the NYMA and that the NY DEC's independent modeling used a "non-standard approach" that resulted in "flawed" results.

On May 31, 2018, the Midwest Ozone Group (MOG) submitted a letter asking the EPA to deny New York's section 126(b) petition. The MOG letter asserts that the New York petition is deficient in that it incorrectly characterizes the emissions from identified sources and states; the petition does not consider exceptional events or international transport; and the petition does not consider the EPA's most recent modeling showing that all New York monitoring sites will attain the 2008 ozone NAAQS. Further, MOG provides the results of its own independent modeling of the May 1 through August 31, 2011, ozone season run at a 4-kilometer (km) grid resolution rather than the 12 km grid resolution used in the EPA's modeling. MOG asserts that at the finer resolution, all monitoring sites in New York attain both the 2008 and the 2015 ozone NAAQS. MOG provided the EPA with supplemental comments and analyses on October 19, 2018, and on December 17, 2018. MOG asserts that its additional comments further support the EPA's denial of the New York section 126(b) petition.

The EPA acknowledges receipt of these letters and has made them available in the docket for this action. However, the EPA is not responding directly to these letters in this notice nor is the EPA relying on the information provided in these letters as a basis for its proposed action. Rather, the EPA encourages interested parties to review this proposal and then submit relevant comments during the public comment period.

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IV. The EPA's Proposed Decision on the CAA Section 126(b) Petition from New York

A. The EPA's Approach for Granting or Denying CAA Section 126(b) Petitions Regarding the 2008 and 2015 8-hour Ozone NAAQS

As discussed in Section III.B of this notice, section 126(b) of the CAA provides a mechanism for states and other political subdivisions to seek abatement of pollution in other states that may be affecting their air quality. Section 126(b) does not, however, identify a specific methodology or specific criteria for the Administrator to apply when making a CAA section 126(b) finding or denying a petition. Therefore, the EPA has the discretion to identify relevant criteria and develop a reasonable methodology for making a CAA section 126(b) finding. *See, e.g., Chevron, U.S.A., Inc. v. NRDC*, 467 U.S. 837, 842–43 (1984); *Smiley v. Citibank*, 517 U.S. 735, 744–45 (1996).

With respect to the statutory requirements of section 126 and section 110(a)(2)(D)(i) of the CAA, the EPA has consistently acknowledged that Congress created these provisions as two independent statutory tools to address the problem of interstate pollution transport. *See, e.g.*, 76 FR 69052, 69054 (November 7, 2011).[33] The fact that Congress did not indicate any preference for one over the other, suggests that either tool could serve as a legitimate means to produce the desired result. While the provisions in CAA section 110(a)(2)(D)(i) and section 126 are independent, they are also closely linked. A violation of the prohibition in CAA section 110(a)(2)(D)(i) is a condition precedent for action under CAA section 126(b) and, critically, both provisions construe significant contribution to nonattainment and interference with maintenance

[33] Courts have also upheld the EPA's position that CAA sections 110(a)(2)(D)(i) and section 126 are two independent statutory tools to address the same problem of interstate transport. *See GenOn REMA, LLC v. EPA*, 722 F.3d 513, 520-23 (3d Cir. 2013); *Appalachian Power*, 249 F.3d at 1047.

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identically (since the identical terms are naturally interpreted as meaning the same thing in the two linked provisions). *See Appalachian Power*, 249 F. 3d at 1049–50.

Thus, in addressing a CAA section 126(b) petition for ozone transport, the EPA believes it is appropriate to interpret these ambiguous terms (*i.e.*, "contribute significantly to nonattainment" and "interfere with maintenance") consistent with the EPA's past approach to evaluating interstate ozone pollution transport under the good neighbor provision, and its interpretation and application of that related provision of the statute. As described further in Section III of this notice, ozone is a regional air pollutant and the EPA's previous analyses and regulatory actions have evaluated the regional interstate ozone transport problem using a four-step analytic framework. The EPA most recently applied this four-step framework in promulgating the CSAPR Update and the Determination Rule to address interstate transport with respect to the 2008 ozone NAAQS under CAA section 110(a)(2)(D)(i)(I). This approach is particularly applicable with respect to New York's claims regarding the 2008 ozone NAAQS because both rulemakings address projected air quality problems in New York and the impacts of upwind states, including those named in the petition, on such areas. Given the specific cross-reference in CAA section 126(b) to the substantive prohibition in CAA section 110(a)(2)(D)(i), the EPA believes any prior findings made under the good neighbor provision are informative—if not determinative—for a CAA section 126(b) action. Therefore, in this instance, the EPA's decision whether to grant or deny the CAA section 126(b) petition regarding the 2008 8-hour ozone NAAQS depends on application of the four-step interstate transport framework.

While the EPA previously applied the four-step interstate transport framework and interpreted significant contribution and interference with maintenance under CAA section 110(a)(2)(D)(i) for the 2008 ozone NAAQS via the CSAPR Update and the Determination Rule,

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the EPA has not yet engaged in a rulemaking action to apply the good neighbor provision for the 2015 ozone NAAQS. However, the EPA recently released technical information intended to inform states' development of SIPs to address the 2015 ozone standard.[34] This information included the results of air quality modeling to identify potential downwind air quality problems in 2023, which we discuss in more detail in Section IV.B.1 of this document. As part of the memorandum releasing the technical information, the EPA acknowledged that states have the flexibility to pursue approaches that may differ from the EPA's historical approach to evaluating interstate transport in developing their good neighbor SIPs.[35] Nonetheless, the EPA's technical analysis and the potential flexibilities identified in the memorandum generally followed the basic elements of the EPA's historical four-step interstate transport framework. As described previously, CAA section 126(b) does not identify a specific methodology or specific criteria for the Administrator to apply when making a CAA section 126(b) finding or denying a petition. Thus, given the EPA's discretion to identify relevant criteria and develop a reasonable methodology to inform a CAA section 126(b) finding, the EPA believes that it continues to be appropriate for the Agency to evaluate the claims regarding the 2015 ozone NAAQS in New

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[34] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I) (March 27, 2018).

[35] The EPA has also released two additional memoranda providing guidance to states developing good neighbor SIPs for the 2015 ozone NAAQS. *See* Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards (August 31, 2018); and Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards (October 19, 2018). All three memoranda are available in the docket for this proposed action and at *https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naaqs*.

York's section 126(b) petition consistent with the EPA's four-step interstate transport framework used to evaluate other ozone NAAQS.

Accordingly, because the EPA interprets "contribute significantly to nonattainment" and "interfere with maintenance" to mean the same thing under both sections 110(a)(2)(D)(i) and 126(b), the EPA's decision whether to grant or deny a CAA section 126(b) petition regarding both the 2008 and 2015 ozone NAAQS depends on application of the analysis used to address CAA section 110(a)(2)(D). That is, the EPA assesses whether there is a downwind air quality problem in the petitioning state (*i.e.*, step 1 of the four-step interstate transport framework); whether the upwind state where the source subject to the petition is located is linked to the downwind air quality problem (*i.e.*, step 2); and, if such a linkage exists, whether there are cost-effective emissions reductions available from sources in the upwind state to support a conclusion that the sources in the state significantly contribute to nonattainment or interfere with maintenance of the NAAQS (*i.e.*, step 3).

In interpreting the phrase "emits or would emit in violation of the prohibition of section [110(a)(2)(D)(i)]," if the EPA or a state has already adopted provisions that eliminate the significant contribution to nonattainment or interference with maintenance of the NAAQS in downwind states, then there simply is no violation of the CAA section 110(a)(2)(D)(i)(I) prohibition. Stated another way, requiring additional reductions from upwind sources would result in eliminating emissions that do not contribute significantly to nonattainment or interfere with maintenance of the NAAQS. Such an action is beyond the scope of the prohibition in CAA section 110(a)(2)(D)(i)(I) and, therefore, beyond the scope of the EPA's authority to make the requested finding under CAA section 126(b). *See EME Homer City*, 134 S. Ct. at 1604 n.18, 1608-09 (holding the EPA may not require sources in upwind states to reduce emissions by more

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than necessary to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS in downwind states under the good neighbor provision).

Thus, it follows that if a state already has a SIP that the EPA approved as adequate to meet the requirements of CAA section 110(a)(2)(D)(i)(I) for a specific NAAQS, the EPA would not find that a source in that state was emitting in violation of the prohibition of CAA section 110(a)(2)(D)(i)(I) absent new information demonstrating that the SIP is now insufficient to address the prohibition for that NAAQS. Similarly, if the EPA has promulgated a FIP that it has determined fully eliminates emissions that significantly contribute to nonattainment or interfere with maintenance in a downwind state for a specific NAAQS, the EPA has no basis to find that sources in the upwind state are emitting or would emit in violation of the CAA section 110(a)(2)(D)(i)(I) prohibition, absent new information to the contrary for that NAAQS.

The EPA notes that the approval of a SIP or promulgation of a FIP implementing CAA section 110(a)(2)(D)(i)(I) constitutes a determination that a state's emissions are adequately controlled considering the specific facts that the EPA analyzed while approving the SIP or promulgating the FIP. If a petitioner produces new data or information showing a different level of contribution or other facts the EPA did not consider when approving the SIP or promulgating the FIP, compliance with a SIP or FIP may not be determinative regarding whether the upwind sources emit or would emit in violation of the prohibition of CAA section 110(a)(2)(D)(i)(I). *See* 64 FR 28250, 28274 n.15 (May 25, 1999); 71 FR 25328, 25336 n.6 (April 28, 2006); *Appalachian Power*, 249 F.3d at 1067 (later developments can be the basis for another CAA section 126 petition). Thus, in circumstances where a state is implementing a SIP or the EPA is implementing a FIP addressing CAA section 110(a)(2)(D)(i)(I), the EPA will evaluate the CAA

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section 126(b) petition to determine if the submitted petition raises new information that merits further consideration.

B. The EPA's Evaluation of Whether the Petition Is Sufficient to Support a CAA Section 126(b) Finding

Consistent with the EPA's approach to evaluating several prior CAA section 126(b) petitions, the EPA interprets CAA section 126(b) as placing an initial burden on the petitioner to establish a technical basis for the specific finding requested. Thus, the EPA first looks to see if the petition identifies or contains a sufficient basis to make the requested finding. *See, e.g.*, 76 FR 19662, 19666 (April 7, 2011) (proposed response to petition from New Jersey regarding SO_2 emissions from the Portland Generating Station); 83 FR 16064, 16070 (April 13, 2018) (final response to petition from Connecticut regarding ozone emissions from the Brunner Island Steam Electric Station); 83 FR 50444, 50452 (October 5, 2018) (final response to petitions from Delaware and Maryland regarding ozone emissions from four and 36 EGUs, respectively).

The EPA's interpretation of the statute is reasonable especially given the expeditious and limited timeframe Congress allotted to the EPA for action on a CAA section 126(b) petition: as described in Section III.D.5, Congress provided the EPA with only 60 days from its receipt of a CAA section 126(b) petition to hold a hearing and act on that petition. Given the short statutory deadline, it is reasonable for the EPA to conclude that Congress did not intend a requirement that the EPA undertake extensive fact-finding or independent analysis as part of its action on a petition and instead place the burden upon the petitioner to provide adequate support for a requested finding under CAA section 126(b), an interpretation affirmed by the courts. *See New York v. EPA*, 852 F.2d 574 (D.C. Cir. 1988) (upholding the EPA's interpretation of the statutory burden in reviewing the EPA's denial of separate CAA section 126(b) petitions filed by

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Pennsylvania, Maine, and New York regarding air quality impacts from numerous sources located in seven midwestern states); *see also see also Citizens Against Ruining the Environment v. EPA,* 535 F.3d 670 (7th Cir.) (2008) (affirming the EPA's similar interpretation of the petitioner's burden under CAA section 502(b)(2) given the parallel 60-day deadline for the EPA to respond to a title V petition). In *New York v. EPA*, the D.C. Circuit evaluated the EPA's obligation in acting on a CAA section 126(b) petition, determining both that the 60-day deadline for action meant Congress did not intend for the EPA to undertake a "litany of tasks" in evaluating the petition and that denial was proper where the states failed to substantiate the claims raised in their petitions. *Id.* Accordingly, where a CAA section 126(b) petition does not contain sufficient technical information or justification to support the requested finding without the EPA undertaking an independent analysis, it is reasonable for the EPA to interpret CAA section 126(b) to support a denial of the petition.

The remedy provision under CAA section 126(c) further supports the reasonableness of the EPA's interpretation. CAA section 126(c) by default requires an existing source to cease operation within 3 months if the EPA makes the requested finding under CAA section 126(b). It is difficult to imagine that Congress intended to require sources to shut down entirely absent a sufficient demonstration that that such an extreme remedy was necessary. This concern is exacerbated by the provision of CAA section 126(b) that permits a petitioner to target "groups of sources," as New York did in the petition that is subject to this action, because Congress certainly could not have envisioned that hundreds of stationary sources would be required to shut down within 3 months without a complete and compelling justification. The potential for such an unintended consequence further supports the placement of burden on the petitioner to demonstrate in the first instance whether the identified sources emit or would emit in violation of

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the good neighbor provision. While CAA section 126(c) provides in the alternative that the EPA may permit continued operation if it establishes emissions limitations for the sources subject to the finding, this too is a detailed analytic task that requires time and resources to develop.

While the EPA interprets CAA section 126(b) as putting the burden on the petitioner, rather than the EPA, to provide a basis or justification for making the requested finding, nothing precludes the EPA from choosing to conduct an independent analysis on a discretionary basis when the Agency determines it would be helpful in evaluating a petition. As discussed in Section III, the EPA has chosen to invoke its discretion in prior actions on CAA section 126(b) petitions concerning ozone, primarily where the Agency already had technical data or findings it could rely on as part of its independent analysis. Notably, because this supplemental information already existed at the time the EPA acted on those petitions, the EPA could leverage such information in its action without undertaking new analyses that would naturally take significantly more time and resources to develop.[36] As further described in Sections IV.B.1-3, where the EPA has existing relevant information at its disposal that could help inform its proposed decision on New York's section 126(b) petition, the EPA is using such information as part of its discretionary independent analysis of the petition.

1. The EPA's evaluation of New York's petition considering step 1

With respect to step 1 of the four-step interstate transport framework, the EPA began by evaluating New York's petition to determine whether the state identified a downwind air quality problem (nonattainment or maintenance) that may be impacted by ozone transport from other

[36] *See* 83 FR 16064 (April 13, 2018); 83 FR 50444 (October 5, 2018).

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states. The EPA conducted this evaluation for Chautauqua County and the NYMA regarding both the 2008 and 2015 ozone NAAQS.

As discussed in Section III.C, the EPA typically focuses its analysis regarding potential downwind air quality problems on a future analytic year given the forward-looking nature of the good neighbor obligation in CAA section 110(a)(2)(D)(i)(I). The good neighbor provision requires that states prohibit emissions that "will" significantly contribute to nonattainment or interfere with maintenance of the NAAQS in any other state. The EPA reasonably interprets this language as permitting states and the EPA in implementing the good neighbor provision to prospectively evaluate downwind air quality problems and the need for further upwind emissions reductions. In the EPA's prior regional transport rulemakings, the Agency generally evaluated whether upwind states "will" have such an impact based on projections of air quality in the future year that considers the timeframes for regionwide implementation of control strategies and the timeframe in which a rulemaking requiring such controls would be finalized. For the 1998 NO_X SIP Call, the EPA used an analytic year of 2007. For the 2005 CAIR, the EPA used analytic years of 2009 and 2010 for ozone and $PM_{2.5}$, respectively. 63 FR 57450; 70 FR 25241. The D.C. Circuit affirmed the EPA's interpretation of "will" in CAIR, finding the EPA's consideration of future projected air quality (in addition to current measured data) to be a reasonable interpretation of an ambiguous term. *North Carolina*, 531 F.3d at 913–14. The EPA applied the same approach in finalizing CSAPR in 2011 and the CSAPR Update in 2016 by evaluating air quality in 2012 and 2017, respectively. 76 FR 48211; 81 FR 74537.

Particularly relevant to this action, the EPA also applied this interpretation of "will" in the 2018 Determination Rule to evaluate remaining good neighbor obligations with respect to the 2008 ozone NAAQS for the CSAPR Update states, including the nine upwind states cited in

New York's petition. 83 FR 65889-90. As explained in that action, a key decision informing the application of the interstate transport framework is the selection of a future analytic year. Several court decisions have guided the factors that the EPA considers in selecting an appropriate future analytic year for such an analysis. First, in *North Carolina*, the D.C. Circuit held that the timeframe for implementation of emissions reductions required by the good neighbor provision should be selected by considering the relevant attainment dates of downwind nonattainment areas affected by interstate transport of air pollution. 531 F.3d at 911–12. Moreover, the Supreme Court and the D.C. Circuit have both held that the EPA may not over-control upwind state emissions relative to the downwind air quality problems. Specifically, the courts found that the Agency may not require emissions reductions (at steps 3 and 4 of the interstate transport framework) from a state that are greater than necessary to achieve attainment and maintenance of the NAAQS in all the downwind areas to which that state is linked. *See EME Homer City*, 134 S. Ct. at 1600–01; *EME Homer City II*, 795 F.3d at 127, 129–30 (on remand from the Supreme Court, finding ozone-season NO_X budgets for ten states invalid because the EPA's modeling showed that the downwind air quality problems to which these states were linked would be resolved by the time the budgets would be implemented). These court decisions support the Agency's choice to use a future analytic year to help ensure that any emissions reductions that the EPA may require of sources in upwind states do not over- or under-control emissions with respect to downwind air quality at the time by which that those controls could feasibly be implemented.

Thus, in determining the appropriate future analytic year for purposes of assessing remaining interstate transport obligations for the 2008 ozone NAAQS in the Determination Rule, the EPA considered two primary factors: (1) the applicable attainment dates for the 2008 ozone

NAAQS; and (2) the timing to feasibly implement new NO_X control strategies not previously addressed in the CSAPR Update. As the applicable attainment dates, the EPA explained that the next attainment dates for the 2008 ozone NAAQS would be July 20, 2021, for nonattainment areas classified as Serious, and July 20, 2027, for nonattainment areas classified as Severe.

The EPA then evaluated the timeframe necessary to implement additional NO_X control strategies at various sources across the region. For EGUs, the EPA explained that it was appropriate to give particular weight to the timeframe required for implementation of selective catalytic reduction (SCR) across the region because of the potential for larger emissions reductions as compared to selective non-catalytic reduction (SNCR). The EPA determined that SCR project development and installation may require up to 39 months for an individual power plant installing controls on more than one boiler,[37] and that a minimum of 48 months (4 years) is a reasonable time-period to allow to complete all necessary steps of SCR projects at EGUs on a regional scale, considering the necessary stages of post-combustion control project planning, shepherding of labor and material supply, installation, coordination of outages, testing, and operation. The EPA further concluded that SNCR installations, while generally having shorter project timeframes (*i.e.*, up to 16 months for an individual power plant installing controls on more than one boiler), share similar implementation steps with and need to account for the same

[37] *See* Table 3–1 in Engineering and Economic Factors Affecting the Installation of Control Technologies for Multipollutant Strategies. EPA Final Report. EPA-600/R-02/073. October 2002. Available at *https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=NRMRL&dirEntryId=63473.*

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regional factors as SCR installations.[38] The EPA, therefore, concluded that it may reasonably take up to 4 years to install the new emissions controls regionwide for EGUs. 83 FR 65893-901.

The EPA further explained that many of the same considerations affecting the EPA's analysis of regionwide implementation of controls at EGUs would also affect the regionwide implementation of controls at non-EGUs, which may be more complex considering the diversity of non-EGU sources as well as the greater number and smaller size of the individual sources. The EPA noted that preliminary estimates for the implementation of some potential control technologies on non-EGUs only account for the time between bid evaluation and startup but do not account for additional considerations such as pre-bid evaluation studies, permitting, and installation of monitoring equipment. Accordingly, the EPA concluded that it was reasonable to assume for purposes of the Determination Rule that an expeditious timeframe for installing sector- or region-wide controls on non-EGU sources could also be 4 years or more. 83 FR 65901-04.

Considering the timeframes for regionwide implementation of control strategies and the timeframe in which a rulemaking requiring such controls would be finalized, the EPA concluded that reductions from such control strategies were unlikely to be implemented for a full ozone season until 2023. The EPA acknowledged that 2023 is later than the attainment date for nonattainment areas classified as Serious (July 20, 2021), but concluded that it was unlikely

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[38] *See* the month-by-month evaluation of SNCR installation presented in Exhibit A-6 in Engineering and Economic Factors Affecting the Installation of Control Technologies for Multipollutant Strategies. EPA Final Report. EPA-600/R-02/073. October 2002. Available at *https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=NRMRL&dirEntryId=63473*. Evaluation is also in the EPA's CSAPR Update EGU NO_X Mitigation Strategies Final Rule TSD. *See* Docket ID No. EPA-HQ-OAR-2015-0500 (available at *http://www.regulations.gov*).

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emissions control requirements could be feasibly promulgated and implemented by that earlier date. Accordingly, the EPA determined that 2023 was a reasonable year to assess downwind air quality to evaluate any remaining requirements under the good neighbor provision for the 2008 ozone NAAQS.[39] 83 FR 65901-05.

After selecting the analytic year, the EPA then used the Comprehensive Air Quality Model with Extensions (CAMx v6.40) to model emissions in 2011 and 2023, based on updates provided to the EPA from states and other stakeholders in the January 6, 2017 NODA and an October 27, 2017, EPA memorandum.[40] This updated modeling was used in the Determination Rule to estimate ozone design values in 2023, as described in the Determination Rule Air Quality Modeling Technical Support Document (TSD).[41] The EPA used outputs from the 2011 and 2023 model simulations to project base period 2009-2013 average and maximum ozone design values to 2023 at monitoring sites nationwide. In projecting future year design values, the EPA applied

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[39] Using the 2023 analytic year also allowed the EPA to begin the updated analysis using the data sets originally developed for a January 2017 Notice of Data Availability (NODA) (82 FR 1733, January 6, 2017), which the EPA revised in response to stakeholder feedback. Accordingly, the EPA initiated its analysis more quickly than if a different year had been chosen, which might have delayed subsequent rulemaking actions and therefore emissions reductions.

[40] *See* Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 Ozone National Ambient Air Quality Standard (NAAQS), 82 FR 1733 (January 6, 2017). This memorandum also supplements the information provided in, "Supplemental Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I)." Memorandum from Stephen D. Page, Director, U.S. EPA Office of Air Quality Planning and Standards, to Regional Air Division Directors, Regions 1−10. October 27, 2017. Available at *https://www.epa.gov/sites/production/files/2017-10/documents/final_2008_o3_naaqs_transport_memo_10-27-17b.pdf.*

[41] Air Quality Modeling Technical Support Document for the Updated 2023 Projected Ozone Design Values. U.S. EPA Office of Air Quality Planning and Standards. June 2018. Document developed to support the Determination Rule, 83 FR 65878 (December 21,2018). Available at *https://www.epa.gov/airmarkets/air-quality-modeling-technical-support-document-updated-2023-projected-ozone-design.*

its own modeling guidance,[42] which recommends using model predictions from the "3 x 3" array of grid cells surrounding the location of the monitoring site.[43] Considering the comments on the January 2017 NODA and other analyses, the EPA also projected 2023 design values based on a modified version of the "3 x 3" approach for those monitoring sites located in coastal areas. Briefly, in this alternative approach, the EPA eliminated from the design value calculations those modeling data in grid cells that are dominated by water (*i.e.*, more than 50 percent of the area in the grid cell is water) and that do not contain a monitoring site (*i.e.*, if a grid cell is more than 50 percent water but contains an air quality monitor, that cell would remain in the calculation).[44] For each individual monitoring site, the base period 2009-2013 average and maximum design values, 2023 projected average and maximum design values based on both the "3 x 3" approach and the alternative approach affecting coastal sites are available in Excel format in the docket for this action and at *https://www.epa.gov/airmarkets/october-2017-memo-and-information-interstate-transport-sips-2008-ozone-naaqs.*

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[42] "Draft Modeling Guidance for Demonstrating Attainment of Air Quality Goals for Ozone, PM2.5, and Regional Haze." Memorandum from Richard Wayland, Division Director, Air Quality Assessment Division, U.S. EPA Office of Air Quality Planning and Standards, to Regional Air Division Directors, Regions 1−10. December 3, 2014. Available at *https://www3.epa.gov/scram001/guidance/guide/Draft-O3-PM-RH-Modeling_Guidance-2014.pdf.*

[43] The EPA's modeling uses 12km^2 grid cells.

[44] A model grid cell is identified as a "water" cell if more than 50 percent of the grid cell is water based on the 2006 National Land Cover Database. Grid cells that meet this criterion are treated as entirely over water in the WRF modeling used to develop the 2011 meteorology for the EPA's air quality modeling. (*See* Air Quality Modeling Technical Support Document for the Updated 2023 Projected Ozone Design Values. U.S. EPA Office of Air Quality Planning and Standards. June 2018. Document developed to support the Determination Rule, 83 FR 65878 (December 21,2018). Available at *https://www.epa.gov/airmarkets/air-quality-modeling-technical-support-document-updated-2023-projected-ozone-design.*)

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In the Determination Rule, the EPA followed the same approach for identifying receptors based on this modeling as in the CSAPR Update rulemaking process. That is, the EPA considered a combination of modeling projections and monitoring data to identify receptor sites that are projected to have problems attaining or maintaining the NAAQS.[45] Specifically, the EPA identified nonattainment receptors as those monitoring sites with current measured values exceeding the NAAQS that also have projected (*i.e.*, in 2023) average design values exceeding the NAAQS. The EPA also identified maintenance receptors as those monitoring sites with projected maximum design values exceeding the NAAQS. Specifically, maintenance receptors included sites with current measured values below the NAAQS with projected average and maximum design values exceeding the NAAQS and monitoring sites with projected average design values below the NAAQS but with projected maximum design values exceeding the NAAQS.

Pertinent to this action, the EPA's examination in the Determination Rule of the 2023 projected design values for Chautauqua County indicates that this area is not projected to be in nonattainment or have a maintenance problem in 2023 for either the 2008 or the 2015 ozone NAAQS. The EPA's examination of the 2023 projected design values for the NYMA indicates that this area is not projected to be in nonattainment or have a maintenance problem in 2023 for the 2008 ozone NAAQS. However, the modeling indicates that the NYMA is projected to be in nonattainment in 2023 with respect to the 2015 ozone NAAQS.

Because the EPA has already conducted a rulemaking evaluating good neighbor obligations for the 2008 ozone NAAQS under CAA section 110(a)(2)(D)(i)(I) and because, as

[45] *See* 81 FR 74530-74532 (October 26, 2016).

discussed previously, CAA section 126(b) directly incorporates the CAA section 110(a)(2)(D)(i) standard, the EPA believes it is also appropriate to consider the 2023 modeling conducted for the Determination Rule in evaluating whether New York's petition has adequately demonstrated that there will be a downwind air quality problem with respect to the 2008 ozone NAAQS in Chautauqua County and the NYMA. Moreover, the EPA believes it is appropriate to consider the 2023 modeling when evaluating the petition's claims with respect to the 2015 ozone NAAQS because the 2023 ozone season aligns with the attainment year for Moderate ozone nonattainment areas.[46] While the EPA is not reopening the analysis and findings made in the Determination Rule with respect to the 2008 ozone NAAQS in this action, the EPA is evaluating the petition, consistent with the standard of review described in Section IV.A, to determine whether additional information not considered in the Determination Rule should influence the EPA's finding as to whether the sources named in New York's petition emit or would emit in violation of the prohibition of CAA section 110(a)(2)(D)(i)(I).

The EPA notes that the petition asserts that the EPA cannot use its 2023 modeling to support a review of the petition in part because the 2023 analytic year does not fit the timeframe under CAA section 126(c), which requires that compliance with any CAA section 126(b) finding must be met "in no case later than three years after the date" of such finding. However, the EPA's evaluation of air quality in 2023 is a necessary step to determine whether the sources named in New York's petition are in violation of the good neighbor provision in the first instance, and, thus, subject to the provisions of CAA section 126(c). Moreover, the choice of

[46] The 2023 ozone season represents the last full season from which data can be used to determine attainment with the 2015 ozone NAAQS by the August 3, 2024, attainment date for nonattainment areas classified as Moderate.

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2023 as an analytic year does not preclude the implementation of a remedy in an earlier year if the necessary finding is made under CAA section 126(b). If the EPA were to determine based on its analysis of the 2023 projections that the named sources emit or would emit in violation of the good neighbor provision, the EPA could still implement a remedy that complies with the earlier timeline set out under CAA section 126(c). Therefore, the EPA's reasonable choice of 2023 as an analytic year for evaluating New York's petition does not, in and of itself, preclude implementation of a remedy at an earlier date.

The New York petition further raises concerns about the assumptions and results of the EPA's modeling. Specifically, the petition indicates significant concerns with the EPA's expectation that uncontrolled EGUs will greatly reduce their emissions rates in the absence of unit-level enforceable limits and with the EPA's treatment of model cells containing a land/water interface. The petition does not further elaborate on the basis for these concerns, and the EPA, therefore, has no reason to believe that its 2023 modeling is unreliable. Moreover, the EPA already addressed concerns regarding the EGU assumptions in the 2023 modeling in response to comments raised in the Determination Rule. *See* 83 FR 65886-89 (explaining statutory rationale regarding when enforceable emissions limitations are required and responding to comments); 83 FR 65913-15 (responding to comments concerning projections of EGU emissions in 2023). As described earlier in this section, the EPA also addressed concerns regarding the treatment of model cells containing land/water interface in the Determination Rule by calculating design values using two different methodologies. The petition does not provide any new information not already considered by the EPA in the Determination Rule as to these issues and therefore, has no basis to reconsider its conclusions finalized in that action.

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The next two sections discuss the EPA's evaluation of the petition's step 1 analysis regarding Chautauqua County and the NYMA with respect to both the 2008 and 2015 ozone NAAQS. The EPA first evaluates the sufficiency of the analysis provided in the petition for each area and then considers how the 2023 modeling or other pertinent information should inform the EPA's conclusion regarding whether there will be downwind nonattainment or maintenance concerns in each area with respect to each NAAQS.

Chautauqua County

First, for Chautauqua County, New York's petition does not provide sufficient information to demonstrate that there will be a downwind nonattainment or maintenance problem with respect to either the 2008 or the 2015 ozone NAAQS. Although the petition correctly indicates that the EPA previously designated Chautauqua County as Marginal nonattainment under the 2008 ozone NAAQS, the petition did not demonstrate that there will be a future nonattainment or maintenance problem in that area for that NAAQS that must be addressed under the good neighbor provision. While a prior designation of an area as nonattainment may provide useful information for purposes of analyzing interstate transport under the good neighbor provision, designations themselves are not dispositive of whether a downwind area will have an air quality problem in the future.[47] As discussed earlier, the EPA evaluates downwind ozone air quality problems for purposes of step 1 of the four-step interstate transport framework using

[47] The EPA has consistently taken the position that CAA section 110(a)(2)(D) refers to prevention of "nonattainment" in any area in another state, not only in designated nonattainment areas. *See, e.g.*, Clean Air Interstate Rule, 70 FR 25162, 25265 (May 12, 2005); Cross-State Air Pollution Rule, 76 FR 48208, 48211 (Aug. 8, 2011); Final Response to Petition from New Jersey Regarding SO_2 Emissions From the Portland Generating Station, 76 FR 69052 (Nov. 7, 2011) (finding facility in violation of the prohibitions of CAA section 110(a)(2)(D)(i)(I) with respect to the 2010 SO_2 NAAQS prior to issuance of designations for that standard).

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observed and modeled future air quality concentrations for a year that considers the relevant attainment deadlines for the NAAQS and the anticipated compliance timeframe for potential control strategies.[48] New York's section 126(b) petition does not include analyses indicating that Chautauqua County may be violating or have difficulty maintaining the 2008 or 2015 ozone NAAQS either currently or in a relevant future year. In fact, the petition acknowledges that this area attained the NAAQS by the relevant attainment date. The petition also did not present air quality projections indicating that Chautauqua County will not be in attainment or will struggle to maintain the NAAQS in a relevant future year. The petition alleges that the area remains in danger of exceeding the ozone NAAQS but does not provide any evidence to support this assertion. Thus, the petition has not established that emissions from the named sources are linked to a nonattainment or maintenance problem in Chautauqua County.

Additionally, the EPA has air quality data that support an independent analysis of step 1 of the four-step interstate transport framework to assess whether Chautauqua County will have an air quality problem relative to either the 2008 or the 2015 ozone NAAQS. First, the 2015-2017 design value in Chautauqua County is 68 ppb, which is below the level of both the 2008 and 2015 ozone NAAQS.[49] Furthermore, the EPA recently finalized a determination that the Jamestown, New York Marginal nonattainment area (Chautauqua County) has attained the 2008

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[48] 81 FR 74517.

[49] The 2015-2017 design value for Chautauqua County in the "Jamestown-Dunkirk-Fredonia, NY CBSA" at AQS site 360130006 is 68 ppb. Available at *https://www.epa.gov/sites/production/files/2018-07/ozone_designvalues_20152017_final_07_24_18.xlsx.*

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ozone NAAQS.[50] Additionally, the EPA's recent air quality modeling described earlier in this section indicates that the monitor in Chautauqua County is expected to continue to both attain and maintain the standard in 2023, with an average 2023 design value of 58.5 ppb and a maximum 2023 design value of 60.7 ppb.[51] Consequently, due to the facts that the petition has not identified an air quality problem in Chautauqua County for the 2008 or 2015 ozone NAAQS, that the EPA's independent analysis affirms that Chautauqua County is attaining both the 2008 and 2015 ozone NAAQS, and that all available evidence indicates that the monitoring sites will continue to attain and maintain the NAAQS in the future, the EPA is proposing to deny New York's petition regarding Chautauqua County for both the 2008 and the 2015 ozone NAAQS.

New York Metropolitan Area

Second, with respect to the NYMA, the petition does not provide sufficient information to indicate that there will be a future nonattainment or maintenance problem with respect to the 2008 ozone NAAQS. As described in Section III.D of this notice, the petition correctly asserts that the NYMA was designated nonattainment for the 2008 ozone NAAQS and has failed to attain the NAAQS by the attainment deadline. Additionally, the petition points to preliminary 2015-2017 air quality data indicating that some monitoring sites in the NYMA are above the 2008 NAAQS. However, the EPA does not agree that an area's current attainment status alone is sufficient evidence regarding whether there will be a nonattainment or maintenance problem that must be addressed under either the good neighbor provision or CAA section 126. Rather, as

[50] *See* Approval and Promulgation of Air Quality Implementation Plans; New York; Determination of Attainment of the 2008 8-Hour Ozone National Ambient Air Quality Standard for the Jamestown, New York Marginal Nonattainment Area, 83 FR 49492 (October 2, 2018).
[51] *See* 2023 design values for AQS site 360130006 in spreadsheet released with the EPA's March 2018 memorandum. Available at *https://www.epa.gov/sites/production/files/2018-05/updated_2023_modeling_dvs_collective_contributions.xlsx.*

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previously discussed, the EPA evaluates whether there will be downwind nonattainment or maintenance concerns in each area with respect to each NAAQS under the good neighbor provision (and, thus, also under CAA section 126(b)) using observed and modeled future air quality concentrations for a relevant future analytic year.

Further, the EPA has additional information related to potential projected nonattainment or maintenance problems in the NYMA. The EPA's recent air quality projections for 2023, based on the latest available emissions inventory, indicate that all monitoring sites in the NYMA will attain and maintain the 2008 ozone NAAQS. As discussed in Section III.C.2 of this notice, the EPA already determined that the CSAPR Update fully addresses the good neighbor provision requirements for the 2008 ozone NAAQS for all eastern states previously addressed in that rule. This analysis indicates that all remaining receptors for the 2008 ozone NAAQS identified in the CSAPR Update, including those in the NYMA, are expected to attain and maintain that NAAQS in 2023 under step 1 of the four-step interstate transport framework, and, therefore, upwind states have no remaining obligations under the good neighbor provision. New York has not provided any new information that contradicts the EPA's conclusion in the Determination Rule that the NYMA will no longer have an air quality problem in the future. Therefore, the EPA is proposing to deny New York's petition regarding the 2008 ozone NAAQS in the NYMA because New York has not demonstrated that there will be a nonattainment or maintenance problem in the NYMA in a relevant future year and the EPA's own analysis projects that there will be no air quality problems under step 1.

Regarding the 2015 ozone NAAQS, the EPA's projections indicate that the average design value for five of the six monitoring sites in the NYMA and the maximum design values at

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all six monitoring sites in the NYMA will be above the 2015 ozone NAAQS in 2023.[52] Therefore, although New York did not evaluate whether there will be an air quality problem with respect to the 2015 ozone NAAQS in a future year, the EPA's independent analysis of step 1 of the interstate transport framework indicates that the NYMA is projected to have a downwind air quality problem relative to the 2015 NAAQS.

2. The EPA's evaluation of New York's petition considering step 2

With respect to step 2 of the four-step interstate transport framework, the EPA evaluated New York's petition to determine whether there is sufficient information to conclude that the state identified that the upwind states where the sources named in the petition are located are linked to a downwind air quality problem. Because, as described earlier, neither the information in the petition nor existing information available to the EPA indicates there will be downwind nonattainment or maintenance concerns in Chautauqua County with respect to the 2008 and 2015 ozone NAAQS, or in the NYMA with respect to the 2008 ozone NAAQS, the EPA has no basis to find a linkage at step 2 of the four-step framework between the named upwind states and these downwind areas with regard to the respective NAAQS.

With respect to the NYMA for the 2015 ozone NAAQS, existing information available to the EPA supports an assessment that emissions from at least some of the states named in the petition are linked to a downwind air quality problem at step 2. As the following paragraphs explain, the linkages between upwind and downwind states are further informed by an air quality screening threshold.

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[52] The EPA also notes that four of the six monitoring sites are in the state of Connecticut and two monitoring sites are in New York. However, the EPA interprets CAA section 126(b)'s petition authority to be limited to states and political subdivisions seeking to address interstate transport of pollution impacting downwind receptors within their geographical borders. *See* 83 FR 50460.

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Historically, at step 2, the EPA has used an air quality screening threshold to determine whether a state contributes to a downwind air quality problem in amounts that warrant further evaluation as part of a multi-factor analysis in step 3. Upwind states that impact a downwind receptor by less than the screening threshold do not contribute to the downwind air quality problem at step 2. The EPA has therefore previously determined, without conducting any additional analysis, that such states do not significantly contribute to nonattainment or interfere with maintenance of the NAAQS under the good neighbor provision. Upwind states that impact a downwind receptor at or above the threshold are identified as contributing to a downwind air quality problem (*i.e.*, they are said to be "linked" to that downwind receptor). The EPA then proceeds to the multi-factor step 3 analysis to determine if the linked upwind state significantly contributes to nonattainment or interferes with maintenance of the NAAQS at the downwind receptor(s).[53]

In previous federal actions,[54] the EPA's analysis of the sum of contributions from all linked upwind states (*i.e.*, collective contribution) concluded that a screening threshold equivalent to 1 percent of the 1997 and 2008 ozone NAAQS was appropriate at step 2. In an August 31, 2018, memorandum, the EPA presented the results of our analysis of collective

[53] Note that upwind states that are linked to a downwind receptor at step 2 may nevertheless be found to not significantly contribute to nonattainment or interfere with maintenance at the receptor depending on the outcome of the step 3 analysis.
[54] In the Cross-State Air Pollution Rule (CSAPR), the EPA used 0.80 parts per billion (ppb) as the threshold, which is 1 percent of the 1997 ozone NAAQS. 76 FR 48208, 48238 (August 8, 2011). Most recently, in the Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS (CSAPR Update), the EPA used 0.75 ppb as the threshold, which is 1 percent of the 2008 ozone NAAQS. 81 FR 74504, 74518 (October 26, 2016).

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contribution for the 2015 ozone NAAQS[55] using data drawn from the results of the EPA's updated 2023 modeling.[56] This analysis, which followed the thresholds analyses conducted in both the CSAPR and CSAPR Update rulemakings,[57,58] included the evaluation of data pertinent to several potential thresholds (*i.e.*, 1 percent of the 2015 ozone NAAQS or 0.70 ppb, 1 ppb and 2 ppb) that could be applicable to the development of SIP revisions to address the 2015 ozone NAAQS of 70 ppb. The EPA ultimately suggested in this memorandum that a threshold of 1 ppb may be appropriate for states to use to develop SIP revisions addressing the good neighbor provision for the 2015 ozone NAAQS.

In addition to the 2023 modeling used to identify potential downwind air quality problems described in the prior section, the EPA has also performed state-level ozone source apportionment modeling to provide information regarding the expected contribution of statewide, anthropogenic NO_X and VOC emissions in each state to projected 2023 ozone concentrations. If the EPA applies a 1 percent threshold like that used in prior rulemakings (*e.g.*, 0.70 ppb) to the results of the contribution modeling, the EPA's analysis indicates that all nine upwind states named in the petition are linked to an air quality problem in the NYMA for the

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[55] *See* Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards (August 31, 2018).
[56] Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I) (March 2018). *https://www.epa.gov/airmarkets/march-2018-memo-and-supplemental-information-regarding-interstate-transport-sips-2015.*
[57] Air Quality Modeling Technical Support Document for the Final Cross State Air Pollution Rule Update (August 2016). *https://www.epa.gov/airmarkets/air-quality-modeling-technical-support-document-final-cross-state-air-pollution-rule.*
[58] Air Quality Modeling Final Rule Technical Support Document (for the Final Transport Rule now known as CSAPR; June 2011). *https://www.epa.gov/csapr/air-quality-modeling-final-rule-technical-support-document.*

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2015 ozone NAAQS. If the EPA instead applies the alternative 1 ppb threshold, the EPA's analysis indicates that the sources in six (*i.e.*, Maryland, Michigan, Ohio, Pennsylvania, Virginia and West Virginia) of the nine states named in New York's petition are linked to an air quality problem in the NYMA for the 2015 ozone NAAQS, while three states (*i.e.*, Illinois, Indiana and Kentucky) are not.[59] The EPA is not in this action determining which of the potential thresholds described in this section (*i.e.*, 1 percent of the NAAQS (0.70 ppb) or 1 ppb) is appropriate for addressing collective contribution for the 2015 ozone NAAQS for purposes of New York's petition. However, the EPA acknowledges that emissions from at least some of the named upwind states are linked to projected air quality problems in the NYMA for the 2015 ozone NAAQS. Therefore, the EPA will evaluate, in the following section, whether the petition has adequately demonstrated at step 3 of the four-step interstate transport framework that the sources in the upwind states will significantly contribute to nonattainment or interfere with maintenance of the NAAQS.

3. The EPA's evaluation of New York's petition considering Step 3

As described in Section III.C.1 of this notice, once an upwind state is linked to a downwind air quality problem at steps 1 and 2 of the four-step interstate transport framework, the next step is to identify the emissions reductions, if any, needed from particular sources to eliminate the upwind state's significant contribution to nonattainment and interference with

[59] As identified previously in this notice, the EPA's recent modeling included essentially all the EGUs at the facilities named in the New York petition. We say "essentially" because the New York petition identifies sources at the facility, rather than at the unit, level while the EPA looks at unit-level data and includes all fossil-fuel-fired boiler or combustion turbine EGUs with a capacity (electrical output) greater than 25 MW. *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I) (March 27, 2018).

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maintenance of the NAAQS (*i.e.*, step 3 of the four-step interstate transport framework).[60] For the reasons discussed in the following paragraphs, the EPA is proposing to find that material elements in New York's assessment of step 3 are insufficient, such that the EPA cannot conclude that any source or group of sources in any of the named states will significantly contribute to nonattainment or interfere with maintenance in Chautauqua County or the NYMA relative to the 2008 and 2015 ozone NAAQS. Thus, the EPA is proposing to deny the petition as to all named sources in all the named upwind states because New York has not met its burden to demonstrate that the sources emit or would emit in violation of the good neighbor provision with respect to either the 2008 or 2015 ozone NAAQS. We also note that the petition addresses hundreds of sources across nine states. The EPA is taking comment on whether to also deny the petition because the petitioner has not provided justification for the proposition that identification of such a large, undifferentiated number of sources located in numerous upwind states constitutes a "group of stationary sources" within the context of CAA section 126(b). For example, "group of stationary sources" could mean stationary sources within a geographic region, sources identified by a specific North American Industry Classification System (NAICS) Code, sources emitting over a defined threshold and/or any combination of these or other defining characteristics. Although the EPA already has identified a sufficient basis to propose denial of the petition as to Chautauqua County (for the 2008 and 2015 ozone NAAQS) and NYMA (for the 2008 ozone

[60] Contrary to New York's assertion in its petition, identification of a linkage between an upwind state and a downwind receptor does not conclude the determination regarding whether sources in the upwind state will significantly contribute to nonattainment or interfere with maintenance of the NAAQS. The conclusion that a state's emissions met or exceeded the threshold only indicated that further analysis was appropriate to determine *whether* any of the upwind state's emissions met the statutory criteria under the good neighbor provision. *See EME Homer City*, 134 S. Ct. at 1596-97 (noting upwind states are only obliged to eliminate emissions meeting both the step 2 and 3 inquiries).

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NAAQS) at step 1 of the four-step framework, the EPA is also relying on our analysis of step 3 as an additional and independent basis for denial as to the petition's claims for these areas.

As discussed in Section III.C.1 of this notice, within step 3 of the four-step interstate transport framework, the EPA has historically considered several factors to determine whether sources in linked upwind states have emissions that will significantly contribute to nonattainment or interfere with maintenance of the ozone NAAQS. In particular, the EPA has generally considered various control, cost, and air quality factors and data, including: the types of control strategies that can be implemented at sources within the upwind states; the costs of implementing such control strategies; the amount of potential emissions reductions from implementation of control strategies at upwind sources; the potential downwind air quality improvements from such emissions reductions and the severity of the downwind air quality problem (*i.e.*, whether the air quality problem will be resolved through implementation of the emissions reductions). *See* 76 FR 48248-49 and 48254-55; 81 FR 74519; Ozone Transport Policy Analysis Final Rule TSD, p. 3 (Docket ID No. EPA-HQ-OAR-2015-0500). The EPA has typically considered these various cost and air quality factors in a multifactor analysis to identify the appropriate uniform level of emissions controls to apply to sources across a region of upwind states that are collectively linked to downwind air quality problems and, based on the selected level of control, to quantify the amount of emissions (if any) from each upwind state that contribute to nonattainment or

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interfere with maintenance in a downwind area and, thus, should be subject to control.[61] In these prior rules, the EPA has selected the level of control stringency deemed cost-effective when these factors are balanced together. Assessing multiple factors allows the EPA to consider the full range of circumstances and state-specific factors that affect the relationship between upwind emissions and downwind nonattainment and maintenance problems. For example, the EPA's assessment of cost considerations accounts for the existing level of controls at sources in upwind states as well as the potential for, and relative difficulty of, achieving additional emissions reductions.[62] Additionally, assessment of the downwind air quality impacts from the potential upwind emissions reductions is essential to determining whether various levels of potential control stringency would under- or over-control upwind state emissions relative to the identified downwind air quality problems. The Supreme Court has found the EPA's approach to apportioning emissions reduction responsibility among multiple upwind states to be "an efficient and equitable solution to the allocation problem" presented by the good neighbor provision for regional problems like the transport of ozone pollution. *EME Homer City*, 134 S. Ct. at 1607.

As discussed in Section IV.A, the EPA interprets the substantive standard under CAA section 126(b) consistent with its interpretation of the good neighbor provision in CAA section

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[61] For example, in the CSAPR Update (81 FR 74505), the EPA noted that ozone transport occurs on a regional scale, that such transport is responsive to changes in NO_X emissions, and that NO_X emissions reductions from EGUs were effective in reducing 8-hour peak ozone concentrations during the ozone season. Accordingly, the EPA selected a uniform control stringency to apply to states covered by the rule by identifying the emissions reduction potential from EGUs in linked upwind states available at various levels of control stringency represented by cost, assessed how these potential emissions reductions would affect each state's air quality contributions to each receptor, evaluated the total change in air quality at each receptor resulting from the emissions reductions, and evaluated whether the air quality problems at each receptor would be resolved. The EPA applied a similar approach in the CSAPR Final Rule. 76 FR 48248 (August 8, 2011).
[62] *See* CSAPR Final Rule. 76 FR 48248 (August 8, 2011).

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110(a)(2)(D)(i). Accordingly, the EPA believes it could be reasonable to consider the same factors whether evaluating ozone transport in the context of a good neighbor SIP under CAA section 110 or a section 126(b) petition. Thus, the EPA has reviewed New York's petition to determine whether it has provided sufficient information to support a determination based on the same type of cost and air quality factors that the EPA evaluated in past rulemakings addressing regional ozone transport under the good neighbor provision. The EPA notes that it considered these factors in the CSAPR Update and implemented emissions reductions found to be cost-effective at EGUs (including within the upwind states identified in New York's petition) by the 2017 ozone season, but it did not evaluate potential control strategies available on a longer implementation timeframe or at non-EGUs. 81 FR 74521-22. The EPA has not conducted a regional step 3 analysis for any sources with respect to the 2015 ozone NAAQS, but nonetheless believes consideration of the same type of cost and air quality factors could be reasonable for evaluating upwind state obligations under the good neighbor provision for that standard.

The EPA's review of the petition indicates that New York has not sufficiently developed or evaluated the cost and air quality data and factors that the EPA has generally relied on in step 3, has not conducted any sort of multifactor analysis to determine whether cost-effective controls are available at the named sources, and has not provided any alternative analysis that would support a conclusion at step 3 that the named sources will significantly contribute to nonattainment or interfere with maintenance of the NAAQS. The petition, therefore, has not adequately supported the conclusions that the sources named in its petition will significantly contribute to nonattainment or interfere with maintenance of either the 2008 or the 2015 ozone NAAQS. Here, the petition simply names facilities that appear to have larger emissions than other facilities (at least 400 tons of NO_X per year) without supporting why the named facilities

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should make certain reductions. The petition could have included one or more of the following potential analyses to evaluate, compare and identify "significant" emissions from of the named sources, consistent with the EPA's past practice in evaluating regional ozone transport: (i) verifying that the named sources whose emissions are those from the most recent emissions inventory continue to emit NO_X at the same rate or continue to operate;[63] (ii) describing or quantifying potentially available emissions reductions from the named sources (*i.e.*, the control technologies/techniques and the costs of those control technologies/techniques); (iii) describing the downwind air quality impacts of controlling the named sources relative to other sources; or (iv) providing information on the relative cost of the available emissions reductions and whether they are less expensive than other reductions from other sources. In the absence of such analyses, the petition has not demonstrated, based on information available at this time, that the sources named in the petition should be required to make further emissions reductions under the good neighbor provision.

The petition also has not demonstrated how relevant cost and air quality factors should be weighed to determine an appropriate level of control for the named sources. Instead, the petition simply suggests that upwind sources should be subject to a comparable level of control as sources in downwind states (*i.e.*, the $5,000/ton level of control sources in New York are subjected to for purposes of RACT). While information such as costs of controls in the

[63] Such information may be found in the EPA's Enforcement and Compliance Data (ECHO), which is a publicly available database containing information for nearly all point sources in the U. S. Data are typically updated several times a month. The operating status of the point source at the facility level is available. Thus, the operating status of non-EGU point sources can be determined outside of having an up to date NEI version available. This is likely to be accurate for the operating status of EGUs as well.

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downwind area may provide useful data for consideration when evaluating upwind emissions reduction potential, such information is not determinative of the appropriate level of upwind control. Nothing in the text of the good neighbor provision indicates that upwind states are required to implement RACT, which is a requirement that applies to designated nonattainment areas, *see* CAA section 172(c)(1) (nonattainment areas generally), 182(b)(2) (ozone nonattainment areas classified as Moderate), nor does the provision require uniformity of control strategies imposed in both upwind and downwind states. Rather, the provision indicates that states are required to prohibit those emissions which "contribute significantly to nonattainment" or "interfere with maintenance" of the NAAQS in a downwind state, terms that the Supreme Court has found to be ambiguous. *See EME Homer City*, 134 S. Ct. 1584. The EPA has always considered cost under the good neighbor provision as part of a multifactor analysis based on the facts and circumstances of the air quality problem at the time of each evaluation, but the EPA has never set upwind control obligations based solely on the level of controls imposed for purposes of RACT in downwind nonattainment areas, as the petition suggests the EPA do here. The EPA believes that such a multifactor analysis that considers relevant cost and air quality factors is important for any evaluation of a CAA section 126(b) petition regarding interstate transport of ozone (a regional pollutant with contribution from a variety of sources), as the EPA reviews whether the particular sources identified in the petition should be controlled in light of the costs and collective impact of emissions on air quality in the area, including emissions from other anthropogenic sources. The petition fails to conduct any comparable analysis. Review of the named sources in New York's petition provides a starting point for such an analysis but does not complete the analysis or even provide the type of data that would be necessary for the EPA to

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conduct such an analysis to determine whether the named sources emit or would emit in violation of the good neighbor provision.

The petition also suggests that upwind sources should be subject to a comparable level of control as sources in downwind states, in part, because it asserts that, while the CSAPR program provides the legal and technical basis for states to eliminate their significant contributions to excessive ozone pollution, the EPA has failed to implement a full, federal-level remedy to completely address the issue of transported ozone. Instead the EPA issued EGU NO_X ozone season emissions budgets as a partial remedy for interstate transport for the 2008 ozone NAAQS. The petition asserts that, according to the analyses in the CSAPR Update, after application of the rule's NO_X budgets, the EPA's modeling still projected multiple remaining nonattainment and maintenance receptors in the NYMA, including monitoring sites in Fairfield and New Haven Counties in the Connecticut portion of the area, which would continue to project nonattainment in 2017.

While the EPA acknowledged in the CSAPR Update that the FIPs may only be a partial remedy for interstate transport for the 2008 ozone NAAQS, the EPA subsequently promulgated the Determination Rule, in which the EPA concluded that the existing CSAPR Update fully addresses the interstate transport obligations under CAA section 110(a)(2)(D)(i)(I) for the 2008 ozone NAAQS for certain states, including eight of the states named in New York's petition (Illinois, Indiana, Maryland, Michigan, Ohio, Pennsylvania, Virginia and West Virginia), because the downwind air quality problems projected in 2017 would be resolved in 2023. 83 FR 65878 (December 21, 2018). The EPA also approved a SIP from Kentucky which similarly determined that the CSAPR Update FIP would fully satisfy the state's good neighbor obligation with respect to the 2008 ozone NAAQS (83 FR 33730). Together, the EPA found that these

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actions fully address the good neighbor requirements with respect to the 2008 ozone NAAQS for the states named in the petition. For the reasons explained in this section, the petition has failed to demonstrate that it is necessary to implement additional, source-specific, unit-level emissions limits at any of the sources named in the petition to ensure reductions are being achieved under the CSAPR Update.

As discussed earlier, the EPA interprets CAA section 126(b) as placing the burden on the petitioner to demonstrate in the first instance that a finding under the provision is justified. The breadth of New York's petition demonstrates why the EPA's interpretation is particularly reasonable. The petition names over 350 sources from several different source sectors (both EGUs and non-EGUs) in nine different upwind states and asked the EPA to evaluate and implement source-specific emissions limits for each source. While the EPA has air quality modeling information relevant to the step 1 and 2 analyses discussed earlier, this analysis was conducted for separate rulemaking actions and not solely for use in evaluating this petition. The EPA has not already conducted the type of multifactor analysis that would normally be used in step 3 to determine whether such a large group of upwind sources emits or would emit in violation of the good neighbor provision. The EPA also does not currently have information available to independently conduct such an analysis, especially for such a variety of sources. As noted in the Determination Rule (81 FR 65878), the EPA lacks the relevant data to conduct such an analysis for the multiple non-EGU source categories, including those referred to in this petition. Collecting the relevant data and conducting such an analysis independently would require the EPA to invest significant time and resources. As the EPA noted in Section IV.B, the 60-day deadline provided by Congress for action under CAA section 126(b) is evidence that Congress did not intend for the EPA to be required to conduct such detailed independent

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analyses before acting on the petitions, especially where a petition addresses a large number and variety of sources and seeks tailored unit-level remedies, as New York's petition does. While the EPA acknowledges that this task may also be resource-and time-intensive for a petitioner, the EPA nonetheless interprets the timeframe imposed on the EPA in CAA section 126(b) (along with the potentially severe consequences under CAA section 126(c) if a finding is made) as evidence that the burden is on the petitioner in the first instance to demonstrate that the statutory threshold has been met. For the reasons discussed in this section, the petition does not provide the EPA with a sufficient basis to conclude at step 3 that sources in the named states will significantly contribute to nonattainment or interfere with maintenance in New York with respect to either the 2008 or 2015 ozone NAAQS. Therefore, on this basis, the EPA is proposing to deny New York's petition as to all named sources because, in addition to the specific failures described above for steps 1 and 2, the state has also failed to meet its burden to demonstrate at step 3 that the sources emit or would emit in violation of the good neighbor provision.

V. Conclusion

Based on the information discussed in this notice, the EPA is proposing to deny New York's CAA section 126(b) petition. The EPA has described several technical deficiencies with the petition and, therefore, proposes to deny on the basis that New York has not met its burden to demonstrate that the named sources emit or would emit in violation of the good neighbor provision with respect to the 2008 ozone NAAQS or the 2015 ozone NAAQS. For Chautauqua County, the petition does not provide sufficient information to indicate that there will be a downwind air quality problem (either nonattainment or maintenance) with respect to either the 2008 or the 2015 ozone NAAQS. For the NYMA, with respect to the 2008 ozone NAAQS, the petition does not provide sufficient information to indicate that the NYMA should be considered

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a nonattainment or maintenance receptor pursuant to the good neighbor provision. Furthermore, the EPA's own independent analysis of available information indicates that there is not currently nor is there projected to be an air quality problem with respect to either NAAQS in Chautauqua County, and that there is not projected to be any further air quality problem with respect to the 2008 ozone NAAQS in the NYMA. As an additional independent basis for the proposed denial, even if the EPA assumed that the named upwind states were linked to downwind air quality problems in New York at steps 1 and 2 of its interstate transport framework, material elements in the petition's step 3 analysis are insufficient, such that the EPA cannot conclude that any named source or group of sources in any of the named states will significantly contribute to nonattainment or interfere with maintenance in any area in New York with respect to either NAAQS. The EPA requests comment on its proposed denial of New York's CAA section 126(b) petitions, including the bases for the decision described herein.

VI. Judicial Review

Section 307(b)(1) of the CAA indicates which Federal Courts of Appeal have venue for petitions of review of final actions by the EPA. This section provides, in part, that petitions for review must be filed in the Court of Appeals for the District of Columbia Circuit if: (i) the agency action consists of "nationally applicable regulations promulgated, or final action taken, by the Administrator;" or (ii) such action is locally or regionally applicable, but "such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination."

To the extent a court finds this action to be locally or regionally applicable, the EPA proposes to find that this action is based on a determination of "nationwide scope or effect" within the meaning of CAA section 307(b)(1). This action addresses emissions impacts from

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sources located in nine states, which are located in multiple EPA Regions and federal circuits. The proposed action is also based on a common core of factual findings and analyses concerning the transport of pollutants between the different states.

For these reasons, to the extent a court finds this action to be locally or regionally applicable, the Administrator proposes to determine that any final action related to this proposal is based on a determination of nationwide scope or effect for purposes of section 307(b)(1) of the CAA. Thus, pursuant to CAA section 307(b), any petitions for review of any final action related to this proposal must be filed in the Court of Appeals for the District of Columbia Circuit within 60 days from the date such final action is published in the **Federal Register**.

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VII. Statutory Authority

42 U.S.C. 7410, 7426, 7601.

MAY - 6 2019

Dated:

Andrew R. Wheeler,
Administrator.

Message

From: Abboud, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B6F5AF791A1842F1ADCC088CBF9ED3CE-ABBOUD, MIC]
Sent: 5/6/2019 3:17:27 PM
To: Frye, Tony (Robert) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=58c08abdfc1b4129a10456b78e6fc2e1-Frye, Rober]; Brazauskas, Joseph [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=babf7b77aeec4ffeaad446bb35e05b24-Brazauskas,]; Voyles, Travis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4c2b6c0d5ff046e7809f8cab2913bc48-Voyles, Tra]; Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]
CC: Beach, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6b124299bb6f46a39aa5d84519f25d5d-Beach, Chri]; Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]; Schiermeyer, Corry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b0332276a9784253a5a78f39eccf1f29-Schiermeyer]
Subject: FW: Request for comment on allegations raised by Sens. Carper and Whitehouse
Attachments: ATT00001.txt

Just sent them the same response we sent to Politico.

"Bill Wehrum and David Harlow are not aware of billing any hours to Air Permitting Forum. The Air Permitting Forum is not a former client of either Mr. Wehrum or Mr. Harlow. Neither Mr. Wehrum nor Mr. Harlow were involved in the development of the Air Permitting Forum's May 15th comments. Since Mr. Wehrum and Mr. Harlow started at EPA they have both been recused from all particular matters where DTE is a party." – EPA spokesman

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From: Sean Reilly <sreilly@eenews.net>
Sent: Monday, May 6, 2019 11:12 AM
To: Press <Press@epa.gov>
Subject: Request for comment on allegations raised by Sens. Carper and Whitehouse

Hi folks:

Let me know if you have any comment on the senators' allegations (referenced in the news release below) that in this case Mr. Wehrum "appears to have cut and pasted text verbatim from documents provided by his former clients."

My deadline is 12:30 this afternoon.

Thanks,
Sean

Sean Reilly
Reporter

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FOR RELEASE: May 6, 2019
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Jill Farquharson (Carper) 202-224-8832
Rich Davidson (Whitehouse) 202-228-6291

Carper, Whitehouse Discover Verbatim Text Pulled from Second Industry Hunton Client in EPA's 'DTE Memo'

Senators continue urging the EPA Inspector General to initiate an ethics investigation of Bill Wehrum and David Harlow's potential conflicts of interest with their former Hunton Andrews Kurth clients

WASHINGTON, D.C. – Today, U.S. Senators Tom Carper (D-Del.), top Democrat on the Senate Environment and Public Works (EPW) Committee, and Sheldon Whitehouse (D-R.I.), top Democrat on the EPW Subcommittee on Clean Air and Nuclear Safety, again urged the Environmental Protection Agency (EPA) Inspector General (IG) to open an ethics investigation of EPA Assistant Administrator for Air and Radiation Bill Wehrum and his deputy chief, David Harlow, after uncovering more evidence of potential conflicts of interest and questionable industry influence. This time, the conflicts involve the Air Permitting Forum, a second industry coalition housed at Hunton Andrews Kurth that is comprised of several companies for which Wehrum and Harlow have signed ethics recusals.

Both Wehrum and Harlow were previously lawyers at Hunton Andrews Kurth, and since arriving at EPA, both have signed recusals to avoid potential conflicts of interest related to former clients. Members of Congress recently raised concerns about their involvement with the Utility Air Regulatory Group (UARG), a coalition of some of the country's largest coal-fired utility companies that is represented by Hunton Andrews Kurth and has advocated for countless Clean Air Act positions that would weaken or eliminate regulations for power plant emissions—dismissing everything from the threat of climate change to the harm posed by power plant mercury emissions.

The senators uncovered more evidence of potential conflicts of interest involving yet another organization represented by Hunton Andrews Kurth, the Air Permitting Forum ("the Forum"). Like UARG, the Forum consists of individual companies – and while Wehrum and his chief deputy David Harlow are recused from work associated with some of the companies that identified in 2015 as members of the Forum, neither Wehrum nor Harlow recused themselves from work related to the Forum itself.

In conducting congressional oversight, Senators Carper and Whitehouse discovered language submitted to EPA by the Forum that was subsequently used verbatim, without citation, as part of EPA's novel argument justifying the "DTE Memo" – a memorandum issued by former EPA Administrator Scott Pruitt that disavowed EPA's position in litigation against DTE Energy Company and undercut EPA's enforcement of air pollution requirements under its New Source Review program.

"**While it's promising that so many utilities are abandoning UARG as EPA's ethically questionable practices have come to light, clearly there is a systemic issue at the EPA Office of Air and Radiation. There appears to be no end to the sham associations housed at Bill Wehrum and David Harlow's former law firm that now have a direct line to power,"** said the senators. **"These groups are just another avenue for industry to surreptitiously exert its influence over EPA. We reiterate our call for the EPA Inspector General to thoroughly investigate whether Wehrum and Harlow violated ethics rules in their dealings with former clients**."

Background

The Ever-Elusive "Air Permitting Forum"

The Air Permitting Forum is an unincorporated "coalition" housed at Hunton Andrews Kurth LLP [Hunton] since 2016. In public comments submitted to an EPA Clean Air Act docket in 2016, the Forum described itself as, "a coalition of manufacturing companies focused on stationary source implementation issues under the Clean Air Act." In its 2018 comments on the Clean Power Plan repeal, it describes its members as entities that "are subject to numerous CAA regulatory requirements . . . ."

Like UARG, the Forum does not have any apparent physical address, or even a public website. In the headers for the Forum's public comments, the organization has listed individuals serving in various roles for the Forum, such as an "Executive Director," "Director," "Counsel," and "Manager"—but each of these individuals are lawyers employed by Hunton, and their contact information directs to a Hunton email address.

While no formal list of the Forum's members appears to be readily available, in May 2015, several individuals associated with the Forum met with EPA staff about Clean Air Act rulemakings. As required, EPA staff docketed summaries of those in the meeting, including a list of attendees representing the Forum. In attendance were three attorneys (all of whom would later join Hunton), employees of four companies from which Wehrum or Harlow are recused (Chevron, ExxonMobil, Georgia-Pacific, General Electric) and employees of five additional companies that are not former clients of Wehrum or Harlow (Fiat Chrysler, Ford, General Motors, Toyota, Shell, International Paper). Significantly, Wehrum and Harlow do not appear recused from matters involving the Forum itself.

Concerns of Senators Carper and Whitehouse About Language submitted by the Air Permitting Forum found in EPA's "DTE Memo"

As was noted in a supplemental letter to the Inspector General last month, EPA's plainly inaccurate reading of a 1992 Federal Register notice in the DTE memo is not one that EPA appears to have ever enunciated or recognized prior to the DTE memo. EPA reversed its long-standing New Source Review policy in part based on a unique interpretation of a decades-old EPA preamble to a Clean Air Act rule, which Wehrum and Harlow's law firm previously deployed in litigation against the EPA. It is now clear from the senators' oversight efforts

that EPA did not merely adopt the legal posture of Wehrum and Harlow's former clients – EPA adopted their exact words.

In April 2017, former EPA Administrator Scott Pruitt requested public "input on regulations that may be appropriate for repeal, replacement, or modification." In response to that request, the Air Permitting Forum submitted comments stating:

> "While historically EPA has recognized that a source must exercise judgment to exclude increases for which the project is not the 'predominant cause,' more recent EPA actions reflect the view that all emission increases are presumed to be caused by the change." (p. 12)

Nearly identical language appears in EPA's December 7, 2017 memo entitled "New Source Review Preconstruction Permitting Requirements: Enforceability and Use of the Actual-to-Projected-Actual Applicability Test in Determining Major Modification Applicability," the memo that disavowed EPA's position in litigation against DTE Energy Company, another client of Hunton, and of Mr. Harlow's himself:

> "Because increased emissions may be caused by multiple factors, the EPA has recognized that the source must exercise judgment to exclude increases for which the project is not the 'predominant cause." (p. 7)

This is not the first time Bill Wehrum appears to have cut and pasted text verbatim from documents provided by his former clients. In 2004, while Wehrum was serving as chief counsel in the Bush Administration's Office of Air and Radiation, EPA proposed mercury emissions rules that also used verbatim text from clients of Wehrum's former law firm.

###

Message

From: Woods, Clint [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=BC65010F5C2E48F4BC2AA050DB50D198-WOODS, CLIN]
Sent: 3/6/2019 2:36:41 PM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beadda2affa44-Harlow, Dav]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]
Subject: Fwd: FYI and for review to distribute to OAR: notes from today's EPW subcommittee hearing on Clean Air Act and federalism
Attachments: EPW Clean Air Subcmte hearing on federalism states role 3-5-19.docx; ATT00001.htm

Read out from OCIR on Senate hearing yesterday

Begin forwarded message:

> **From:** "Frye, Tony (Robert)" <frye.robert@epa.gov>
> **Date:** March 6, 2019 at 9:26:23 AM EST
> **To:** "Woods, Clint" <woods.clint@epa.gov>
> **Subject: FW: FYI and for review to distribute to OAR: notes from today's EPW subcommittee hearing on Clean Air Act and federalism**
>
> fyi
>
> **Tony Frye**
> Special Advisor
> Office of Congressional Affairs
> Environmental Protection Agency
> Cell: 202.603.3225
>
> ---
>
> **From:** Davis, Matthew
> **Sent:** Tuesday, March 5, 2019 5:17 PM
> **To:** Frye, Tony (Robert) <frye.robert@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>
> **Cc:** Haman, Patricia <Haman.Patricia@epa.gov>; Richardson, RobinH <Richardson.RobinH@epa.gov>; Thundiyil, Karen <Thundiyil.Karen@epa.gov>; Barbery, Andrea <Barbery.Andrea@epa.gov>; Bowles, Jack <Bowles.Jack@epa.gov>
> **Subject:** FYI and for review to distribute to OAR: notes from today's EPW subcommittee hearing on Clean Air Act and federalism
>
> Hi Tony and Troy,
> I hope you guys are doing well! I wanted to share with you notes I took from today's EPW subcommittee hearing on the Clean Air Act and cooperative federalism. Witnesses were from ND, AR, and CA. Take a look and let me know if you're okay with my sharing with interested staff in OAR.
> Thanks,

Matthew

Matthew Davis
Office of Congressional Affairs
U.S. Environmental Protection Agency
1200 Pennsylvania Ave, NW, MC-1301A
Washington, DC 20460
(202) 564-1267

Message

From: Abboud, Michael [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B6F5AF791A1842F1ADCC088CBF9ED3CE-ABBOUD, MIC]
Sent: 3/18/2019 8:01:09 PM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Beach, Christopher [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=6b124299bb6f46a39aa5d84519f25d5d-Beach, Chri]; Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]
Subject: FW: (BFW) EPA Vowed to Keep Waiving Refineries From Biofuel Quotas: Cruz

Deliberative Process / Ex. 5

From: Jennifer A. Dlouhy (BLOOMBERG/ NEWSROOM:) <jdlouhy1@bloomberg.net>
Sent: Monday, March 18, 2019 3:38 PM
To: Press <Press@epa.gov>
Subject: (BFW) EPA Vowed to Keep Waiving Refineries From Biofuel Quotas: Cruz

Good afternoon, EPA press.

Sen. Ted Cruz today told a conference of refiners and petrochemical makers that he'd helped secure concessions from EPA on SREs -- that they will continue to be approved -- and reallocation (that waived volumes won't be redistributed). A summary is attached.

We of course wrote at the time -- days before Administrator Wheeler's confirmation -- that a handful of Republican senators had sent a letter warning their confirmation votes hinged on the issue and that they got unspecified assurances after the resulting conversations with Administrator Wheeler and EPA staff that spurred them to stop holding up the confirmation vote.

Does EPA have any comment on this?

Thanks,
Jen.

Jennifer A. Dlouhy
jdlouhy1@bloomberg.net / jendlouhyenergy@gmail.com
reporterjen@protonmail.com
Desk Ex. 6
Cell/Text/Signal: Ex. 6
Twitter: @jendlouhyhc
Stories: http://bloom.bg/23Crpvk

BFW 03/18 16:23 *CRUZ SPEAKS TO AFPM REFINER CONFERENCE IN SAN ANTONIO
BFW 03/18 16:23 *SEN. TED CRUZ SAYS HE WON CONCESSIONS ON BIOFUEL MANDATES
BFW 03/18 16:22 *EPA VOWED TO KEEP WAIVING REFINERIES FROM BIOFUEL QUOTAS: CRUZ

EPA Vowed to Keep Waiving Refineries From Biofuel Quotas: Cruz
2019-03-18 16:28:28.948 GMT

By Jennifer A. Dlouhy
(Bloomberg) -- Sen. Ted Cruz says he won "explicit promises" from EPA Administrator Andrew Wheeler to keep granting small refineries waivers from U.S. biofuel mandates, without retroactively reallocating those quotas to non-exempted facilities.
* Cruz, R-Texas, says he secured those commitments after joining with other Republican senators to slow down Wheeler's nomination to lead the EPA
** NOTE: Cruz and other senators warned Wheeler last month their confirmation votes hinged on his commitment to lowering regulatory burden for oil refiners forced to use biofuels, prompting a flurry of talks with agency officials on issue before the EPA chief's confirmation
* Cruz says EPA committed not to "backtrack" on "vital regulatory relief" by refusing to grant small refinery exemptions; agency also said it would not retroactively reallocate previously exempted volumes
* "We're going to hold the EPA and the administrator to those commitments," Cruz says at American Fuel and Petrochemical Manufacturers association meeting in San Antonio
** "Those were public commitments that were necessary for his confirmation, and we fully expect him to follow through"
* EPA just waived five more refineries from 2017 biofuel blending quotas, the first such exemptions granted since former EPA Administrator Scott Pruitt departed last July
* Earlier: Trump Looks to 'Thread the Needle' With Farms, Oil on Biofuels

To contact the reporter on this story:
Jennifer A. Dlouhy in Washington at jdlouhy1@bloomberg.net
To contact the editors responsible for this story:
Jon Morgan at jmorgan97@bloomberg.net
Kasia Klimasinska

Message

From: Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]
Sent: 5/6/2019 11:40:20 AM
To: Abboud, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6f5af791a1842f1adcc088cbf9ed3ce-Abboud, Mic]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]
CC: Brazauskas, Joseph [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=babf7b77aeec4ffeaad446bb35e05b24-Brazauskas,]; Voyles, Travis [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4c2b6c0d5ff046e7809f8cab2913bc48-Voyles, Tra]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Frye, Tony (Robert) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=58c08abdfc1b4129a10456b78e6fc2e1-Frye, Rober]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Schiermeyer, Corry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b0332276a9784253a5a78f39eccf1f29-Schiermeyer]; Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]
Subject: RE: Pruitt EPA memo appears to draw from Hunton-run industry group

Michael,

Thank you. I appreciate your work last week getting the Agency's statement on this put together.

David S. Harlow
Senior Counsel
Immediate Office of the Assistant Administrator
Office of Air and Radiation, USEPA
WJC-N Room 5409K
1200 Pennsylvania Avenue NW
Washington, DC 20460
202-564-1233
Harlow.David@epa.gov

From: Abboud, Michael
Sent: Monday, May 6, 2019 7:22 AM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>; Harlow, David <harlow.david@epa.gov>
Cc: Brazauskas, Joseph <brazauskas.joseph@epa.gov>; Voyles, Travis <Voyles.Travis@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Lyons, Troy <lyons.troy@epa.gov>; Frye, Tony (Robert) <frye.robert@epa.gov>; Konkus, John <konkus.john@epa.gov>; Schiermeyer, Corry <schiermeyer.corry@epa.gov>; Hewitt, James <hewitt.james@epa.gov>
Subject: Fwd: Pruitt EPA memo appears to draw from Hunton-run industry group

FYI.

Sent from my iPhone

Begin forwarded message:

From: "POLITICO Pro Energy" <politicoemail@politicopro.com>
Date: May 6, 2019 at 5:02:57 AM EDT
To: <abboud.michael@epa.gov>
Subject: Pruitt EPA memo appears to draw from Hunton-run industry group
Reply-To: "POLITICO subscriptions" <reply-fe951c707166027d73-1173707_HTML-820854487-1376319-0@politicoemail.com>

Pruitt EPA memo appears to draw from Hunton-run industry group

By Alex Guillén

05/06/2019 05:01 AM EDT

An EPA memo that altered a key agency enforcement policy included language nearly identical to regulatory comments submitted by an industry group housed at the former law firm of EPA air chief Bill Wehrum.

The language was initially submitted to EPA in publicly available comments from the group, called the Air Permitting Forum. EPA said Wehrum was not involved in writing the group's submission, but the similarities between what the Forum suggested and EPA's 2017 policy shift further highlight the relationship between key EPA appointees and influential industry groups.

Sens. Tom Carper (D-Del.) and Sheldon Whitehouse (D-R.I.), whose offices discovered the language similarities, said the connection bolsters their March request for EPA's inspector general to review the relationship between Wehrum and his adviser David Harlow with their former firm Hunton Andrews Kurth.

"There appears to be no end to the sham associations housed at Bill Wehrum and David Harlow's former law firm that now have a direct line to power," Carper and Whitehouse said in a statement.

The language similarities between the EPA and the Air Permitting Forum, which keeps its membership private, do not indicate illegal behavior. But they do suggest EPA was influenced by the organization operated by some of the same Hunton attorneys involved with the Utility Air Regulatory Group, a former client of Wehrum.

Carper and Whitehouse have previously alleged that Wehrum wrongly weighed in on parts of the memo, which linked EPA's policy shift to the enforcement case against utility DTE, a UARG member and a former direct client of Wehrum's. In March they asked EPA's inspector general to review the matter.

Now the senators say they found another way that Hunton appears to have influenced the DTE memo — though Wehrum does not appear to be directly involved.

The policy issue in the memo addresses how companies planning to install major upgrades at power plants or other pollution-producing facilities calculate the emissions impact of those upgrades. Those calculations determine whether the source must go through time-consuming and costly air permitting under EPA's New Source Review program.

The December 2017 memo issued by then-Administrator Scott Pruitt a few weeks after Wehrum was confirmed as EPA's air chief showed a significant shift in agency policy. In it, Pruitt declared that EPA would stop "second guessing" companies' emissions projections, reversing a policy that had led to a major enforcement case against DTE Energy over upgrades it made to a power plant without permitting.

Carper and Whitehouse have criticized Pruitt's 2017 memo for relying on an "arcane" part of a 1992 regulation that says companies can exclude likely increases in future pollution from their emission forecasts if the "predominant cause" of the increase is from demand growth, not the plant's upgrades.

"Because increased emissions may be caused by multiple factors, the EPA has recognized that the source must exercise judgment to exclude increases for which the project is not the 'predominant cause,'" Pruitt wrote in his 2017 memo, referencing the 1992 rule.

That passage contains wording nearly identical to language submitted to EPA by the Air Permitting Forum seven months earlier in response to an EPA request for suggestions on regulations to revise.

"While historically EPA has recognized that a source must exercise judgment to exclude increases for which the project is not the 'predominant cause,' more recent EPA actions reflect the view that all emission increases are presumed to be caused by the change," the Forum wrote. Its comment went on to call for an NSR policy change similar to what EPA later implemented.

EPA spokesperson Michael Abboud said neither Wehrum nor Harlow ever represented the Forum, and they did not help the Forum write the May 2017 regulatory comments.

"Since Mr. Wehrum and Mr. Harlow started at EPA they have both been recused from all particular matters where DTE is a party," he said. Wehrum told the Washington Post in February that he reviewed a redacted version of the memo that blacked out the portion directly dealing with the particulars of DTE's case but left broader policy language intact.

EPA declined to confirm whether the language was pulled purposely from the Forum comment or whether it considered attributing the passage to the group.

Although Wehrum did not work with the Forum, four of his former corporate clients appear to have been members.

Chevron, Exxon Mobil, General Electric and Koch Industries' Georgia-Pacific all sent executives to 2015 meetings between EPA and "members of the Air Permitting Forum," according to agency records. Other companies identified in those records as Forum members include Shell, Toyota, GM, Ford, Fiat Chrysler and International Paper — all of which have business before EPA's air office.

Though Wehrum does not appear to have been directly involved, the shared language in the Forum and EPA documents highlights a "systemic issue" at EPA's air office, Carper and Whitehouse said in a statement.

Groups such as UARG or the Forum "are just another avenue for industry to surreptitiously exert its influence over EPA," they said. "We reiterate our call for the EPA Inspector General to thoroughly investigate whether Wehrum and Harlow violated ethics rules in their dealings with former clients."

A spokesperson said acting Inspector General Charles Sheehan is still reviewing the senators' initial March request to look into Wehrum's previous legal work.

James Goodwin, a senior policy analyst at the Center for Progressive Reform, said EPA's use of Forum language in a guidance document is questionable because EPA took no public input or scrutiny before issuing it. With a formal notice-and-comment rulemaking, the public would have an opportunity to review and rebut the language.

"The fact that Pruitt lifted this language confirms he was not acting with the integrity of our regulatory system in mind and that was deeply unethical," Goodwin wrote in an email.

A spokesperson for Hunton said that the Forum's regulatory comment was submitted "in response to EPA's request for public comment, so the Agency could receive and consider the views of stakeholders prior to taking any final action." The spokesperson declined to give details about the Forum's membership.

The group appears to represent a broad range of manufacturing interests, oil and gas producers, automakers and other sectors subject to EPA rules for stationary sources that are not power plants. It is run by some of the same attorneys involved with UARG, including Shannon Broome and Chuck Knauss.

Wehrum's relationship with UARG has been under increased scrutiny in recent months after POLITICO reported on the group's list of coal-heavy utility members and their pledges to pay UARG $8.2 million for its work in 2017. House Democrats have launched a probe into whether UARG members paid hefty fees using ratepayer money, and at least 11 utilities have left that group, with several saying they are moving away from coal and thus the sort of work UARG does.

The Air Permitting Forum appears to have been involved in significantly fewer regulatory lawsuits than UARG, according to court records. After helping defend EPA actions against environmentalist lawsuits during the George W. Bush administration, it largely avoided new litigation during the Obama years.

However, it did sue the Obama EPA twice in the administration's final months. One of those lawsuits, challenging a "regional consistency" rule, was rejected by the court in June 2018. The other lawsuit, over a refrigerant management rule, has been on hold as EPA reconsiders some the Obama-era requirements.

Under the Trump administration, the Forum has resumed helping defend EPA in half a dozen lawsuits filed by green groups. Some involve broad policy changes, such as EPA's memo reversing the "once in, always in" policy. Others are more specific, such as a lawsuit challenging emissions rules for pulp mills.

To view online:
https://subscriber.politicopro.com/energy/article/2019/05/pruitt-epa-memo-appears-to-draw-from-hunton-run-industry-group-1407522

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This email was sent to abboud.michael@epa.gov by: POLITICO, LLC 1000 Wilson Blvd. Arlington, VA, 22209, USA

Message

From: Schwab, Justin [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=EED0F609C0944CC2BBDB05DF3A10AADB-SCHWAB, JUS]
Sent: 5/6/2019 12:43:54 AM
To: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]
CC: Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]
Subject: RE: ozone designations draft brief
Attachments: EDIT Clean_Wisconsin_answering_brief.doc

Attached please find my redline/bubbles, which I also am passing back to ARLO. The remand discussion is last in the brief, I've flagged a few phrases for OAR's particular consideration.

From: Schwab, Justin
Sent: Friday, May 3, 2019 11:42 AM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>; Woods, Clint <woods.Clint@epa.gov>
Cc: Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Mutz, John <mutz.john@epa.gov>
Subject: ozone designations draft brief

Due to be filed next Friday 5/10. This reflects Gautam's comments. Matt and I will be reviewing this weekend. We should all discuss Monday evening.

Fletcher, please print a copy for Matt's weekend reading.

Message

From: Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]
Sent: 2/25/2019 3:29:59 PM
To: Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]
CC: McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]
Subject: RE: Lawmakers' request for OIG investigation of Bill Wehrum and David Harlow

Yes, sounds fine.

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

From: Konkus, John
Sent: Monday, February 25, 2019 10:03 AM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>; Harlow, David <harlow.david@epa.gov>
Cc: McFaul, Jessica <mcfaul.jessica@epa.gov>
Subject: FW: Lawmakers' request for OIG investigation of Bill Wehrum and David Harlow

Bill: Are you okay with us using this as a response to inquiries:

Deliberative Process / Ex. 5

From: Sean Reilly <sreilly@eenews.net>
Sent: Monday, February 25, 2019 9:03 AM
To: Press <Press@epa.gov>
Subject: Lawmakers' request for OIG investigation of Bill Wehrum and David Harlow

Hi folks:

Do Mr. Wehrum and Mr. Harlow have any comment on the allegations of ethical impropriety raised in this letter? My deadline is 11:30 this morning.

Thanks,
Sean

Sean Reilly
Reporter
E&E News
Ex. 6 (Cell)
(Desk)
Skype: Sreilly_69
sreilly@eenews.net
Twitter: @SeanatGreenwire

E&E NEWS
122 C Street, NW, Suite 722, Washington, DC 20001
www.eenews.net • www.eenews.tv
EnergyWire, ClimateWire, E&E Daily, Greenwire, E&ENews PM

Message

From: Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]
Sent: 5/2/2019 12:34:16 PM
To: Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]
CC: Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Schwab, Justin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=eed0f609c0944cc2bbdb05df3a10aadb-Schwab, Jus]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Abboud, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b6f5af791a1842f1adcc088cbf9ed3ce-Abboud, Mic]; McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]; Schiermeyer, Corry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b0332276a9784253a5a78f39eccf1f29-Schiermeyer]; Hewitt, James [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=41b19dd598d340bb8032923d902d4bd1-Hewitt, Jam]
Subject: Re: Wehrum/Air Forum comments

John - We previously had a statement to the he effect of: I have been recused from particulars matters involving DTE from the day I returned to EPA. I have strictly followed that recusal.

Deliberative Process / Ex. 5

Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

On May 1, 2019, at 10:02 PM, Konkus, John <konkus.john@epa.gov> wrote:

> Thank you Bill.
>
> John Konkus
> Environmental Protection Agency
> Deputy Associate Administrator for Public Affairs
> Mobile: Ex. 6
>
> On May 1, 2019, at 9:44 PM, Wehrum, Bill <Wehrum.Bill@epa.gov> wrote:
>
> > John - I would be comfortable conveying some or all of the following:

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Happy to provide more input if helpful or needed.

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

On May 1, 2019, at 4:15 PM, Konkus, John <konkus.john@epa.gov> wrote:

> I understand Bill is out of the office this week, however, we have this inquiry below that needs to be addressed by 5pm tomorrow...
>
> ---
>
> **From:** Alex Guillen <aguillen@politico.com>
> **Sent:** Wednesday, May 1, 2019 4:13 PM
> **To:** Press <Press@epa.gov>
> **Subject:** Wehrum/Air Forum comments
>
> Good afternoon,
>
> I'm writing about a discovery by Sens. Tom Carper and Sheldon Whitehouse that part of the December 2017 NSR memo contains a passage very close to language submitted to EPA through a public comment process months earlier by the Air Permitting Forum. The Forum, like UARG, is run by attorneys at Hunton, Bill Wehrum's prior firm. I have specific questions below and would welcome any other comment from EPA. My deadline is **5 p.m. on Thursday, May 2**.
>
> Here are the passages in question. I've attached the full documents as well.
>
> From the December 2017 Pruitt memo: "Because increased emissions may be caused by multiple factors, the **EPA has recognized that the source must exercise judgement to exclude increases for which the project is not the 'predominant cause.'"**
>
> From the May 2017 Air Permitting Forum comments: "While historically **EPA has recognized that a source must exercise judgment to exclude increases for which the project is not the 'predominant cause,'** more recent EPA actions reflect the view that all emission increases are presumed to be caused by the change."
>
> **My questions:**
>
> Did Wehrum ever work for the Air Permitting Forum or any of its member companies while at Hunton?

Did he review the Forum's May 2017 regulatory comments to EPA while at Hunton?

Did Wehrum review the part of the December 2017 DTE memo discussing the exclusion issue (contained in the third paragraph on page 7)? If so, was he aware the language was virtually identical to that submitted by the Forum? (That part of the memo does not directly reference DTE, and EPA has said Wehrum consulted on the non-DTE portions of the memo.)

The memo-writing process took several months. When did EPA add the sentence in question to the memo? Did EPA purposely adopt the Forum's language? If so, why did the agency decide not to cite the source of the passage?

Did David Harlow ever work for the Forum at Hunton? Was he ever involved with the Forum's May 2017 regulatory comment? Did he review that portion of the December 2017 DTE memo, or any portion of the memo at all?

Thank you,

Alex Guillen | Energy Reporter | **POLITICO**PRO
1000 Wilson Boulevard, 8th Floor | Arlington, VA 22209
Phone: Ex. 6
Email: aguillen@politico.com | Twitter: @alexcguillen
| Website: www.POLITICOPro.com

<Air Permitting Forum comment.pdf>

<policy_memo.12.7.17.pdf>

Message

From: Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]
Sent: 2/27/2019 10:59:02 PM
To: Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]
CC: McFaul, Jessica [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51b00479cd7446e4aa7743028c0d8d91-McFaul, Jes]
Subject: RE: following up, regarding my story on Bill Wehrum

When do they plan to publish?

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

From: Konkus, John
Sent: Tuesday, February 26, 2019 10:33 AM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>
Cc: McFaul, Jessica <mcfaul.jessica@epa.gov>
Subject: RE: following up, regarding my story on Bill Wehrum

FYI this article did not run in print today.

From: Wehrum, Bill
Sent: Monday, February 25, 2019 9:23 AM
To: Konkus, John <konkus.john@epa.gov>
Cc: McFaul, Jessica <mcfaul.jessica@epa.gov>
Subject: RE: following up, regarding my story on Bill Wehrum

Thanks John.

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

From: Konkus, John
Sent: Monday, February 25, 2019 9:13 AM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>
Cc: McFaul, Jessica <mcfaul.jessica@epa.gov>
Subject: Re: following up, regarding my story on Bill Wehrum

She is going to correct this and add in the facts about the redacted memo. That will be included in the printer version.

On Feb 25, 2019, at 7:44 AM, Wehrum, Bill <Wehrum.Bill@epa.gov> wrote:

The article looks pretty fair. The one point I think needs to be sharpened is the comment that I reviewed the DTE memo before it was issued. She fails to note that the draft I reviewed was heavily redacted to take out any reference to DTE and the particulars of DTE's issue.

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

From: Konkus, John
Sent: Sunday, February 24, 2019 4:26 PM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>
Cc: McFaul, Jessica <mcfaul.jessica@epa.gov>
Subject: Fwd: following up, regarding my story on Bill Wehrum

This gives us tomorrow to debunk anything we have to before it runs in print.

Begin forwarded message:

> **From:** "Eilperin, Juliet" <Juliet.Eilperin@washpost.com>
> **Date:** February 24, 2019 at 4:07:33 PM EST
> **To:** "Konkus, John" <konkus.john@epa.gov>
> **Cc:** "McFaul, Jessica" <mcfaul.jessica@epa.gov>
> **Subject: Re: following up, regarding my story on Bill Wehrum**
>
> Dear John and Jessica,
> The story on Bill will post at 6 am tomorrow. And then it will run in print the next day.
> Best,
> Juliet
>
> On Feb 24, 2019, at 11:31 AM, Eilperin, Juliet <Juliet.Eilperin@washpost.com> wrote:
>
>> Yes, I'm sorry, Henry Darwin went. I don't think I need a statement, given that—I'm not going to mention Henry by name.
>>
>> And I will just let you about the timing of the posting of the other story.
>> Thanks, Juliet
>>
>> ---
>>
>> **From:** Konkus, John <konkus.john@epa.gov>
>> **Sent:** Sunday, February 24, 2019 11:24 AM
>> **To:** Eilperin, Juliet <Juliet.Eilperin@washpost.com>
>> **Cc:** McFaul, Jessica <mcfaul.jessica@epa.gov>
>> **Subject:** Re: following up, regarding my story on Bill Wehrum

He was not at that meeting on Friday.

On Feb 23, 2019, at 7:51 PM, Eilperin, Juliet <Juliet.Eilperin@washpost.com> wrote:

> And just FYI, I think it will post around midday. But I will let you know if that changes.
>
> Incidentally, I am writing about the NSC meeting that took place Friday, which Acting Administrator Wheeler attended. Please don't share this with any other outlets, but the upshot of the meeting is that the WH will assemble a group of federal scientists to look at the climate science the government has produced. So if you'd like to comment on that, let me know. If not, I can just put down a no comment. Alternatively, the story should post tomorrow morning, and you could always send a comment after you see the initial piece. I wanted to mention it since I will say that the acting administrator attended the meeting.
>
> Best,
> Juliet
>
> On Feb 23, 2019, at 6:13 PM, Konkus, John <konkus.john@epa.gov> wrote:
>
>> One more reminder that the UARG meeting is governed by the Trump pledge because it was a meeting requested by former clients. The rules were clear at the time - Bill could take such meetings as long as the topic was a matter of general applicability and he complied with the 1 plus 4 rule.
>>
>> The Hunton event was different because the invitation came from Hunton and not a former client. And, the clear purpose was business development, which he obviously could not support.
>>
>> On Feb 23, 2019, at 6:09 PM, Eilperin, Juliet <Juliet.Eilperin@washpost.com> wrote:
>>
>>> Sounds good. Thanks. I imagine the story will post sometime tomorrow, but I'm not sure when. I will let you

both know as soon as I've gotten a heads up.
Juliet

On Feb 23, 2019, at 5:56 PM, Konkus, John <konkus.john@epa.gov> wrote:

> The paraphrase looks like the better way to go from our perspective. The point Bill was trying to make is that the utility group invited him, not Hunton. UARG and Hunton are not one and the same.
>
> On Feb 23, 2019, at 4:33 PM, Eilperin, Juliet <Juliet.Eilperin@washpost.com> wrote:

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jessica@epa.gov>

Cc: 'Konkus, John' <konkus.john@epa.gov>

Subject: RE: following up, regarding mystory on Bill Wehrum

Hey there, two updates. One, I am still working with the editors sons

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Subject: RE: following up, regarding mystory

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Dear Jessica, Thanks for this. I was hoping

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Jessica<mcfaul.jessica@epa.gov>**Sent:** Friday, February 2

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2. **QUESTION:** Bill said that the was "recused f

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3. **QUESTION:** As far as I can tell,

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RESPONSE: Mr. Schwab's role was to confirm in an email response

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6. **QUESTION:** On Aug. 18, 2017, there is another

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7. **QUESTION:** Did Bill raise the issue of changing the agency's

interpretation of pre-construction requirements under NS

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From: "Eilperin, Juliet" <juliet.eilperin@washpost.com

>
Date: February 21, 2019 at 10:56:56 AM EST **To:** "Konkus, John" <

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Message

From: Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]
Sent: 1/19/2019 12:34:14 AM
To: Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Shaw, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31ca1476a7674825a131cb2c0d6c88c8-BShaw03]; Lubetsky, Jonathan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e125d09a658e48119789ccae5712b4a5-JLUBETSK]
Subject: Fwd: ALL AAW QFRs - Program Office Designated
Attachments: 2019.01.18 - PROGRAM OFFICE DESIGNATED - ALL QFRs Wheeler 01.16.2019.docx; ATT00001.htm

FYI

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

Begin forwarded message:

From: "Frye, Tony (Robert)" <frye.robert@epa.gov>
Date: January 18, 2019 at 7:22:05 PM EST
To: "Richardson, RobinH" <Richardson.RobinH@epa.gov>, "Leopold, Matt (OGC)" <Leopold.Matt@epa.gov>, "Ross, David P" <ross.davidp@epa.gov>, "Voyles, Travis" <Voyles.Travis@epa.gov>, "Molina, Michael" <molina.michael@epa.gov>, "Wildeman, Anna" <wildeman.anna@epa.gov>, "Woods, Clint" <woods.clint@epa.gov>, "Bolen, Brittany" <bolen.brittany@epa.gov>, "Wooden-Aguilar, Helena" <Wooden-Aguilar.Helena@epa.gov>, "Benevento, Douglas" <benevento.douglas@epa.gov>, "Thomas, Deb" <thomas.debrah@epa.gov>, "Grantham, Nancy" <Grantham.Nancy@epa.gov>, "Kime, Robin" <Kime.Robin@epa.gov>, "Stanich, Ted" <Stanich.Ted@epa.gov>, "Wehrum, Bill" <Wehrum.Bill@epa.gov>, "Shaw, Betsy" <Shaw.Betsy@epa.gov>, "Stoker, Michael B." <stoker.michael@epa.gov>, "Jordan, Deborah" <Jordan.Deborah@epa.gov>, "Lubetsky, Jonathan" <Lubetsky.Jonathan@epa.gov>, "Greaves, Holly" <greaves.holly@epa.gov>, "Bloom, David" <Bloom.David@epa.gov>, "Terris, Carol" <Terris.Carol@epa.gov>, "Hladick, Christopher" <hladick.christopher@epa.gov>, "Pirzadeh, Michelle" <Pirzadeh.Michelle@epa.gov>, "Dunn, Alexandra" <dunn.alexandra@epa.gov>, "Beck, Nancy" <Beck.Nancy@epa.gov>, "Kadeli, Lek" <Kadeli.Lek@epa.gov>, "Bertrand, Charlotte" <Bertrand.Charlotte@epa.gov>, "Lopez, Peter" <lopez.peter@epa.gov>, "Mugdan, Walter" <Mugdan.Walter@epa.gov>, "Manna, Richard" <Manna.Richard@epa.gov>, "Bodine, Susan" <bodine.susan@epa.gov>, "Traylor, Patrick" <traylor.patrick@epa.gov>, "Starfield, Lawrence" <Starfield.Lawrence@epa.gov>, "Badalamente, Mark" <Badalamente.Mark@epa.gov>, "Emmerson, Caroline" <Emmerson.Caroline@epa.gov>, "Fotouhi, David" <Fotouhi.David@epa.gov>, "Packard, Elise" <Packard.Elise@epa.gov>, "Gulliford, Jim" <gulliford.jim@epa.gov>, "Chu, Ed" <Chu.Ed@epa.gov>, "Sheehan, Charles" <Sheehan.Charles@epa.gov>, "McIntosh, Chad" <mcintosh.chad@epa.gov>, "Nishida, Jane" <Nishida.Jane@epa.gov>, "Wright, Peter" <wright.peter@epa.gov>, "Cook, Steven" <cook.steven@epa.gov>, "Breen, Barry" <Breen.Barry@epa.gov>, "Simon, Nigel"

<Simon.Nigel@epa.gov>, "Benjamin, Kent" <Benjamin.Kent@epa.gov>, "Szaro, Deb" <Szaro.Deb@epa.gov>, "Servidio, Cosmo" <Servidio.Cosmo@epa.gov>, "Rodrigues, Cecil" <rodrigues.cecil@epa.gov>, "Fields, Jenifer" <fields.jenifer@epa.gov>, "Vizian, Donna" <Vizian.Donna@epa.gov>, "Lapierre, Kenneth" <Lapierre.Kenneth@epa.gov>, "Idsal, Anne" <idsal.anne@epa.gov>, "Cooper, Marian" <Cooper.Marian@epa.gov>, "Hitchens, Lynnann" <hitchens.lynnann@epa.gov>, "Gray, David" <gray.david@epa.gov>, "Dunlap, David" <dunlap.david@epa.gov>, "Orme-Zavaleta, Jennifer" <Orme-Zavaleta.Jennifer@epa.gov>, "Robbins, Chris" <Robbins.Chris@epa.gov>, "Blackburn, Elizabeth" <Blackburn.Elizabeth@epa.gov>, "Walker, Mary" <walker.mary@epa.gov>, "Forsgren, Lee" <Forsgren.Lee@epa.gov>, "Best-Wong, Benita" <Best-Wong.Benita@epa.gov>, "Spraul, Greg" <Spraul.Greg@epa.gov>, "Stepp, Cathy" <stepp.cathy@epa.gov>, "Thiede, Kurt" <thiede.kurt@epa.gov>, "Lyons, Troy" <lyons.troy@epa.gov>, "Baptist, Erik" <Baptist.Erik@epa.gov>, "Darwin, Henry" <darwin.henry@epa.gov>, "Palich, Christian" <palich.christian@epa.gov>, "Rodrick, Christian" <rodrick.christian@epa.gov>, "Ringel, Aaron" <ringel.aaron@epa.gov>, "Schwab, Justin" <Schwab.Justin@epa.gov>, "Konkus, John" <konkus.john@epa.gov>, "Abboud, Michael" <abboud.michael@epa.gov>, "Block, Molly" <block.molly@epa.gov>, "Hewitt, James" <hewitt.james@epa.gov>, "Beach, Christopher" <beach.christopher@epa.gov>, "Levine, Carolyn" <Levine.Carolyn@epa.gov>, "Kaiser, Sven-Erik" <Kaiser.Sven-Erik@epa.gov>, "Moody, Christina" <Moody.Christina@epa.gov>, "Haman, Patricia" <Haman.Patricia@epa.gov>, "Jackson, Ryan" <jackson.ryan@epa.gov>
Subject: ALL AAW QFRs - Program Office Designated

Hello All – Attached, please find the full list of questions from SEPW from Acting-Administrator Wheeler's hearing. Please work with your teams to provide draft responses and only send your final responses to Troy, Christian Palich, and me to make sure we are able to maintain an accurate master document.

For reference, here is the timeline we are following:

Please note that QFR responses will be due to OCIR by 10:00am on Wednesday, January 23.

Tentative QFR Timeline

Deliberative Process / Ex. 5

Deliberative Process / Ex. 5

Thank you again for your efforts.

Best,
Tony

Tony Frye
Special Advisor
Office of Congressional Affairs
Environmental Protection Agency
Cell: Personal Matters / Ex. 6

U.S. Senate Committee on Environment and Public Works
Hearing entitled, "Hearing on the Nomination of Andrew Wheeler to be Administrator of the Environmental Protection Agency"
January 16, 2019
Questions for the Record for Mr. Andrew Wheeler

Ranking Member Carper:

Your responses to questions for the record from the Committee's August 1, 2018 hearing left much to be desired. Many questions did not receive specific responses, which is troubling given that the Committee did not receive your answers for four months. Please ensure that your responses to these questions are not similarly deficient. Moreover, in light of the Agency's insistence on moving forward quickly with your confirmation hearing and the use of furloughed staff to prepare you for it, please do not attempt to justify a failure to provide any of the responses or requested materials on the shutdown, absent a concurrent request that further action on your nomination be postponed until after the EPA re-opens.

Questions on the Trump Administration's Proposed Fuel Economy and Greenhouse Gas Tailpipe Standards Rollback

I asked you a number of questions on this topic following your testimony at the August 1, 2018 hearing. You failed to provide specific responses. Please do so now promptly, and answer the additional questions, especially in light of your statement at the hearing that "We know that we need to finalize our [fuel economy and greenhouse gas tailpipe standards] proposal by March 30."

1. ***OAR:*** During the development of the "Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-26 Passenger Cars and Light Trucks", EPA officials met with OMB and NHTSA officials to convey their concerns about the proposal several times. They left numerous documents with OMB officials that are now part of the rulemaking docket[1].These documents indicate that there are significant problems with the model that was used by NHTSA to develop the proposal to freeze fuel economy and greenhouse gas tailpipe standards from 2020-26. One such example is a document titled "Email_5_-_Email_from_William_Charmley_to_Chandana_Achanta_-_June_18,_2018%20(1).pdf". This 122 page long document includes a number of PowerPoint presentations EPA made to OMB and NHTSA staff along with additional documentation and analysis.

    a. The document notes that "EPA analysis to date shows significant and fundamental flaws in CAFE model (both the CAFE version and the "GHG version")…. These flaws make the CAFE model unusable in current form for policy analysis and for assessing the appropriate level of the CAFE or GHG standards." Do you believe that each of these flaws were fully remedied before the rules were proposed? If so, please list the specific remedies that addressed each of EPA's concerns. If not, will you ensure that all necessary technical input

[1] https://www.regulations.gov/document?D=EPA-HQ-OAR-2018-0283-0453

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from EPA's Office of Transportation and Air Quality is incorporated into the final rule in order to ensure that the rule cannot be successfully over-turned in court on grounds that the model on which it is based is significantly or fundamentally flawed?

b. One of the main contributors to the NHTSA conclusions that the augural standards would cause thousands of additional deaths is NHTSA's "consumer choice" module, which asserts that making the fleet more fuel efficient will cause people to keep their less safe, older vehicles for longer, and that this will mean there are more unsafe vehicles on the road (because newer vehicles have more safety technologies). The document states that EPA believed this NHTSA model was flawed, because it predicts an additional 26 million non-existent vehicles would be in the 2016 fleet and 46 million additional non-existent vehicles in the 2030 fleet. For context, this would represent a 15-20% increase in registered vehicles. The document also notes that this problem appeared to be un-remedied several months after EPA first raised it. Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

c. The document also found that NHTSA's consumer choice model predicts an unexplained, and apparently fictitious 10-15% increase in vehicle miles traveled (VMT). Specifically, the model somehow predicts people will drive an extra 239 billion miles in 2016 and 302 billion more miles in 2030. The increased deaths associated with higher efficiency standards in the NHTSA model are highly correlated to VMT (more driving equals more accidents equals more deaths). It would thus seem that EPA believes that the NHTSA safety numbers are predicated on an entirely fictitious driving scenario. Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

d. The document also notes that NHTSA does not accurately model the manner in which automobile manufacturers trade credits as part of their compliance strategies, observing that NHTSA does not assume that compliance credits are traded between manufacturers' car and truck fleets (which is the manufacturers' current practice), and that this has the effect of over-estimating compliance costs. Was this modeling problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

e. The document observes that NHTSA's model overestimates the costs of particular technologies compared to their actual costs and use in the real world. The model also reportedly selects the most expensive technology packages to meet the standards, which overestimates the most cost-effective ways to do so by $1-2,000 per vehicle. Do you agree that manufacturers would be more likely to select the most cost-effective set of technologies with which to meet standards, rather than

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the least cost-effective set of technologies? If not, why not? Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

f. The document stated that the NHTSA model omitted the benefits of some fuel-efficient technologies entirely, while others were erroneously inputted into the model. For example, 'start/stop' technology, a technology that causes engines to automatically shut off while vehicles are stopped in traffic (and thus use no fuel), is estimated to have a negative effect on fuel-efficiency, which is simply not plausible. Were these problems remedied in the proposed rule? If so, how? If not, will you ensure that they are remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

g. The document observed that NHTSA's model appears to add vehicle miles travelled in unexplained ways. For example, it observed that as many as 25 billion more miles of driving were predicted in a given year, even when the rebound effect (a measure of how much extra driving consumers are expected to do as a result of having more fuel-efficient vehicles) was set to 0 percent. The document observes that NHTSA's model actually predicts less driving when the rebound effect was set to 20 percent (meaning 20% more driving by consumers in more fuel-efficient vehicles would have been included in the model) than when it was kept to 0 percent. This suggests that NHTSA's model is incapable of predicting anything accurately, separate and apart from whether one agrees with its policy premise. Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

h. The document states that NHTSA's "Proposed standards are detrimental to safety, rather than beneficial" once NHTSA's modeling errors were corrected. In fact, EPA found that the proposed standards result in "an average increase of 17 fatalities per year in VYs 2036-2045" relative to the current standards. Do you agree with this conclusion? If not, why not?

i. The document states that the NHTSA model projects that the current standards result in 8,000 fewer new automobiles sold annually in CYs 2021-2032, but that the used vehicle fleet would grow by 512,000 vehicles per year. That means that for every new fuel-efficient vehicle that consumers do not purchase (because NHTSA predicts their costs will be too high), somehow an additional 60 used vehicles will remain in the fleet. Do you agree that this scenario is simply implausible in the real world, as the EPA document points out? If not, why not? Was this problem remedied in the proposed rule? If so, how? If not, will you ensure that it is remedied before the EPA rule is finalized in order to avoid litigation that will result in the rule being overturned on grounds that the model on which it is based is significantly or fundamentally flawed?

j. In draft comments submitted to OMB on June 29, EPA commented that more than 90% of the net benefits for which the proposed rule to freeze fuel economy and

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greenhouse gas tailpipe standards takes credit are in fact benefits associated with vehicles manufactured prior to 2021. EPA attributed this to NHTSA's flawed consumer choice model, and questioned whether these could technically be attributable to the actual post-2021 rule. What would the net benefits of the preferred alternative— and for each of the other seven alternatives included in the NPRM — be if the agencies were to compare the costs to the benefits of cars manufactured within the MY 2021-29 cohort timeframe?

2. ***OMS/OAR:*** Please provide a list of all EPA employees or contractors who have been working on the fuel economy and greenhouse gas tailpipe standards rule since December 29, 2018, including a description of what precisely each individual has been doing and how much time they have spent on each task.

3. ***OAR:*** I have been informed that on July 20, 2018, prior to the finalization and public release of the proposed roll-back, you received a briefing from EPA's career staff that consisted of about 20 slides (and a 3-page appendix) and lasted about an hour. The briefing described EPA career staff's significant concerns with the proposed rule, including their concern that the proposal "does not include EPA's technical assessment or input," that NHTSA failed to incorporate any of EPA's technical analysis or feedback, and that it was clear to EPA that "NHTSA doesn't want to engage EPA on technical aspects of NHTSA's analysis." That briefing also included the staff's request that EPA's logo be removed from the technical analysis document used to support the proposed rollback in light of the fact that no EPA input was included in it.

    a. Please provide me with a copy of the briefing slides.
    b. You have repeatedly asserted in both public and private meetings that the proposed rollback will save lives. For example, in your January 16 nominations hearing you stated that "Under our proposal, we have submitted that there will be 1,000 lives saved a year under our CAFE proposal. I neglected to mention that earlier, but I think that is very important for everyone to understand." Please provide me with a detailed explanation for why you have seemingly discounted the views and technical input of EPA's career staff when making these statements.
    c. In your testimony, you also stated that the proposed rollback "would decrease the cost of a new car by $2,300." It is my understanding that the briefing you received on July 20, 2018 included a chart showing that NHTSA's per vehicle cost estimates associated with the current standards were more than double EPA's estimates. Please provide me with a detailed explanation for why you have seemingly discounted the views and technical input of EPA's career staff when making these statements.

Questions on EPA's Proposed Mercury and Air Toxics Standards Rollback

4. ***OAR:*** In EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards, it states that, "while there are unquantifiable HAP [hazardous air pollutant] benefits and significant monetized PM co-benefits associated with MATS, the

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Administrator has concluded that the identification of these benefits is not sufficient, in light of the gross imbalance of monetized costs and HAP benefits, to support a finding that is appropriate and necessary to regulate EGUs under CAA section 112."[2]

a. The proposed revision state that, "with the MATS rule in place, the estimated inhalation cancer risk to the individual most exposed to actual emissions from the source category is 9-in-1 million." Such a risk is higher than the 1-in-1 million threshold provided in the Clean Air Act as the threshold to delist a source category. Do any documents in the proposal docket estimate what the inhalation cancer risk would be if the MATS rule was rescinded?
b. The Clean Air Act does not permit the delisting of any source category with emissions that pose a cancer risk greater than 1 in 1,000,000 to the most exposed individual, regardless of the cost. Why does the proposal fail to regulate EGUs under Section 112 which pose a far greater cancer risk?
c. Given that we already know the inhalation cancer risk is greater than 1 in 1,000,000, and EPA's proposal asserts that this is "not sufficient" to determine it is "appropriate and necessary" to regulate EGUs under Section 112, what would in EPA's view be a "sufficient" cancer risk to deem that it is "appropriate and necessary" to regulate?
d. How did the agency weigh "unquantifiable HAP benefits" in the proposal's formal cost-benefit analysis to ensure benefits that could not be monetized are not underrepresented?
e. Please provide detailed information on all the unquantifiable HAP benefits that were considered in this proposal and explain why EPA could not ascribe a dollar value to these benefits.

5. ***OAR:*** If a benefit cannot be monetized, do you consider it to be worth less than a benefit that can be monetized? If so, why? If not, why not?

6. ***OAR:*** When the 1990 Clean Air Act Amendments were written – which included the current version of Section 112(n)(1)(A) of the Clean Air Act - there were few, if any, quantifiable data available on cancer risks of air toxics and no quantifiable data whatsoever available for non-cancer risks, like birth and neurological defects.[3] Despite the inability to put a dollar amount on the benefits of reducing these air toxics, Congress still found it necessary to require EPA to pursue robust regulations to address major sources of air toxics emissions. At the same time, Congress indicated that it was well aware of the limitations of relying exclusively on cost-benefit analysis when assessing air toxics. In the Senate Committee report on S. 1630 in the 101st Congress, it states, "[T]he public health consequences of substances which express their toxic potential only after long periods of chronic exposure will not be given sufficient weight in the regulatory process when they must be balanced

[2]EPA, "National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units -- Reconsideration of Supplemental Finding and Residual Risk and Technology Review" (Dec 2018), https://www.epa.gov/sites/production/files/2018-12/documents/frnmatsfindingandrtr_12_2018wdisc.pdf; Hereafter called EPA Revised Supplemental Finding Proposal, 2018.

[3] Legislative History 1990 Clean Air Act Amendments, H.Rept 101-490 Part 1, 101st Congress (1989-1990).

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against the present day costs of pollution control and its other economic consequences.[4]" Yet, in EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards, the agency based the decision to reverse its "appropriate and necessary" finding solely on a formal cost-benefit analysis that does not incorporate this clear Congressional intent.

a. Where in the 1990 CAA's legislative history does EPA believe that Congress required the agency to conduct a formal cost-benefit analysis to make an "appropriate and necessary" determination? Please provide a citation to the relevant portion of the legislative history.
b. Do you agree with Congress' assessment that the benefits of reducing air toxics are not given significant weight in a formal cost-benefit analysis because it is difficult, and sometimes impossible, to put a dollar value on the benefits of reducing air toxic emissions? If not, why not? If so, why?

7. ***OAR:*** As mentioned in the previous question, EPA appears to be ignoring Congressional intent when it comes to making "appropriate and necessary" determinations by ignoring the real benefits of reducing exposure to hazardous air pollution, especially those benefits that cannot be monetized. Since EPA is failing to follow the Clean Air Act's requirements, please state what you consider to be a safe level of exposure to a carcinogenic hazardous air pollutant.

8. ***OAR:*** As mentioned in question #6, EPA appears to be ignoring congressional intent when it comes to making "appropriate and necessary" determinations by ignoring the real benefits of reducing exposure to hazardous air pollution, especially those benefits that cannot be monetized. Since EPA is failing to follow the Clean Air Act, please state what you consider to be a safe level of exposure to an acid gas hazardous air pollutant.

9. ***OAR:*** As mentioned in question #6, EPA appears to be ignoring congressional intent when it comes to making "appropriate and necessary" determinations" by ignoring the real benefits of reducing exposure to hazardous air pollution, especially those benefits that cannot be monetized. Since EPA is failing to follow the Clean Air Act, please state what you consider to be a safe level of exposure to a heavy metal hazardous air pollutant?

10. ***OAR:*** EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards claims the proposal does not, "present a disproportionate risk to children.[5]"

a. What analysis in the docket shows that rescinding or weakening MATS is not a threat to children's health?
b. What analysis in the docket shows that the benefits of reducing mercury exposure to children from our nation's largest source of mercury is "insufficient" to trigger

[4] Legislative History 1990 Clean Air Act Amendments, S.Rept 101-228, 101st Congress (1989-1990).
[5] EPA Revised Supplemental Finding Proposal, 2018.

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a determination that it is "appropriate and necessary" to regulate EGUs under Section 112 of the Clean Air Act?

11. ***OAR:*** Are there currently any EGUs that are not compliant with the Mercury and Air Toxics Standards rule? If so please provide me with a list.

12. ***OAR:*** Is EPA aware of any blackouts, brownouts or extreme retail consumer price spikes that occurred as a direct result of the Mercury and Air Toxics Standards rule? If so, please share the analysis that demonstrates the connection of these events with the MATS rule.

13. ***OAR:*** Prior to implementation of the MATS rule, there were more mercury fish consumption advisories in this country than any other chemical or pollutant combined.

    a. Are there still fish consumption advisories for mercury in this country? If so, please provide copies.
    b. How many states currently have one or more fish consumption advisories for mercury?
    c. Do you believe consuming mercury-laden fish poses any risk to pregnant women or their unborn babies in this country? If so, why? If so, what is the risk?
    d. In the docket for the 2018 proposed revision to the Supplemental Cost Finding for MATS, what data does EPA provide that led you to believe there was not a "sufficient" mercury risk from power plants to deem it "appropriate and necessary" to regulate EGUs under Section 112 of the Clean Air Act?

14. ***OAR:*** In 2011, were coal-fired EGUs the largest source of unregulated mercury pollution in this country? If yes, please include by what order of magnitude coal plants were the largest source over other sources.

15. ***OAR:*** In EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards, the agency is, "soliciting comment, however, on whether the EPA has the authority or obligation to delist EGUs from CAA section 112(c) and rescind (or to rescind without delisting)" the Mercury and Air Toxics Standards (MATS) Rule.[6]

    a. If the agency decides to delist "EGUs from CAA section 112(c)," which I do not believe it has the authority to do, would EPA have the authority to issue mercury and air toxics standards for the utility sector under Section 112 of the Clean Air Act, and would utilities legally be required to run control technologies to meet MATS?
    b. If the agency rescinds the MATS rule, which I do not believe EPA has the authority to do, would that not only weaken the standards, but remove them altogether? If MATS is removed, would utilities have any legal responsibility to run currently-implemented control technology used to comply with MATS?

[6] EPA Revised Supplemental Finding Proposal, 2018.

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16. ***OAR:*** During your confirmation hearing, several members expressed concerns about EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards. During an exchange on this issue with Senator Cardin, you stated that, "on MATS, I don't think you can roll back a regulation that has been fully implemented. And the MATS requirements for the pollution control equipment has been fully implemented. And I don't believe, I honestly do not believe that that equipment will be turned off or removed under our proposal."

    a. If you "don't think you can roll back a regulation that has been fully implemented" as you stated to Senator Cardin during your confirmation hearing, then why is your agency requesting comment on EPA's authority and potential obligation to delist EGUs from Section 112 of the Clean Air Act and/or rescind the MATS rule?
    b. Have the courts ever vacated an EPA rule that has been implemented? If yes, which rules, and did it ever result in control technology being uninstalled or turned off?
    c. Within the revised Supplemental Cost Finding for the Mercury and Air Toxics Standards 2018 proposal, EPA cites that, "[A]gencies have inherent authority to reconsider past decisions and to revise, replace, or repeal a decision to the extent permitted by law and supported by a reasoned explanation." 7 When you stated to Senator Cardin that you, "don't think you can roll back a regulation that has been fully implemented," did that mean you didn't think the agency could do so legally and if so, how does that sync with the argument made in the proposal that the agency has inherent authority to reconsider past decisions?
    d. If the courts end up vacating the MATS rule because of EPA's decision to finalize its proposal finding that it is no longer "appropriate and necessary" to regulate under Section 112, would you still stand by your comments to Senator Cardin that you "honestly do not believe that that equipment will be turned off or removed?" If so, legally speaking, what would require utilities to run control technologies currently being used to meet MATS if the MATS rule were to be vacated or rescinded?
    e. Please list all the section 126 petitions your agency has during this Administration in which petitioners have expressed concerns that a utility upstream is turning off or not optimizing installed air control technologies and as a result is creating ozone transport concerns for downwind states. Please identify which of these petitions were rejected since you became Acting Administrator.
    f. Are you aware of any situation since you have served at EPA under this Administration, when a utility has turned off or not fully optimized their installed controls? If so, please list and explain all situations.

17. ***OP/OAR:*** OMB has also long recognized the limitations of a formal cost-benefit analysis, especially when benefits cannot be fully monetized. OMB's 2003 Circular A-4 requires EPA and other agencies to conduct a complete regulatory analysis that "includes a discussion of non-quantified as well as quantified benefits and costs. When there are important nonmonetary values at stake, you should also identify them in your analysis so policymakers

[7] EPA Revised Supplemental Finding Proposal, 2018.

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can compare them with the monetary benefits and costs."[8] In addition, OMB clarifies in Circular A-4 that all ancillary benefits should be counted in any rule analysis, directing agencies to "look beyond the direct benefits and direct costs of your rulemaking and consider any important ancillary benefits and countervailing risks. An ancillary benefit is a favorable impact of the rule that is typically unrelated or secondary to the statutory purpose of the rulemaking." OMB also states when an agency, "can estimate the monetary value of some but not all of the ancillary benefits of a regulation, but cannot assign a monetary value to the primary measure of effectiveness, you should subtract the monetary estimate of the ancillary benefits from the gross cost estimate to yield an estimated net cost."[9] Why does EPA believe it not necessary to review all the benefits – including ancillary co-benefits – in EPA's analysis (which is based only in part on the regulatory impact analysis prepared for OMB and responsive to its guidance), that is being used to make its "appropriate and necessary" determination under Section 112(n)(1)(A)? Why are those benefits required to be counted in any other benefit assessment analysis for any other regulatory action, but not proposed to be included here?

18. ***OAR:*** In determining it was no longer "appropriate and necessary" to regulate utilities under Section 112 in EPA's 2018 proposed revision to the Supplemental Cost Finding for the Mercury and Air Toxics Standards –

    a. Did EPA use any data beyond what was included in the 2011 MATS Regulatory Impact Analysis? If so, please describe it. If not, why not?
    b. Did EPA consider updating the costs estimate to reflect the actual installation and operating costs required to meet MATS or consider accounting for costs already incurred by the utility industry? If so, why was this information not included in the proposal? If not, why not?
    c. Did EPA consider updating the benefits data to include the best available science? If not, why not? If so, why was this information not included in the proposal?

19. ***OAR:*** Under the George W. Bush Administration, EPA stated that "benefits calculations relying solely on IQ decrements are likely to underestimate the benefits to cognitive functioning of reduced mercury exposures."[10] Do you agree with this statement? If so, why? If not, why not?

20. ***OAR:*** In a recent residual risk proposal, EPA has stated "any reduction in HAP emissions would be expected to provide health benefits in the form of improved air quality and less exposure to potentially harmful chemicals."[11] Does this statement apply to reductions in HAPs for all Section 112 listed source categories, including EGUs? If not, why not? If so, why?
    Please list all the acid gases, heavy metals, and other hazardous air pollutants (by name) that are emitted by electric generating units that contribute to particulate matter pollution. If

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[8] 68 FR 58366
[9] 68 FR 58366
[10] EPA, Regulatory Impact Analysis of the Clean Air Mercury Rule, (March 2005) https://www3.epa.gov/airtoxics/utility/ria_final.pdf.
[11] 83 FR 46262

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reducing these HAPs also reduces particulate matter, wouldn't reducing particulate matter be a direct benefit of the regulation, not a co-benefit?

21. ***OAR:*** In 2003, then-EPA Assistant Administrator for Air and Radiation Jeff Holmstead testified before the House Energy and Commerce Committee on the difficulty of quantifying the benefits of reducing air toxic emissions from power plants, saying: "These estimates [for Clear Skies] do not include the many additional benefits that cannot currently be monetized but are likely to be significant, such as human health benefits from reduced risk of mercury emissions, and ecological benefits from improvements in the health of our forests, lakes, and coastal waters."[12] Is this also true for MATS?

22. ***OAR:*** EPA has tried to bridge the air toxic data gaps to better monetize benefits through various stakeholder workshops over the years. The latest workshop in 2009 concluded that monetizing all air toxic benefits is still not possible, making a cost benefit analysis "difficult" to do for any action involving hazardous air pollutants. Finding that, "[F]or many chemicals on the [Clean Air Act hazardous air pollutant] list, the information on potential health effects is so limited that quantitative benefits analysis is not feasible…This lack of information is in contrast to the criteria air pollutants for which there is extensive human exposure or epidemiological data on the health effects at ambient-exposure levels…characterizing the health effects of air toxics at ambient levels can be subject to a very high level of uncertainty; thus, using these health effects in economic benefits assessment is difficult."[13] Do you agree that monetizing all air toxic benefits is still not possible and "using these health effects in economic benefits assessment is difficult" if not impossible? If not, why not? If so, why?

23. ***OAR/OCSPP:*** Do you agree with the American Academy of Pediatrics, which has stated there is no safe level of mercury exposure for children in the womb? If not, why not?

24. ***OAR:*** According to EPA's 2018 Supplemental Cost Finding proposal, EGUs emitted 29 tons of mercury annually prior to the implementation of the rule. What populations were most susceptible to mercury exposure and is mercury easily removed from the environment once it gets into the environment?

25. ***OAR:*** Are there states in which utilities may no longer seek rate recovery from public utility commissions for the capital costs and/or operating costs of air pollution control equipment for which there is not a legal requirement to operate that equipment? If so, please identify the states.

26. ***OAR:*** Are there states in which public utility commission rules or practices allow ratepayers or any third parties to mount challenges to power plant company rate recovery from public

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[12] Statement of EPA Assistant Administrator Jeff Holmstead, Hearing Before the U.S. House of Representatives Energy and Air Quality Subcommittee of the House Energy and Commerce Committee entitled "The Clear Skies Initiative: A Multipollutant Approach to the Clean Air Act," (July 8, 2003), https://archive.epa.gov/ocir/hearings/testimony/108_2003_2004/web/pdf/2003_0708_jh.pdf.

[13] Gwinn et al, "Meeting Report: Estimating the Benefits of Reducing Hazardous Air Pollutants—Summary of 2009 Workshop and Future Considerations," Environ Health Perspectives. 2011 Jan; 119(1): 125–130, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3018491/.

utility commissions for the capital costs and/or operating costs of air pollution control equipment for which there is not a legal requirement to operate that equipment? If so, please identify the states.

27. ***OAR:*** Can you identify all third parties who urged the agency, or OMB, not to propose to rescind the "appropriate and necessary" finding or the MATS rule? In particular, please identify the positions urged by the Edison Electric Institute; Utility Air Regulatory Group; the American Public Power Association; the National Rural Electric Cooperative Association; the Clean Energy Group; any electric utility company; any state or local air pollution control agency or their associations; any public health or environmental non-governmental organization. Which groups supported the proposed changes?

Questions on the Kigali Treaty

28. ***OAR/OITA:*** I have learned that counter to your implication in our private meeting, there have in fact been interagency meetings in which Bill Wehrum and other EPA officials participated to discuss the Kigali Amendment to the Montreal Protocol. Moreover, I have also been informed that EPA officials have stated at these meetings that EPA does not wish the treaty to be submitted for ratification.

    a. Please list the dates of and attendees at each such meeting.
    b. Do you share Mr. Wehrum's opinion that the Treaty should not be submitted to the United States Senate for ratification, or authorize him to convey this view at the meetings that have occurred?

29. ***OAR/OITA:*** U.S. businesses across the entire HFC supply chain are transitioning away from HFCs and taking advantage of new global markets. The US industries that use or produce fluorocarbons directly employ more than 593,000 Americans with an annual payroll in excess of $34 billion, and sales of $206 billion. The overall contribution of the fluorocarbon industries network to US economic activity is more than 2.5 million jobs and goods and services valued at more than $630 billion annually. As I mentioned at the hearing - American industry, both users and producers of HFCs, strongly support the ratification of the Kigali Amendment to the Montreal Protocol because it encourages domestic manufacturing of next generation alternatives and technologies and provides businesses a predictable transition away from HFCs. Various studies clearly show that ratification of Kigali will benefit American manufacturing jobs with little to no impact to consumers and an obvious benefit to the environment.

    a. Do you support the ratification of the Kigali Amendment to the Montreal Protocol? If not, why not?
    b. What will you commit to do to help facilitate the transition away from HFCs toward innovative next-generation technologies?
    c. EPA conducted a cost-benefit analysis of the Montreal Protocol and the HFC phasedown that I believe shows that the ratification of Kigali will be a benefit to American businesses and American consumers. This study has not been released

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to the public yet. Will you immediately make the results of that study public? If not, why not and when will it be public?

d. What challenges does EPA face in achieving these benefits and what will EPA, under your leadership, do to successfully overcome these challenges?

30. ***OAR/OITA:*** It is my understanding that EPA has prepared analysis of the consumer cost benefits of the Montreal Protocol, including projected benefits to US consumers from the implementation of the HFC phasedown consistent with the Kigali amendment to the Protocol.

    a. Will you immediately make the results of that study public? If not, why not and when will the agency release this report?
    b. Please share with the Committee this analysis and the key findings from EPA's work.

Questions on the Methylene Chloride Ban

31. ***OCSPP:*** When I raised my concerns at the hearing about EPA's failure to finalize a methylene chloride ban that sufficiently protects both consumer and commercial users against its severe risks (as your chief of staff committed to my staff would occur at the time former Administrator Pruitt first announced his plans to finalize the ban), you stated that "It is at OMB, it is ready to go as soon as the Federal Register opens. That is something that I have taken seriously, and it is something that we have spent a lot of time, I have spent a lot of personal time on that issue. And I hope we can get that out as quickly as possible."

    a. Has EPA determined that methylene chloride poses an unreasonable risk to workers?
    b. Do you agree that the majority of reported deaths due to methylene chloride exposure have occurred in a work setting, even when workers have undergone hours of training and followed all recommended precautionary measures?
    c. Do you agree that the OSHA standard for methylene chloride exposure is more than 20 years old14, and that OSHA told EPA that it does not believe the OSHA standard is protective enough given the risks to workers that were identified by EPA?
    d. Do you agree that as part of its analysis, EPA assessed whether a training program for the proper use of respirators for methylene chloride paint strippers could be effective, and concluded it would be too costly and would likely result in companies voluntarily using alternatives to methylene chloride?
    e. How long does EPA expect it will take to finalize its proposal entitled "Methylene Chloride; Commercial Paint and Coating Removal Training, Certification and Limited Access Program" once it publishes this insufficiently protective approach to addressing occupational methylene chloride exposures?
    f. How long does EPA expect it will take to finalize its consumer ban on methylene chloride?

[14] https://www.regulations.gov/document?D=EPA-HQ-OPPT-2016-0231-0153

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Questions on PFAS

32. *OW:* The Agency for Toxic Substances and Disease Registry (ATSDR) announced its draft toxicological profile for PFAS on June 21, 2018, covering a total of 14 perfluoroalkyl substances. Due to inadequate data for 10 of the compounds, ATSDR could establish Minimum Risk Levels (MRLs) for only 4 of the PFAS chemicals. These MRLs are not the same as the current EPA Lifetime Health Advisories (LHAs) for PFOA and PFOS, but the new profiles indicate potential health impacts at lower concentrations that EPA's LHAs, which are set at 70 parts per trillion (ppt). Several states have established drinking water standards substantially lower than EPA's 70 ppt LHAs for PFOS and PFOA—some in the range of the equivalent levels reflected by the ATSDR profile, or about 7 ppt for PFOS and 11 ppt for PFOA. Is EPA evaluating these state actions and the ATSDR findings and incorporating the latest science in its regulatory process?

33. *OW:* When EPA conducted its Unregulated Contaminant Monitoring Rule (UCMR) 3 monitoring, it identified 63 drinking water systems[15] with combined PFOA and PFOS levels that exceeded EPA's health advisory levels. However, according to former EPA officials, EPA also received data related to PFAS detected at levels below EPA's health advisory level. For each category below, please provide a list of drinking water systems (including their location) whose UCMR 3 occurrence data fell into the specified range.

    a. Systems whose levels exceeded the combined PFOA and PFOS health advisory levels.
    b. Systems whose combined PFOA and PFOS levels were between 60-70 ppt.
    c. Systems whose combined PFOA and PFOS levels were between 50-60 ppt.
    d. Systems whose combined PFOA and PFOS levels were between 40-50 ppt.
    e. Systems whose combined PFOA and PFOS levels were between 30-40 ppt.
    f. Systems whose combined PFOA and PFOS levels were between 20-30 ppt.

Questions on Past Commitments

34. *AO/OITA:* In Chad McIntosh's September 2, 2018 letter to me, he made several commitments. For each of the following commitments drawn from that letter, please indicate whether the commitment has been met. If it has not been met, why not, and by what date will it be met?

    a. "If confirmed, I will commit to working directly with the National Tribal Caucus (NTC), a national body of tribal advisors who focus primarily on identifying and addressing national, cross-media and emerging tribal environmental issues. I will commit to meeting with the NTC on at least an annual basis. In practice, discussions will likely occur on a monthly basis. I will commit to meeting with the entire National Tribal Operations Committee on an annual basis."

[15] https://pfas-1.itrcweb.org/wp-content/uploads/2018/01/pfas_fact_sheet_regulations_1_4_18.pdf

b. "In addition, I commit to meeting with each of the Regional Tribal Operations Committee (RTOC) at least on an annual basis with my EPA regional counterparts, and commit to participating in key tribal meetings such as the National Congress of American Indians Annual Convention"
c. "Should I be confirmed, I will enhance the strength of Tribal representation within EPA by hiring a member of a federally recognized tribe to be the Director of the American Indian Environmental Office within the Office of International and Tribal Affairs."

35. ***OCSPP:*** In your January, 2019 letter to me, you made several commitments. For each of the following commitments drawn from that letter, please indicate whether the commitment has been met. If it has not been met, why not, and by what date will it be met?

    a. "EPA will withdraw its OMB submission to propose revisions to these [worker protection] rules and will not make any changes to the designated representative and minimum age provisions."
    b. The Agency will promptly submit the methodology for deciding how to collect and evaluate scientific research related to a chemical's safety that was recently developed by the Office of Chemical Safety and Pollution Prevention (OCSPP) to the National Academy of Sciences (NAS) for peer review and feedback.

Questions on the Shutdown

36. ***OMS/OW:*** Please describe how the on-going government shutdown is affecting EPA's efforts to –

    a. Provide guidance to state drinking water programs; and
    b. Coordinate with states to keep toxic chemicals out of drinking water and respond to contamination events.

37. ***OW:*** Please provide an update on when you expect the following EPA regulatory actions to be completed assuming the government shut-down ends by a) February 15 2019 or b) April 1, 2019.

    - National Primary Drinking Water Regulations for Lead and Copper (revisions to the so-called Lead and Copper Rule) – proposed rule expected in February 2019 according to the Fall 2018 Unified Agenda.
    - National Primary Drinking Water Regulations: Regulation of Perchlorate (pursuant to a consent decree entered by the U.S. District Court for the Southern District of New York, EPA was supposed to propose a Maximum Contaminant Level Goal (MCLG) for perchlorate in drinking water no later than October 31, 2018 and finalize the MCLG no later than December 19, 2019).
    - Use of Lead Free Pipes, Fittings, Fixtures, Solder and Flux for Drinking Water (EPA proposed regulations to implement section 1417 of the Safe Drinking Water Act on January 17, 2017 with a stated goal in the Unified Agenda of finalizing that rule by June 2019).

38. ***OMS/OGC:*** EPW staff contacted your office via email on January 9, 2019 requesting the names of the 6 EPA staff deemed "*necessary to perform activities expressly authorized by law*" and the 12 EPA staff deemed "*necessary to the discharge of the President's constitutional duties and powers*" in EPA's December 31, 2018 shutdown contingency plan.

On January 10, 2019 a member of your staff replied via email, writing "*It has been difficult with limited resources to pinpoint. Still working on this.*" To date, no additional response failed to that email request has been received.

Also on January 10, 2019, members of the EPW committee sent you a letter requesting information about any EPA staff that had been or was currently engaged in work related to your nomination. To date, no response to that letter has been received.

On the evening of January 14, 2019, reports surfaced that you had updated EPA's contingency plan to increase the number of EPA staff deemed "*necessary to the discharge of the President's constitutional duties and powers*" from 12 to 28, and increased the number of EPA staff deemed "*necessary to perform activities necessarily implied by law*" from zero (0) to 12.

During your confirmation hearing you also admitted in an exchange with Senator Van Hollen that certain EPA staff were brought back to work from furlough during the government shutdown to prepare you for this hearing;

> *Senator Van Hollen. And that there are approximately 891 who are on the job, is that approximately right?*
>
> *Mr. Wheeler. That sounds pretty exact, 891. It varies from day to day. We bring back people to work on specific issues.*
>
> *Senator Van Hollen. Right. Including some that you brought on to prepare for this hearing, is that right?*
>
> *Mr. Wheeler. Yes, Senator.*

a. Please list the names and official titles of the 6 EPA staff deemed "necessary to perform activities expressly authorized by law" in EPA's December 31, 2018 shutdown contingency plan.
b. Please list the names and official titles of the 12 EPA staff deemed "necessary to the discharge of the President's constitutional duties and powers" in EPA's December 31, 2018 shutdown contingency plan.
c. Please list the names and official titles of 28 EPA staff deemed "necessary to the discharge of the President's constitutional duties and powers" in EPA's January 14, 2019 contingency shutdown plan.
d. Please list the names and official titles of the 12 EPA staff deemed "necessary to perform activities necessarily implied by law" in EPA's January 14, 2019 contingency shutdown plan.

e. For each EPA staff member described in questions (a) through (d), please provide their work schedules and an accounting of each hour worked by each of those staff, as applicable, on any work activity related to your nomination or the confirmation process, and a description of the task or work function performed during that time.
f. Please submit all letters, emails, memoranda, or other written or electronic correspondence prepared, transmitted, or received by each EPA staff member described in questions (a) through (d) that relates to your nomination or confirmation process.
g. At any time since December 29, 2018, has any EPA staff member not encapsulated by questions (a) through (d) engaged in work activities related to your nomination or the confirmation process?
h. If your answer question (g) is yes, please list the names and official titles of those individuals.
i. If your answer to question (g) is yes, please submit all letters, emails, memoranda, or other written or electronic correspondence prepared, transmitted, or received by those EPA staff member(s) that relates to your nomination or the confirmation process.
j. If your answer to question (g) is yes, please submit work schedules and an accounting for hours worked by each of those EPA staff, as applicable, on any work activity related to your nomination or the confirmation process, including a description of the task or work function performed during that time.
k. Please list the names and official titles of the 12 EPA staff deemed "necessary to perform activities implied by law" that were added to EPA's contingency plan for the first time on January 14, 2019? What change in law or circumstance occurred between December 31, 2018 and January 14, 2019 lead you to add those 12 EPA staff after you originally estimated that no EPA staff would be necessary to perform activities implied by law?
l. What work activities are the 12 EPA staff deemed "necessary to perform activities implied by law" by the January 14, 2019 EPA shutdown contingency plan engaged in? Are any of those 12 EPA staff engaged in work activities or functions related to your nomination or the confirmation process?
m. Were any of the additional EPA staff added to the December 29, 2018 EPA shutdown contingency plan by the January 14, 2019 EPA shutdown contingency plan engaged in work activities or functions related to your nomination or confirmation process prior to January 14, 2019?
n. If your answer to question (m) is yes, please list the names and official titles of any such EPA staff member or members.

39. ***OMS/OGC:*** Have any EPA contractors, sub-contractors, or independent contractors performed work activities or functions related to your nomination or the confirmation process since December 29, 2018? If so, please list the names and official titles of those individuals.

40. ***OMS/OGC:*** How many total hours have been spent by you and EPA staff discussing, researching or otherwise preparing for your nomination and the confirmation process, including your confirmation hearing testimony and responding to questions for the record?

41. ***OMS:*** In 2017 EPA conducted roughly 12,000 inspections to make sure that air, water and toxic waste rules were being complied with. That's more than 230 each week. How many inspections has EPA conducted in the approximately three weeks since December 29, 2018?

    a. Has the ability of EPA's pollution inspectors to monitor air emissions been impacted or diminished in any way by the federal government shutdown, yes or no?
    b. Has EPA's ability to monitor and test for water contamination been impacted or diminished in any way by the federal government shutdown, yes or no? If yes, please describe the impact of halted inspections during the shutdown on human health and the environment.

42. ***OMS/OCSPP/OECA:*** I recently learned that samples of GenX, an unregulated, PFOA-like contaminant used to make nonstick cookware and other products, are sitting in refrigerators near the Lower Cape Fear River in Fayetteville, North Carolina because EPA's lab in Athens, GA has been shut down.

    a. Please confirm whether this is true.
    b. If so, please provide a list of similar situations where EPA's ability to monitor and test for water contamination has been affected by the government shutdown.

43. ***OMS/OAR:*** I recently learned that EPA has had to stop sampling air emissions in Louisiana for chloroprene.

    a. Please confirm whether this is true.
    b. If so, please provide a list of similar situations where the ability of pollution inspectors to monitor air emissions been impacted or diminished due to the government shutdown.

44. ***OMS/OECA/OLEM:*** I have heard that EPA was forced to cancel a public hearing on cleanup proposals for the former West Calumet Housing Complex in East Chicago, Indiana.

    a. Please confirm whether this is true.
    b. EPA's Office of Land and Emergency Management, which oversees cleanup of Toxic Superfund sites, is currently down from 468 staffers to 3. Has Superfund site monitoring or oversight been impacted or diminished in any way during the government shutdown as compared to the same time period last year? If so, please quantify all such impacts.

45. ***OMS/OGC:*** Have you or any member of EPA staff directed EPA's Office of General Counsel (OGC) to engage in any work since December 29, 2018? Please provide this Committee with a comprehensive list of the types and scope of work performed by OGC staff since December 29, 2018, noting specifically any task that relates to (i) your nomination or confirmation hearing; (ii) pending or ongoing regulatory matters; and (iii) enforcement actions or consent decrees.

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46. ***OMS/OGC:*** On December 28, 2019, EPA tweeted: "Due to a lapse in appropriations, EPA websites and social media will not be regularly updated. . . . In the event of an environmental emergency threatening the safety of human life or to protect certain property, epa.gov will be updated with appropriate information." Aside from a post on January 10, 2019 announcing an enforcement settlement with Fiat Chrysler, EPA's social media accounts have been silent since EPA closed on December 29, 2018. However, on the day of your confirmation hearing, January 16, 2019, EPA's Twitter feed began posting messages promoting your nomination, including encouraging the public to watch your hearing, quoting statistics from your testimony, and posting an op-ed from Chairman Barrasso praising your nomination. On that same day, EPA also issued press releases to reporters with Chairman Barrasso's op-ed and your written testimony.

    a. Have you or any member of EPA staff directed EPA's Office of Public Affairs (OPA) to engage in any work since December 29, 2018?
    b. Do you consider your nomination or confirmation to constitute an "environmental emergency threatening the safety of human life" or property? If so, do you believe your nomination and confirmation warranted requiring furloughed OPA staff to draft and post on social media accounts?
    c. Please provide this Committee with a comprehensive list of the types and scope of work performed by OPA staff since December 29, 2018, noting specifically any task that relates to (i) your nomination or confirmation hearing; (ii) pending or ongoing regulatory matters; and (iii) enforcement actions or consent decrees.

47. ***OMS/OGC/AO:*** Tens of thousands of EPA staff and contractors were furloughed after the federal government was shut down and others have been asked to work for little or no pay.

    a. How many EPA staff or contractors have missed or made late rent or mortgage payments, or are facing eviction or foreclosure?
    b. How many EPA staff or contractors have missed or made late student loan payments during the shutdown?
    c. How many EPA staff or contractors have missed payments on auto loans or leases during the shutdown?
    d. How many EPA staff or contractors have missed credit card payments, or incurred credit card interest as a result of their inability to make those payments?
    e. How many EPA staff or contractors have been unable to pay for child care during the shutdown?
    f. How many EPA staff or contractors have been unable to pay medical expenses for themselves or their families during the shutdown?
    g. How many EPA staff or contractors have filed for unemployment benefits?
    h. How many EPA staff or contractors have attempted to get part-time or temporary jobs during the shutdown?
    i. How many EPA staff or contractors have had their credit scores impacted by the shutdown?
    j. How many EPA staff or contractors have applied for private loans to make ends meet during the shutdown? How many were rejected?

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k. How many EPA staff or contractors have been forced to spend money from their savings accounts, retirement accounts, 401ks, pension funds, or children's 529 college funds as a result of the shutdown?
l. How many EPA staff or contractors have been forced to secure, or attempt to secure private loans or additional lines of credit as a result of the shutdown?
m. How many EPA staff or contractors have been forced to pawn or sell personal effects or real property as a result of the shutdown?

48. ***OMS/Regions:*** It is my understanding that the EPA-managed projects listed below have stopped due to the shutdown.

    a. Please confirm whether that is true for each project.
    b. In addition, please supplement this list with additional similar projects around the country that are halted because of the shutdown.
        i. Camp Fire, Paradise, CA (household waste cleanup)
        ii. Whiting Metals, Whiting, Indiana (cited for harmful levels of airborne lead)
        iii. SH Bell, East Liverpool, Ohio (fence line monitoring, cited for airborne manganese)
        iv. SH Bell, Chicago, Illinois (fence line monitoring, cited for airborne manganese)
        v. Watco, Chicago, Illinois (fence line monitoring, cited for airborne manganese)
        vi. Sterigenics, Willowbrook, Illinois (ethylene oxide)
        vii. CII Rain Carbon, Robinson, Illinois (cited for airborne particulate matter)
        viii. NASCO, Chicago, Illinois (awaiting results of metal and particulate matter monitoring
        ix. General Iron, Chicago, Illinois (cited for Volatile Organic Compounds)
        x. USS Lead, East Chicago, Illinois (superfund emergency removal for lead, relocation of residents, soil removal)
        xi. St. Regis Paper Co., Cass Lake, Minnesota (clean-up of dioxin, pentachlorophenol, PAHs)
        xii. Lukenheimer Foundry, Cincinnati Ohio (clean-up of heavy metals, corrosives, ignitable wastes)
        xiii. Graveyard Auto, Clarksville, Indiana (clean-up of leaking drums)
        xiv. C&H Mineral, Hubbel, MI (clean-up delayed of arsenic, lead)

49. ***OMS/OW:*** EPA's Safe Drinking Water Information System (SDWIS) identifies which public water systems are in violation of drinking water standards and provides information on the severity of each violation. Unfortunately, a recent assessment of SDWIS drinking water reports indicates a major drop in enforcement actions. It appears that as a result of the government shutdown, EPA did not make its quarterly Dec 31, 2018 update to SDWIS. This means that communities will not have the most up-to-date information on the quality of their drinking water.

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a. Please confirm whether it is true that EPA is unable to update SDWIS because of the government shutdown.
b. If you answered the first question in the affirmative, please explain the rationale behind your determination to allocate resources away from updating drinking water contamination data and to your confirmation hearing preparations.

Questions on Congressional Correspondence

50. ***OGC/OEX:*** For approximately the past year and a half, EPA has consistently provided documents I have requested in oversight letters at the same time or earlier than the same materials were being provided to Freedom of Information Act (FOIA) requestors or House Committee Chairs. Will you commit to continuing this practice of providing me with responsive materials at the same time they are provided to House Committee Chairs and FOIA requestors, or sooner? If not, please explain why not.

51. ***OCIR/OPA:*** Since you took the helm at EPA as Acting Administrator on July 6, 2018, I and members of this Committee have sent you many letters containing document requests that remain unanswered. A number of letters that were sent to your predecessor also lack complete responses. By what specific date should we expect to receive EPA's complete response to each of the following letters?

    a. April 4, 2017 – letter on political appointees' obstruction of career staff's estimates related to the implementation of the HONEST Act
    b. April 6, 2017 and April 14, 2017 – letters on EPA's withdrawal of an Information Collection Request sent to the oil and gas industry
    c. April 7, 2017 – letter on EPA's plans to rescind the Clean Power Plan
    d. August 31, 2017 – letter on secrecy at EPA
    e. October 25, 2017 – letter detailing concerns about the lead and copper rule
    f. October 26, 2017 – letter on EPA's decision to repeal the Clean Power Plan
    g. December 13, 2017 – letter on EPA's Sue and Settle Directive
    h. January 9, 2018 – letter on Mr. Pruitt's appointment of two scientists to serve on EPA's Federal Advisory Committees who have financial conflicts of interest
    i. January 18, 2018 – letter on a range of topics, including TSCA, climate change, and fuel efficiency standards
    j. January 19, 2018 – letter on Mr. Pruitt's meetings with industry
    k. January 19, 2018 – letter on transparency, enforcement, and various other concerns
    l. March 6, 2018 – letter on Mr. Pruitt's wasteful spending
    m. March 12, 2018 – letter on EPA's decision to repeal emissions standards for glider trucks
    n. March 14, 2018 – letter on EPA's reversal of the once-in-always-in policy

o. April 3, 2018 – letter on Mr. Pruitt's decision to reverse EPA's prior determination on greenhouse gas tailpipe standards
p. April 3, 2018 – letter on Mr. Pruitt's December 2017 trip to Morocco
q. April 9, 2018 – letter on Mr. Pruitt's use of Safe Drinking Water Act authority to award large pay raises to favored aides
r. April 12, 2018 – letter on Mr. Pruitt's multiple ethics and wasteful spending practices
s. April 24, 2018 – letter on EPA's drafting of the secret science rule and its major flaws
t. May 3, 2018 – letter on EPA's signing of a Cooperative Research and Development Agreement with Water-Gen
u. May 15, 2018 – letter on reports that the White House prevented the release of a study concluding that PFAS poses a danger to human health at lower levels than set by EPA
v. May 17, 2018 – letter on EPA's significant delay of the IRIS assessment on formaldehyde
w. May 21, 2018 – letter on Mr. Pruitt's compliance with rules governing his legal defense fund
x. June 27, 2018 – letter on EPA's reduced enforcement of the Clean Water Act
y. November 15, 2018 – letter on EPA's federal advisory committees
z. December 3, 2018 – letter on the Trump Administration's preparation and release of the Fourth National Climate Assessment
aa. December 6, 2018 – letter regarding EPA's compliance with GSA's travel regulations
bb. December 19, 2018 – letter requesting communications between industry and EPA about fuel economy or greenhouse gas tailpipe standards
cc. January 10, 2019 – letter requesting documents related to the government shutdown and use of furloughed staff to prepare you for your confirmation hearing
dd. January 10, 2019 – letter on Diane Hendricks' $50,000 contribution to Scott Pruitt's legal defense fund

Questions on other Clean Air Act issues

52. ***OAR:*** The Ozone Transport Commission has documented electric generating units (EGUs) that appear to have turned off their nitrogen oxide (Nox) controls. What are the public health and environmental impacts of these actions? Are downwind states including Maryland, Delaware and Connecticut adversely impacted by transported NOx and/or ozone?

53. ***OAR:*** In your August 1, 2018 hearing before the EPW Committee, you said you could not "predict with certainty" the effects EPA's rollbacks would have on transport pollution and attainment status for states. In part, that is because at the time EPA had not modeled any of the effects these rules may or may not have on states. Since that time, has EPA modeled the effects of the proposed clean air regulations and changes in guidance on air pollution and transport pollution?

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a. If the Affordable Clean Energy Act goes final, how will that affect downwind pollution and the states' ability to meet attainment status for all National Ambient Air Quality Standards (NAAQS), and State Implementation Plans (SIPs), since EPA estimates there will be an increase in sulfur dioxide and ozone pollution from this rule?
b. If EPA rescinds MATS, how will that affect downwind pollution, the states' ability to meet attainment status for all NAAQS and SIPs?
c. What are the effects of the "once in, always in" change in guidance on downwind pollution, the states' ability to meet attainment status for all NAAQS and SIPs?
d. What are the effects of the New Source Review changes in guidance on downwind pollution, the states' ability to meet attainment status for all NAAQS and SIPs?
e. How will the changes in regulating methane emissions from oil and gas affect downwind pollution, the states' ability to meet attainment status for all NAAQS and SIPs?

54. ***OAR:*** Can you name three policies you have formally proposed (not just announced that you will propose) or implemented that the scientific community believes will actually lead Americans to breathe LESS toxic air pollution than they would have had all the protective rules implemented by President Obama stayed in place?

55. ***OAR:*** During the August 1, 2018 EPW hearing, I asked you several questions for the record regarding the Renewable Fuel Standard (RFS) and my continued concerns about the volatility in the RFS compliance trading system used by EPA, known as the Renewable Identification Number (RIN) market. Despite promises to act on this issue, I've seen no action to date from EPA on the issue of RIN market manipulation and still do not have a clear answer on how EPA is coordinating with other agencies to address this issue. I was extremely disappointed by your August 1st hearing answers and ask that you please provide greater clarity.

a. Please provide the dates, times and details of any communication, including any emails and phone calls, between the Commodity Futures Trading Commission (CFTC) and EPA since the CFTC-EPA memorandum of understanding on RIN market manipulation was signed.
b. CFTC has stated publicly that it provided EPA with recommendations on what data EPA should be collecting to mitigate RIN market manipulation. Please provide CFTC's recommendations and explain why EPA has refused to make this information public.
c. In your answers to my August 1st hearing questions you indicated your staff had only met with Federal Trade Commission (FTC) staff one time. Was that an accurate assessment? Has the number changed since August 1, 2018? And if true, why isn't EPA having ongoing conversations with FTC on this issue?
d. Your answers to my August 1st hearing questions suggest that your staff only shared RIN data with CFTC from 2010 to August 2016. Why hasn't EPA shared any RIN data with CFTC since August 2016?

e. The State of California has created a dashboard to provide weekly, monthly, quarterly and annually trading data for its own renewable fuel program. After talking to many stakeholders involved in that process, it seems that California's renewable fuel trading dashboard has been able to provide valuable insight into trading and helped reduced market volatility. EPA can easily create a similar dashboard today and not wait for rulemaking. You have already created a dashboard for small refinery waivers, why hasn't EPA created a RIN dashboard that provides the public weekly, quarterly and annual RIN trading data?
f. The CFTC has successfully used position limits to protect against excessive speculation and market manipulation, which helped stabilize markets. In addition, Canada and California have also used position limits as effective market controls to help reduce market credit hoarding. Canada, specifically, has done so regarding their own RFS program with success. Are position limits being considered in any efforts to improve RIN market transparency and has EPA had any discussions with the CFTC about establishing position limits for the RFS RIN market? If not, why not?
g. Has EPA had any discussions with Canada about their biofuel market credit controls? If so, can you elaborate on those discussions? If not, why not?

56. ***OECA/OGC:*** With a significant non-compliance rate, why isn't EPA's Office of Enforcement and Compliance Assurance enforcing the manufacturer emission reporting requirements under the residential wood heater New Source Performance Standards rules?

57. ***OAR:*** In your testimony, you highlighted EPA's announcement that it will officially begin the process to set a new national nitrogen oxide (NOx) emissions standard for heavy-duty vehicles.

    a. States have been asking EPA to take this action for over two years. Why is EPA waiting until early 2020 to propose regulations?
    b. Will you finalize a rule in time to help states that have ozone nonattainment concerns meet their SIP requirements for the ozone NAAQS?
    c. What ozone reduction metric will you use to determine whether the proposal is adequately protective of public health?
    d. Emissions control technologies are able to reduce NOx emissions by 90%, down to .02 g/bhp-hr, at approximately $500-1000 per diesel truck by 2024 or earlier. Alternative fuel vehicles such as those with natural gas engines already achieve those reductions. How does this estimated cost compare to the current or projected range of cost-effectiveness of stationary control technologies that might otherwise have to be implemented to achieve the same NOx reductions in ozone nonattainment areas?

Questions on EPA's Use of Science

58. ***OAR:*** The EPA recently disbanded its 20-member Particulate Matter Review Panel (PMRP) and decided not to convene the Ozone Review Panel. In addition, EPA announced that the responsibility of those two panels to advise on EPA's 5-year review of the National Ambient

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Air Quality Standards (NAAQS) will be transferred to the significantly smaller seven-member Clean Air Science Advisory Committee (CASAC), and such review will occur on an accelerated schedule. Notably, CASAC's draft comments to you dated December 10, 2018 recommend that you reconvene the PMRP and warns that the accelerated schedule is too short.

a. Given that your decision to eliminate the first two larger expert panels, transfer the workload to the much smaller CASAC, and speed up the review will have a direct impact on the quality of review conducted, did you consult with CASAC on the accelerated schedule in the memo or the consequences of doing away with panels before you took those actions? If not, please explain why not.
b. Several members of CASAC have expressed doubt that they have the needed expertise to review the science on particulate matter. Do you still believe that members of this CASAC are qualified to do the work you have asked of them? If so, please explain why.
c. One of the areas of expertise that is lacking on CASAC is epidemiology, which would information CASAC's understanding of the impacts of particulate matter on early death and heart attacks. Do you believe that CASAC can conduct an informed review of the NAAQS given the absence of this crucial subject matter expertise? If so, please explain why.

59. ***ORD:*** Please provide a copy of the IRIS Handbook that has been completed but is not yet published.

Questions on other Clean Water Issues

60. ***OW:*** It has been a very long time since Washington, DC struggled with its lead in drinking water discovery, and it has been four years since the drinking water crisis erupted in Flint, MI.

a. How many lead service lines in Flint have been replaced as of December 31st, 2018?
b. Administrator Pruitt made lead—especially in drinking water—an agency priority, declaring a "War on Lead" in February 2018. Approximately 5000 municipalities across the country exceeded the 15 parts per billion standard in place at the time of his declaration. How many of those municipalities now comply with that legal limit?
c. What has EPA done to facilitate that compliance?
d. Having admitted a failure of oversight in the Flint situation, could you describe how EPA has since strengthened its oversight of state drinking water programs?

61. ***OW:*** Please explain EPA's intentions regarding the discharge of partially treated or "blended" sewage from wastewater treatment plants.

a. Does EPA intend to propose regulations permitting discharge of partially treated or blended sewage from wastewater treatment plants? If so, when?

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b. If so, under what circumstances (i.e., what thresholds of rainfall, etc.)?
c. Does EPA have evidence that such discharges are safe for public health and the environment? If so, please provide it.
d. In EPA's assessment, how effective are so-called "side-stream" technologies, proposed by treatment plant operators, as an alternative to their historic treatment methods?

62. ***OW:*** As you know, the proposed WOTUS Rule you and the Army Corps of Engineers propose is notably lacking in specifics related to some of the necessary details the public needs to fully consider the implications of your proposal, much less address the numerous and potentially rule-obliterating questions posed in the preamble.

a. With that concern in mind, please provide estimates of the miles and acres affected for the following categories of waters covered by the proposed rule (please provide this information on a state-by-state basis):
    i. The number of miles of ephemeral streams;
    ii. The number of miles of intermittent streams;
    iii. The acres of wetlands without a surface water connection to any "waters of the United States" as the December 2018 proposal would define that term;
    iv. The acres of wetlands without a surface water connection to any "waters of the United States" as the December 2018 proposal would define that term plus those wetlands with a surface water connection only to intermittent streams; and
    v. The acres of ponds that will not qualify as "waters of the United States" as the December 2018 proposal would define that term.

b. To further assist our consideration of the proposed rule, please provide the following information (also on a state-by-state basis) for each of the categories of waters identified in response to question 16(a) above:
    i. The population served by drinking water systems with source water protection areas containing any of the waters identified above.
    ii. Any dischargers permitted under the National Pollutant Discharge Elimination System to discharge to any of the waters identified above.
    iii. Any facilities subject to the oil spill prevention, control, and countermeasure program because of their potential to affect any of the waters identified above.
    iv. Any of the waters identified included on a state list submitted to EPA pursuant to section 303(d)(1) of the Clean Water Act.
    v. Any enforcement action under the authority of section 309 of the Clean Water Act, in which the water body about which the violation was alleged was any of the waters identified above. This includes any compliance order, civil or criminal action, or assessed administrative penalty.
    vi. Any jurisdictional determination (either preliminary or approved) by the U.S. Army Corps of Engineers which assessed whether a water body was

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a "water of the United States" and for which the subject water was any of the waters identified above.

vii. Any activity for which an applicant has sought a federal license or permit and which may result in a discharge into any of the waters identified above, for which the state has granted, denied, waived, or provided conditional certification pursuant to section 401 of the Clean Water Act.

Senator Booker:

63. ***OCSPP:*** Following the passage of the newly strengthened Toxic Substances Control Act (TSCA), EPA proposed two rules banning certain uses of trichloroethylene (TCE). EPA has since delayed finalizing these bans for more than 2 years and has stated its intent to ignore exposure to TCE from releases into air, water, and land in a review of the chemical.

    a. Are you aware that TCE is a known carcinogen linked to neurological damage and birth defects that is polluting the air, land, and water in my state and in states across the country?
    b. Will you commit to finalizing the proposed bans on TCE within 90 days in order to protect the health of children and workers while you continue the broader risk evaluation of TCE under TSCA?
    c. Will you commit to ensuring that EPA incorporates all known releases of and exposure to TCE, including through air, soil, and water, in its ongoing risk evaluation of TCE?

64. ***OCSPP:*** One positive action taken under Administrator Pruitt was EPA's commitment to finalizing a ban proposed for all consumer and most commercial uses of methylene chloride in paint strippers. The record EPA assembled two years ago to support the need for a ban on most commercial as well as consumer uses is clear: Allowing such products to stay on the market based on reliance on increased labeling, protective equipment, or training requirements will not protect the public's or workers' health. It now appears that you are rolling back that commitment and planning to limit the ban of this highly toxic and acutely lethal chemical to consumer uses only.

    a. Are you aware that workers constitute the vast majority of the more than 50 deaths from these uses, and that any failure to or delay in protecting workers will lead to more deaths?
    b. Will you commit to finalizing a ban for all consumer and most commercial uses of methylene chloride, as originally proposed by the EPA?

65. ***OW:*** As you know, your predecessor declared a "War on Lead" in February 2018 due to the harmful effects this toxic metal can have on human health. As you also know, the legal limit on lead in drinking water is 15 ppb. When the "War on Lead" was announced, approximately 5000 municipalities across the country exceeded that number.

a. To date, how many of those municipalities have come within the legal limit?

66. ***OP:*** Environmental Justice is something that I am very concerned about. As you know, low income communities, communities of color and indigenous communities are disproportionately located near and harmed by sources of pollution. So I appreciated that in your opening statement that under your leadership EPA was focused on helping the communities that are on the front lines of pollution. But unfortunately it seems to me that the actions you have already taken at EPA will cause great harm in these communities.

    a. Can you please explain how your proposal to repeal and replace the Clean Power Plan will increase protections for human health and the environment in low income communities, communities of color and indigenous communities?
    b. Can you please explain how your proposal to weaken oil and gas methane standards will increase protections for human health and the environment in low income communities, communities of color and indigenous communities?
    c. Can you please explain how your proposal to delay deadlines for landfill emission guidelines will increase protections for human health and the environment in low income communities, communities of color and indigenous communities?
    d. Can you please explain how your proposal to delay deadlines for wood smoke standards will increase protections for human health and the environment in low income communities, communities of color and indigenous communities?

67. ***OLEM/OP:*** According to the most recent Regulatory Agenda, EPA is still considering a proposal to rollback key updates from the 2017 Chemical Disaster Rule. Last July, I asked that you withdraw the proposed modifications to the existing safeguards that protect communities, especially low-income communities, indigenous communities, and communities of color, from toxic chemicals stored in industrial facilities across the country. What is particularly troubling is that it appears that you are continuing to move forward with the rollbacks even though EPA's own findings show that there is evidence that risks from Risk Management Programs (RMP) facilities disproportionately fall on minority and low-income neighborhoods.

    a. What is the status of this work?
    b. Given your testimony that you intend to focus on protecting communities suffering most from pollution, will you commit to not move forward with this proposal that will place undue burden on those who are most at risk?

68. ***OCSPP/OP:*** Will you provide a date certain by when you will withdraw from OMB review EPA's proposal to revisit the minimum age requirement under the Worker Protection Standard (WPS) and Certification of Pesticide Applicators (CPA) rules, and the designated representative provision of the WPS, in accordance with your commitment to Senator Carper as set forth in your January 2019 letter?

69. ***OCSPP/OP:*** Will you provide a date certain by when you will remove the above-referenced actions from EPA's regulatory agenda?

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70. ***OCSPP/OP:*** Will you commit to withdraw EPA's proposal to revisit the application exclusion zone (AEZ) established in the revised Worker Protection Standard?

    a. If not, if and when EPA does revisit the AEZ, will you commit to uphold the law and ensure that any revision to the AEZ will protect workers and other persons from pesticide exposure – including exposure from pesticide drift – as required by FIFRA?

71. ***OCSPP:*** Will EPA commit to seeking input from the FIFRA Scientific Advisory Panel regarding risks to workers and others associated with pesticide drift, as well as how to ensure that there is no unreasonable adverse effects to workers and bystanders from pesticide drift resulting from pesticide application?

72. ***OCSPP:*** Will EPA confirm that it will not propose any rule revising the WPS or CPA without first consulting with the FIFRA Scientific Advisory Panel?

73. ***OCSPP:*** Will EPA commit to considering the dangers and realities associated with requiring additional personal protective equipment (including the risk of heat stress) when conducting pesticide registration reviews?

Senator Boozman:

74. ***OCSPP:*** Acting Administrator Wheeler: There is research taking place in my state and across the United States that would benefit from innovations in plant breeding, such as gene editing. The United States Department of Agriculture (USDA) and Food and Drug Administration (FDA) have been working to quickly develop proposals that will allow these innovations to occur, and grant clarity to my constituents as well as other stakeholders on how gene edited products will be treated. EPA has regulatory oversight over gene edited plants that would produce pesticide-like substances, and yet has not offered any thoughts on the issue thus far. Would you commit EPA to working with FDA and USDA to develop a consistent, interagency approach, in order to grant clarity to affected stakeholders?

75. ***OW:*** Acting Administrator Wheeler: As you know, the Vessel Incidental Discharge Act (VIDA) was signed into late last year. This was an important measure that will have a long-lasting impact on commercial vessel operators in my state. It's important to start the implementation process for VIDA as soon as possible. Notwithstanding the shutdown's effect on Agency personnel, can you give the Committee some insight on whether the Agency has begun to address VIDA implementation?

76. ***OAR:*** Acting Administrator Wheeler: There is scientific evidence showing ethanol blends above 10 percent can harm older vehicles, small engines (such as lawn mowers), boat engines and motorcycles and is incompatible with the existing retail gasoline infrastructure. What will you do to ensure that the annual RFS-mandated volumes protect the current U.S. vehicle fleet and existing infrastructure?

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Senator Braun:

77. ***OW:*** During your testimony, you stated that you consider yourself an avid conservationist. I was glad to hear you say that you are working to reduce the timetables of superfund cleanup, particularly in situations where the health of young children may be at risk. I remain interested in working closely with you on your conservation efforts.

    One area in particular where I would like to cooperate regards the agencies work facilitating private conservation projects. Can you provide a few examples of where EPA has been able to step in and aid private citizens in conservation efforts?

78. ***OAR:*** In November 2016, the EPA published a proposed rule known as the Renewables Enhancement and Growth Support (REGS) Rule. The draft rule proposed a wide range of technical fixes and commented on a number of regulatory issues that biofuel stakeholders have long hoped to address. While the EPA completed the notice and comment process on the REGS rule almost two years ago, the Agency never implemented a final rule.

    a. Can you provide update on the status of the proposed REGS rule and, in particular whether the EPA currently has a timetable for completing this rulemaking?
    b. Is EPA contemplating including various proposals from the REGS rule as a part of other related priority rulemakings such as the RFS reset?

Senator Cardin:

79. ***OW:*** In your view, what is the EPA's role in holding the Chesapeake Bay jurisdictions accountable for reducing pollution and meeting target dates, and the role of the Chesapeake Bay Total Maximum Daily Load (TMDL) in that accountability process?

80. ***OAR:*** As EPA Administrator, will you commit to submitting the Kigali Amendment to the Montreal Protocol to the U.S. Senate for ratification? Please explain why or why not.

81. ***OAR:*** Under the EPA's Safer Affordable Fuel Efficient (SAFE) Vehicles Rule for Model Years 2021-2026, the EPA's preferred option of "freezing" existing Corporate Average Fuel Economy (CAFE) and tailpipe carbon dioxide standards for passenger cars and light trucks at model year (MY) 2020 levels for both programs through 2026 will increase U.S. fuel consumption and will result in significant increases in emissions of nitrogen oxide (NOx). The Chesapeake Bay TMDL incorporates air deposition load allocations that account for the emission reductions anticipated by the Chesapeake Bay watershed jurisdictions and other states in the larger Chesapeake Bay airshed. Can the EPA account for the impact of the increase in emissions on the expected decreases in nitrogen deposition in the Chesapeake Bay that are reflected in the Chesapeake Bay TMDL?

82. ***OAR:*** Emissions will also increase under the EPA's proposed Affordable Clean Energy (ACE) Rule that proposes to alter how facilities calculate emissions increases that trigger New Source Review. Please provide an estimate for the Chesapeake Bay airshed of the

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difference in NOx reductions that were expected to be achieved by implementing the existing New Source Review Program under the ACE Rule versus the Clean Power Plan.

83. ***OW:*** According to the Environmental Integrity Project's report, "Undermining Protections for Wetlands and Streams: What the Trump Administration's Proposed Rollback of Wetlands Regulations Means for the Chesapeake Bay Region" (December 12, 2018), which uses laser mapping data collected by federal researchers and the University of Maryland, there are 34,560 acres of scattered wetlands called "Delmarva potholes" on the Delmarva Peninsula that would be no longer be subject to federal protections under the proposed revised definition of "waters of the United States." These wetlands help reduce agricultural runoff pollution into the Chesapeake Bay. Do you agree that removing federal protections could mean less flood protection for infrastructure on Maryland's Eastern Shore and more pollution flowing into the Chesapeake Bay and its tributaries?

84. ***OAR:*** During the hearing, there was disagreement about whether California should be able to set its own standards for fuel economy and tailpipe carbon dioxide emissions from new passenger cars and light trucks. Please state how you will protect the ability of states that have adopted California's new vehicle emissions standards under section 177 of the Clean Air Act, including Maryland, to maintain their commitments to air quality?

85. ***OAR:*** Maryland state officials asked the EPA to reconsider its decision not to impose tougher pollution standards on certain Midwestern power plants, despite documentation that their emissions contribute significantly to Maryland's ground-level ozone pollution problem, about two-thirds of which is estimated to come from out-of-state sources, and that emission controls are already installed. Will you work with the State of Maryland in order to ensure that federal health-based air quality standards protect downwind states?

86. ***OCSPP:*** Will you work with Congress to finalize a ban on the organophosphate insecticide chlorpyrifos? Please explain your position.

Senator Duckworth:

87. ***OW/R5:*** I am extremely concerned that U.S. Environmental Protection Agency (EPA) is failing to meet its statutory duties when issuing and reviewing permits. I am also concerned that EPA political staff are failing to adequately address concerns raised by career staff regarding impacts of industrial pollution on the Great Lakes.

    EPA Region 5 reportedly provided a Foxconn facility, to be located in South-east Wisconsin, latitude to draw millions of gallons of water from Lake Michigan and to negatively impact adjacent wetlands. Similarly, EPA career staff have raised concerns regarding the Polymet Mine's water permit application in Minnesota, which remain unaddressed. Public reports indicate that EPA Region 5 staff prepared comments raising concerns with Polymet's water pollution permit application, but were discouraged by political appointees from sharing their concerns with the Minnesota Pollution Control Agency (MPCA).

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Will you commit to immediately releasing comments or concerns raised by EPA staff regarding the Foxconn project and the Polymet Mine application?

88. ***OAR:*** The Renewable Fuel Standard (RFS) directs EPA to set annual Renewable Volume Obligation (RVO) levels. These blending mandates increase each year until 2022. However, under the Trump Administration, EPA has provided dozens of "hardship" waivers, reducing the mandate by billions of gallons of renewable fuels. EPA's abuse of these hardship waivers have financially harmed farmers in Illinois while lining the pockets of our Nation's most profitable oil companies. Last year, EPA proposed a "reset" regulation for the RFS triggered by its abuse of these waivers.

    What is your timeline for the release, public comment period and final rule of the reset regulation? How will EPA determine future RVO target levels? Do you expect EPA to reduce RVO target levels for conventional, advanced or cellulosic biofuels? Please identify which categories of biofuel will be impacted by the reset regulation.

89. ***OAR:*** Part of EPA's obligation under existing law is to identify, assess and register new forms of renewable fuel for the Renewable Identification Numbers (RIN) Market. However, EPA appears to have a multi-year backlog for congressionally-approved registration and pathway applications.

90. ***OAR:*** How many registrations and pathway applications are currently pending under the RFS? How many registrations and pathway applications did EPA approve in fiscal years 2017 and 2018? What is delaying the approval of applications and how will you address this backlog?

Senator Ernst:

91. ***OCSPP:*** Under the Coordinated Framework for the Regulation of Biotechnology, the Department of Agriculture, the Food and Drug Administration, and the Environmental Protection Agency have regulatory authority over the products of plant biotechnology. EPA's regulatory authority falls under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and is specific to "plant incorporated protectants," or "PIPs." New breeding methods such as gene editing allow plant breeders to work within a plant's gene pool to make changes that could have occurred naturally or through conventional breeding, albeit more precisely and efficiently.

    USDA recognized this in Secretary Perdue's March 2018 policy statement on plant breeding innovation. This includes methods such as gene editing that will be increasingly used by plant breeders to produce new plant varieties that are indistinguishable from those that could be developed through traditional breeding methods. Under FIFRA, EPA has the statutory authority to clarify the existing exemption for PIPs derived through conventional breeding includes those applications of plant breeding innovation, such as gene editing that could be achieved through conventional breeding.

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a. Will EPA commit to coordinating with USDA and FDA to ensure a clear and consistent regulatory pathway for products of plant breeding innovation, such as gene editing, in a way that does not stifle innovation in U.S. agriculture?

92. ***OAR:*** In several recent meetings with me, you committed to proposing a rule that would provide relief to the glider truck industry. When do you expect this rule to be proposed? Please provide an approximate date.

93. ***OAR:*** At your confirmation hearing, you indicated that lower RIN prices did not necessarily mean that there is less "economic hardship" for small refineries, and that RIN prices were just "one factor" in determining whether or not a refinery faces a "disproportionate economic hardship" so as to justify receiving an SRE.

    a. Besides purchasing RINs, what "other factors" contribute to obligated parties' costs in complying with the RFS?
    b. Is there a scenario where lower RIN prices do not alleviate obligated parties' "economic hardship" under the RFS?

94. ***OAR:*** At your confirmation hearing, you stated that it is not viable to "reallocate" biofuel volumes that are waived as part of the RFS's SRE provision to other obligated parties. Beyond resorting to reallocation, are there any other options at EPA's disposal to mitigate the negative effect that SREs have on biofuel demand? For example, in setting Renewable Volume Obligations (RVOs), does EPA have authority to:

    a. Reduce the use of the cellulosic waiver authority to intentionally draw down the carryover RIN bank?
    b. Allow for the partial backfilling of missing cellulosic volumes with non-cellulosic advanced biofuels to reflect the fact that hardship waivers will be more frequently granted?

95. ***OAR:*** In responding to a question on small refinery waivers, you noted that geography played a role in awarding these waivers. Where in the small refinery waiver section of the Renewable Fuel Standard does it state that geographic location is a factor that can be considered, or determinative, in the decision to issue a small refinery exemption?

96. ***OAR:*** Well into 2017 both the Obama and Trump Administration's readily reviewed and approved facility registrations to produce cellulosic ethanol from corn kernel fiber through a peer-reviewed process. However, since November of 2017 several new registrations for cellulosic production utilizing corn kernel fiber technology have been delayed indefinitely for approval, since EPA has decided to not accept peer-reviewed methods as provided in statute by the Renewable Fuel Standard for approving registrations, even when the registrations use the same methods as the Trump Administration had already accepted.

    The delays caused by EPA has created unnecessary uncertainty for the ethanol industry, technology providers, and their investors. As a result, tens-of-millions of gallons of cellulosic biofuels have not been produced, diminishing the demand for corn at a time

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when our producers are facing low commodity prices. This hits Iowa particularly hard where more than 15 ethanol plants are already making cellulosic ethanol derived from corn kernel fiber in their facilities, but because of the delays in registration they are unable to receive the D3 cellulosic RIN they are entitled to under the law. As a result of losing out on the D3 RIN, plants in my state have lost out on up to $65 million in economic value that would greatly benefit our rural communities and farmers during this time of uncertainty for the agricultural industry.

a. Will the EPA begin reviewing and approving new registration applications for cellulosic ethanol derived from corn kernel fiber under the existing peer-reviewed processes used prior to November 2017?
b. What steps will the agency take to restart the review process of these registrations after a 15-month delay?

Senator Gillibrand

97. ***OLEM/OW:*** PFAS pollution has been linked to very serious health problems. Drinking water contamination from these chemicals in the village of Hoosick Falls, New York, and at least 172 other communities across the county, has been linked to a number of cases of cancer and thyroid disease. The Department of Health and Human Service's PFAS study released in June of last year revealed that the minimal risk level for human exposure to two types of PFAS chemicals, PFOA and PFOS, should be seven to ten times lower than the level previously recommended as safe by the EPA. In the EPA's new PFAS management plan submitted to the Office of Management and Budget, what level of human exposure to PFAS does the EPA recommend as safe?

98. ***OW:*** In the EPA's PFAS Management plan, what cleanup standard has been put in place to ensure the effective and timely remediation of PFAS chemicals in communities in New York and across the country?

99. ***OW/OCSPP:*** If confirmed, will you commit to increase transparency about PFAS chemicals by adding those chemicals to the Toxic Release Inventory?

100. ***OW:*** When will the EPA begin the process of establishing an enforceable standard for PFAS under the Safe Drinking Water Act?

101. ***OLEM:*** It is my understanding that the EPA is close to making a decision on whether to issue a certificate of completion for the remedial actions carried out by General Electric under its consent decree for the Hudson River Superfund site. I am very concerned that the EPA may issue the certificate of completion despite the EPA's own acknowledgement in its draft 5-year review report that the remedy is not yet protective of human health and the environment. In December, the New York State Department of Environmental Conservation (NYSDEC) released a report based on extensive sampling, and found that in many instances, there has not been a significant decline in PCB concentrations in the Hudson River and its ecosystems.

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The National Oceanic and Atmospheric Administration, the U.S. Fish and Wildlife Service, and New York State—the three Natural Resource Trustees for the Hudson River—all have stated publicly that the cleanup is incomplete and that it will take decades longer than projected by the EPA for the river to meet the numeric goals of the 2002 Record of Decision. Will you hold off on issuing the Certificate of Completion until the numeric goals of the Record of Decision have been met and the remedy is protective of human health and the environment?

102. ***OLEM:*** Will you meet with relevant local stakeholders before you decide whether to issue the Certificate of Completion to have a more complete discussion of this issue?

103. ***AO/OAR:*** Have you personally read the Fourth National Climate Assessment?

104. ***AO/OAR:*** To date, how many briefings or discussions have you had with EPA employees on the topic of the Fourth National Climate Assessment since it was released in November?

105. ***AO/OAR:*** Have you been personally briefed by the EPA scientists and career staff who participated in the drafting and preparation of the Fourth National Climate Assessment?

106. ***AO/OAR:*** Please list all individuals not currently employed by the EPA that you have discussed the Fourth National Climate Assessment with, including but not limited to, members of the White House staff and other Administration officials, lobbyists, and business executives.

107. ***OAR:*** In your opinion, what are the key actionable findings for the EPA in the Fourth National Climate Assessment?

    a. How do you intend to incorporate those findings into EPA you decision making should you be confirmed?

108. ***OAR:*** As Acting Administrator, what specific actions have you taken to date in response to the Fourth National Climate Assessment?

109. ***OAR:*** Is protecting the lives of pregnant women and children from mercury poisoning is an "appropriate and necessary" role for the EPA?

110. ***OAR:*** How is EPA calculating the benefits of protecting the health of pregnant women and children from mercury poisoning in its cost-benefit analysis for the proposed changes to Mercury and Air Toxics Standards?

111. ***OAR:*** Do avoided harms associated with a rulemaking, including reduced childhood development delays, need to be monetized to count as part of a cost-benefit analysis?

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112. ***OAR:*** In evaluating the costs of a rulemaking, do you believe that externality costs – for example costs to society and public health costs from impacts of a pollutant -- should be considered in addition to the financial costs of compliance?

113. ***OCFO:*** Will you support continued funding for the EPA's geographic programs, including the Long Island Sound Study and Great Lakes Restoration Initiative?

114. ***OAR:*** The interstate transport of ozone and particulate matter is a serious environmental and public health problem in New York. Cross-state air pollution contributes to death and illness in our state and damages our natural resources. Such pollution generated in upwind states also interferes with New York's ability to meet its legal obligation to attain the national standards set by EPA.

    a. What impacts will the Clean Air Act regulatory actions taken by the EPA during the Trump Administration have on ozone and cross-state air pollution on downwind states like New York?
    b. What is the scientific basis for your response to (a)?

Senator Markey:

115. ***OCSPP:*** As part of the recent revamp of the Toxic Substances Control Act (TSCA), the EPA received the specific authority to address high-risk uses of three extremely dangerous chemicals: trichloroethylene (TCE), methylene chloride, and N-methyl pyrrolidone (NMP). The Obama Administration proposed to ban several uses of these chemicals outright in 2016, but neither you nor former Administrator Pruitt have put a single one of these bans into effect.

    a. Yes or no, does methylene chloride pose a danger to workers, like painters and builders, who handle that chemical?
    b. Can you commit to ensuring that everyone is protected from this deadly chemical by finalizing the exact ban proposed by the EPA two whole years ago—which has yet to be done, even after Scott Pruitt publicly promised to do so?

116. ***ORD/OCSPP:*** The EPA Integrated Risk Information System (IRIS) program completed revisions of its formaldehyde assessment in the fall of 2017. In reports accompanying the Consolidated Appropriations Act of 2017, both chambers of Congress directed that the agency contract with the National Academy of Sciences (NAS) to conduct an external peer review of the revised IRIS formaldehyde assessment. Accordingly, EPA has already provided $1 million to the NAS for this purpose. The January 2018 EPA IRIS report to Congress indicated that "IRIS plans to deliver an External Review of its Formaldehyde Assessment for public comment and peer review in FY18." I have repeatedly inquired about the status of the IRIS formaldehyde assessment and repeatedly requested that EPA advance the assessment to finalization—a process that involves intra- and inter-agency review, external peer review by the NAS, and public comment.

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a. Will the IRIS program continue to work on and finalize its formaldehyde assessment? If not, why not?
b. Please provide the timeline and agenda items that will allow EPA to complete the remaining steps in the review process for the revised IRIS formaldehyde assessment.
    i. When will the agency initiate the intra-agency review process?
    ii. When will the agency initiate the inter-agency review process?
    iii. When will the agency release the revised assessment for public comment and peer review?
    iv. When will EPA finalize the IRIS formaldehyde assessment?
c. Will you commit to providing the revised IRIS formaldehyde assessment to NAS for peer review by no later than the end of calendar year 2019?
d. Please explain why formaldehyde is absent from the 2018 IRIS Program Outlook.
e. Please explain the process used to develop the 2018 IRIS Program Outlook, from first inception to completion. In your response, please identify the program and regional offices, including the names of specific individuals, consulted or otherwise involved. Please also identify any other organizations and specific individuals consulted or otherwise involved.

117. ***AO/ORD:*** To what extent, when, and in what capacity was David Dunlap, Deputy Assistant Administrator for Research and Development in EPA's Office of Research and Development, involved in the development of the 2018 IRIS Program Outlook? Please be very specific.

118. ***OAR:*** Mr. Wheeler, you wrote in your testimony that "[t]here is no more important responsibility than protecting human health and the environment."

a. Would the proposed Mercury and Air Toxics Standards (MATS) rule you proposed result in less mercury being emitted from power plants, yes or no?

119. ***OP/ORD:*** The Harvard "Six Cities" study, which linked air pollution and mortality risk, is a key study used in assessing many air quality regulations. In 2011, the EPA estimated that the control of particulate air pollution saved 160,000 lives in 2010, and that it will save 230,000 lives in 2020.

a. Under the EPA's proposed "Strengthening Transparency in Regulatory Science" rule, would the EPA be able to use the Six Cities study?
b. As Administrator, do you see any danger in moving forward with the "Strengthening Transparency in Regulatory Science" rule and eliminating the use of studies like the Six Cities study?

120. ***ORD:*** Do you commit to allowing EPA scientists to continue to conduct research free from political interference and communicate with the public about their findings, including discussing it at conferences and with the media?

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121. ***ORD:*** At a recent meeting of the EPA Clean Air Scientific Advisory Committee (CASAC), multiple members of CASAC expressed doubt that they had the scientific experience to manage reviewing the science on particulate matter, which includes divergent scientific fields from epidemiology, to toxicology to data science to instrumentation.

    a. Do you still believe that this CASAC has the requisite expertise to provide you with advice on particulate matter?
    b. Epidemiology is a key subject for assessing the health impacts of particulate matter such as early death and cardiovascular illness, yet not a single epidemiologist is on CASAC. How can CASAC adequately assess the science on particulate and health, when its members do not have expertise in key fields like epidemiology and when there is no particulate matter review panel?
    c. Has CASAC consulted with outside experts on PM and ozone standards? If so, with whom?

122. ***OGC:*** Under the Whistleblower Protection Enhancement Act of 2012, any non-disclosure agreement, whether written or oral, must include statutory language notifying employees of their whistleblower rights.

    a. How does the EPA consistently make its employees aware of this right? Please provide examples.
    b. If there was an official finding, internally or externally, that a whistleblower was retaliated against by a member of your staff for a lawful disclosure, how would you respond and what consequences would you recommend that the retaliator face?

<u>Senator Merkley:</u>

123. ***OAR:*** In 2009 the EPA issued under its Clean Air Act authority a science-based finding that greenhouse gas emissions endanger public health and welfare. This finding was made after a long public comment period with thousands of comments received and considered.

    In *Massachusetts v. EPA*, the Supreme Court held that "greenhouse gases fit well within the Clean Air Act's capacious definition of 'air pollutant,'" and noted that the Act defines "welfare" similarly broadly to include effects on weather and climate. EPA has issued a request for comment on developing a new endangerment finding under Section 111(b) of the Clean Air act for "an already listed category" of pollutant. Revisiting this process would be unprecedented.

    Will you commit to respecting the previous scientific process and commit to not revisiting the EPA's 2009 greenhouse gas endangerment and contribution findings?

124. ***OAR:*** The Mercury and Air Toxics Standards (MATS) have been tremendously successful and that utilities have already invested significant resources towards abating this type of pollution, and support keeping the standard in place.

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But on December 28th, the EPA, under your leadership, said it was no longer "appropriate and necessary" to regulate mercury and toxic air pollution from coal- and oil-fired plants.

In the *Michigan vs. EPA* case in 2015, the Supreme Court ruled that the EPA should have considered the costs at the same time that it decided whether it is was "appropriate and necessary" to regulate hazardous air emissions from power plants. The EPA complied with the ruling by submitting a Supplemental Finding in 2016 to the MATS rule, which examined industry costs and public health benefits.

Under the Trump Administration, the EPA then chose to reopen this Supplemental Finding and focus on attempting to undermine this vital health protection. You claimed that this done under the Supreme Court's mandate.

Please state the exact legal mandate that directs the EPA to revise the MATS rule that was not fulfilled by the EPA's Supplementation Finding in 2016.

125. ***OAR:*** You further stated that the Clean Power Plan was withdrawn in compliance with the courts. However, the Supreme Court has never issued a determination on the legality of the Clean Power Plan. Instead, the Supreme Court simply stopped implementation while litigation continued. It has three times upheld the EPA's authority to set limits on carbon pollution.

Additionally, the Affordable Clean Energy plan proposed has been shown by the study "The Affordable Clean Energy Rule and the Impact of Emissions Rebound on Carbon Dioxide and Criteria Air Pollutant Emissions" published in *Environmental Research Letters*, to potentially increase pollution in certain states.

Please provide the EPA's analysis showing the impacts on individual plants and state level emissions.

If EPA career staff disagree with the findings of the *Environmental Research Letters* study, I ask that you provide the scientific and cost-benefit justification for the disagreement.

126. ***OAR:*** In the New Source Performance Standards (NSPS), EPA reduced requirements on monitoring fugitive methane emissions. The EPA finds it would increase the leakage of methane by 380,000 short tons and additionally allow increases in the release of VOCs and other harmful air pollutants.

Why were the increases in VOC and other harmful air pollutants not included in the cost-benefit analysis?

127. ***OAR:*** Numerous studies including "Aerial Surveys of Elevated Hydrocarbon Emissions from Oil and Gas Production Sites" published in *Environmental Science and Technology*,

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and "Assessment of methane emissions from the U.S. oil and gas supply chain" published in *Science* have shown methane leak rates to be higher than EPA accounts for.

Given this fact, what is the justification for weakening these standards?

If the methane emissions leak rate of 2-3% were used, instead of the 1.4% EPA currently uses, what would be the impact on this rule and other methane emissions rules?

128. ***OAR:*** In 2014, the EPA created the "electric pathway" under the RFS program to accelerate the adoption of electric vehicles, the development of charging infrastructure, and the production of biogas electricity by allowing for the creation of "electric-RINs" or "E-RINs".

Since the program's creation, no E-RIN applications for this pathway have been approved, and there are at least six applications pending. These applications have been submitted by vehicle manufacturers, charging stations, and third party clearinghouses, many of whom have been waiting years to receive a decision from your agency.

Does EPA plan to address an electric RIN-generation program in the near future?

Will you commit to addressing this backlog and giving these applicants a response within 90 days?

129. ***OAR:*** The EPA has proposed a rulemaking that will modify applicable volume targets for cellulosic biofuel, advanced biofuel, and total renewable fuels for the years 2020-2022. As part of this rulemaking, the agency will also be proposing volume requirements for biomass-based diesel for 2021 and 2022. This proposed rulemaking includes several regulatory amendments designed to provide clarity and increase opportunities for renewable fuel production.

Can you explain the method by which the EPA intends to clarify or make changes to those existing regulations?

In addition, can you confirm whether EPA intends to include clarifications to the regulations related to existing alternative pathways for advanced and cellulosic biogas?

130. ***OCSPP:*** The updated Toxic Substances Control Act (TSCA) is supposed to regulate thousands of chemicals used industrially, and in an array of consumer products like paint, cleaning products, mattresses, clothes, insulation, and more. But under both former Administrator Pruitt and under your leadership, the Environmental Protection Agency has taken every opportunity to undermine, not enhance, chemical safety.

In evaluating whether a new chemical might pose an unreasonable risk, the law requires EPA to rigorously review both the intended use of the new chemical and any future uses that are "reasonably foreseen," per the definitions of the conditions of use.

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However, the EPA announced in 2017 that the TSCA new chemical review process would not include a consideration of the chemical safety risk across all uses of a new chemical, and instead would allow new chemicals to enter the marketplace after considering only the intended uses identified by the industry applicant

Isn't this in direct contravention of what the law requires?

131. ***OCSPP:*** Chemicals are often used for purposes that were never initially considered by the original manufacturer. Research has linked exposure to the chemicals in this now ubiquitous product to health effects ranging from reduced fertility to hormone disruption and DNA damage.

I'm concerned that, rather than evaluating the risk a new chemical may pose in the future, EPA is considering only the potential risk from the uses that the first manufacturer of the chemical initially identifies, even though if that chemical is allowed on the market on that basis without any conditions, other manufacturers are likely to use the chemical for other purposes.

Under this approach, EPA would never consider the combined risks from both intended and other reasonably foreseen uses of the chemical. This could result in a failure to address all of the potential risks of the new chemical, and inadequate protection of human health and the environment.

How do you plan on prioritizing EPA resources to ensure that chemical reviews are implemented as required by TSCA?

If confirmed, will you commit to including in both new and existing chemical risk evaluations ALL reasonably foreseeable future uses of chemicals under review?

132. ***OCSPP:*** Recently, there have been a number of actions taken by the EPA that undermine resource allocation and implementation of the TSCA reform. The final fee rule establishes the "user fees" Congress authorized EPA to collect from chemical manufacturers and processors to help defray EPA's costs for implementing TSCA. This rule dramatically underestimates costs and lets the industry get away without paying its fair share.

In that fee rule, the agency grossly underestimated not only the costs of reviewing Confidential Business Information claims, but entirely excluded its costs to provide ready access to CBI required under the new TSCA to state governments and other qualified persons, or to provide public access to information that does not qualify for protection from disclosure.

If confirmed to lead the EPA, will you commit to prioritizing sound TSCA implementation by fighting for full funding for the agency, maintenance of and support for the Office of Research and Development's scientific work relevant to the TSCA program, and funding and staffing levels necessary to carry out the statute in a balanced way?

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133. ***OCSPP:*** Asbestos is a known carcinogen that has been banned in more than 60 countries, because there is no safe or controlled use of asbestos.

Would you agree that there is no safe or controlled use of asbestos?

134. ***OCSPP:*** EPA has proposed a significant new use rule (SNUR) for asbestos that opens the door to resuming several uses of asbestos that ended many years ago.

Instead, would you commit to opposing the asbestos SNUR and permanently banning all uses of asbestos under section 6 of TSCA?

135. ***OCSPP:*** Millions of people are still exposed to asbestos every single day, in schools, commercial buildings, construction sites, factories, and homes. Yet EPA's ongoing asbestos risk evaluation does not account for the existing presence and ongoing use of asbestos.

Do you support EPA's decision to ignore this risk by removing it from the scope of the risk evaluation?

Will you pledge to work with this Committee to include legacy use and exposure in EPA's ongoing risk evaluation?

136. ***OCSPP:*** The risk evaluation also excludes several types of cancer and lung disease, along with all exposure to asbestos resulting from its release into the environment. Think about the thousands of first responders exposed to asbestos dust after the tragedies of September 11th, 2001, and the resulting cases of lung cancer and mesothelioma. That type of exposure is being excluded from EPA's evaluation.

Will you commit to removing these exclusions, and instead conducting a thorough and comprehensive evaluation?

137. ***OCSPP:*** The semiconductor industry in Oregon is a major employer and economic driver. Approximately 24,000 Oregonians are employed in the semiconductor industry, and it is the state's largest export.

Several Oregon companies have expressed concern about the shutdown and the potential impact it could have on the review and approval of specialized chemicals needed for semiconductor manufacturing. The industry relies on EPA approval of chemicals with specific functional and performance attributes in its highly advanced and complex manufacturing operations.

The primary family of chemicals that has triggered concern for companies in my state are known as onium compounds, which are primarily used as photoacid generators in the photolithography process used to manufacture semiconductors. Some of these chemicals are currently in use, some of them are under evaluation. In some cases, chemicals are

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approved for a temporary period of time (e.g., 6 months), and there is a risk that this period may expire without EPA having the ability to extend the approval.

What is EPA doing to assure these companies and the public that new chemicals are being reviewed in a timely manner and that time-limited approvals will not lapse during this shutdown?

138. ***OLEM/OMS:*** The Office of Land and Management, which oversees cleanup of toxic Superfund sites, is currently down from 468 staffers to 3.

Has Superfund site monitoring or oversight been impacted or diminished in any way during the government shutdown as compared to the same time period last year?

139. ***OLEM:*** In 2017, EPA adopted a cleanup plan for the Portland Harbor Superfund site in my home state of Oregon, one of the largest sites currently on the EPA's National Priorities List.

In response to intense lobbying from two Potentially Responsible Parties of contamination at the site, EPA has proposed weakening the cleanup standards for the entire cleanup based on a new estimate of cancer risks from a single contaminant – benzo-a-pyrene, a polycyclic aromatic hydrocarbon or PAH – even though other contaminants still persist at the site.

EPA is making this change with incomplete information, before any testing, monitoring, or design is completed for the project – which may reveal additional need for strong cleanup standards. Furthermore, the cleanup plan already provides for a five-year technical review process whereby this new risk assessment can be considered, alongside other public health concerns, to properly weigh whether reduced cleanup is necessary.

Why is the EPA weakening Superfund cleanup standards at the Portland Harbor Superfund site, thereby exposing the public to greater health risks, without the bare minimum information including: baseline monitoring data, an analysis of how this change will increase health risks from fish and clam consumption, or any analysis of cumulative risks posed by the chemical cocktail in the Harbor?

Does the Portland Harbor Superfund site remain a priority for EPA and are you committed to ensure that adequate resources exist for the Agency to support remediation efforts undertaken by PRPs at the site?

140. ***OAR:*** Last year, EPA and NHTSA released a proposal to roll back the Corporate Average Fuel Economy (CAFE) standards. The proposal would freeze fuel efficiency standards, even though many automakers have already invested in technology research and investment. It would also undermine states' abilities to set higher standards for themselves. And it would result in a drastic increase in carbon pollution.

In order to boost fuel efficiency, at least 1,200 U.S. facilities and 288,000 American workers are building parts and materials. U.S. automakers have invested nearly $64

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billion in these facilities. Your proposal would put these investments, these factories, and these workers in jeopardy.

Will you commit to working with the states that have their own rules in place and NOT preempting those states that maintain stricter standards?

141. ***OAR:*** Based on the sources you have consulted, please describe the scientific consensus on the role of climate change and its relation to more severe wildfire seasons.

142. ***OAR:*** In your testimony, you said you would "continue to read the literature" regarding the causes of catastrophic wildfires. I submit the following articles, including the National Climate Assessment, for your review, which find that climate change has increased the area burned in the Western United States:

    a. Vose, J.M., D.L. Peterson, G.M. Domke, C.J. Fettig, L.A. Joyce, R.E. Keane, C.H. Luce, J.P. Prestemon, L.E. Band, J.S. Clark, N.E. Cooley, A. D'Amato, and J.E. Halofsky (2018). "Forests." In *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment, Volume II* [Reidmiller, D.R., C.W. Avery, D.R. Easterling, K.E. Kunkel, K.L.M. Lewis, T.K. Maycock, and B.C. Stewart (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 232–267. doi: 10.7930/NCA4.2018.CH6.
    b. Abatzoglou, J. T., & Williams, A. P. (2016). Impact of anthropogenic climate change on wildfire across western US forests. *Proceedings of the National Academy of Sciences*, 113(42), 11770-11775.
    c. Keeley, J., & Syphard, A. (2016). Climate change and future fire regimes: examples from California. *Geosciences*, 6(3), 37.
    d. Keyser, A., and A. L. Westerling. (2017). Climate drives inter-annual variability in probability of high severity fire occurrence in the western United States. *Environmental Research Letters*, 12(6), 065003.
    e. Davis, R., Yang, Z., Yost, A., Belongie, C., & Cohen, W. (2017). The normal fire environment—Modeling environmental suitability for large forest wildfires using past, present, and future climate normals. *Forest Ecology and Management*, 390, 173-186.

After reading these articles, do you still believe that climate change has a limited role in the changing patterns of wildfires, including longer, more severe wildfire seasons?

Senator Rounds:

143. ***OAR:*** Acting Administrator Wheeler, under the RFS, the EPA is granted expanded discretionary authority to set volume obligations after 2022. If confirmed, you very well may be leading the EPA at that particular point in time.

    a. In your professional opinion, what is the range of discretionary authority granted to the EPA after 2022?
    b. How do you anticipate conventional corn ethanol being impacted after 2022?

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c. We need a thriving biofuels industry for a variety of national security reasons, including energy independence and diversity. Do you believe that Congress needs to consider statutory changes to account for the negative possibilities post-2022?

144. ***OCSPP:*** Mr. Wheeler, our trade partners are currently deciding how they will approach the use of gene editing in agriculture. To minimize the chance of trade disruptions, it's critical that the U.S. government have a consistent position across agencies that we can encourage other nations adopt. Will EPA collaborate with USDA and FDA in a timely manner to develop a consistent position? Moreover, is this a matter we can expect EPA to commit sufficient resources to moving forward?

Senator Sanders:

Vermont

145. ***OW:*** In my questions for the record for the hearing to consider your nomination for EPA Deputy Administrator, I asked whether you would commit to continuing the EPA's support for the clean-up of phosphorus in Lake Champlain through the Total Maximum Daily Load (TMDL) standard that the agency established in 2016. You responded that you would "work within the appropriations levels provided to the EPA by Congress."

In your time thus far at the EPA, have you found the appropriations levels provided to the EPA by Congress to be sufficient to ensure that the EPA's Clean Water Act obligations are satisfied in regard to phosphorus levels in Lake Champlain? If so, please provide a timeline for when the EPA will fulfil its obligations under the TMDL. If not, please describe the funding amounts and specific areas for which congressional appropriations have been insufficient to fulfil the EPA's Clean Water Act obligations, as well as your plan for requesting sufficient funds in the EPA's FY2020 budget request.

Climate Change

146. ***OAR:*** In November 2018, the U.S. Global Change Research Program released the Fourth National Climate Assessment (Assessment). Do you agree with the Assessment's findings that climate change will cause the following impacts?

If so, please describe how the EPA has factored in each impact to its decision-making in regard to each of the 33 deregulatory actions the EPA has taken under the Trump administration.

a. An increase in extreme weather that is expected to damage infrastructure, ecosystems, and social systems, particularly impacting communities and people that were already vulnerable.

b. A decrease in quality and quantity of water available for people and ecosystems due to intensifying droughts, heavy downpours, reduced snowpack, and poor surface water quality.

c. An increased risk of waterborne and foodborne diseases, heat-related deaths, allergic illnesses, vector-borne diseases, and mental health degradation, which are expected to have the greatest impact on older adults, children, low-income communities and communities of color.

d. A negative impact on the economic, cultural, and physical well-being of Indigenous peoples.

e. Degradation of our ecosystems and their services, such as "…clean air and water, protection from coastal flooding, wood and fiber, crop pollination, hunting and fishing, tourism, and cultural identities."

f. Declining crop yields, worsening livestock health, and decreasing economic vitality of rural communities.

g. An increase in power outages, fuel shortages, and service disruptions due to increased stress on our already aging and deteriorating infrastructure.

h. A continued trend of "rising water temperatures, ocean acidification, retreating arctic sea ice, sea level rise, high-tide flooding, coastal erosion, higher storm surge, and heavier precipitation events [that] threaten our oceans and coasts."

i. A reduction in outdoor economies across the United States.

147. ***AO:*** During this hearing, I asked you whether you agreed or disagreed with President Trump that climate change is a "hoax." You responded by saying that you have not used the word "hoax" yourself. I took that to mean that you do in fact disagree with President Trump's characterization that climate change is a hoax, but I want to ask again, just to be clear: Do you agree with President Trump that climate change is a hoax? Please provide your answer in the form of a "yes" or "no."

148. ***OAR:*** During this hearing, I asked whether you are concerned by rising sea levels. You responded that rising sea levels are a concern and that you believe in adaptation (but not mitigation) "absent additional congressional authority." The Supreme Court in *Massachusetts v. EPA* found that the EPA does in fact have statutory authority, and indeed a statutory obligation, to regulate the carbon dioxide emissions that cause climate change.

Given that the EPA does in fact have congressional authority to mitigate climate change by regulating carbon dioxide emissions, would you like to alter your testimony?

Given that the EPA does in fact have congressional authority, and indeed a statutory obligation, to mitigate the causes of climate change, please provide your plan, including a timeline, for issuing regulations on greenhouse gases to bring the United States in line with carbon pollution emissions reduction targets prescribed by the Intergovernmental Panel on Climate Change's "Global Warming of 1.5°C" report.

Clean Power Plan Replacement

149. ***OAR:*** On August 21, 2018, the EPA released its proposal to repeal the Clean Power Plan. By the EPA's own estimates, this plan would drastically increase carbon and other pollution emissions from power plants as well as cause as many as 1,400 additional premature deaths, 48,000 new cases of asthma, and 21,000 new missed school days each year compared to the Clean Power Plan. In order to justify this new, weaker rule, the EPA altered its cost-benefit analysis methodology to minimize the new rule's projected damages to the environment and public health. This methodology is described in the EPA's regulatory impact analysis "Regulatory Impact Analysis for the Proposed Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Unites; Revisions to Emission Guideline Implementing Regulations; Revisions to New Source Review Program."

    One way in which the EPA's analysis was altered was to ignore the health effects from direct exposure to sulfur dioxide, nitrogen dioxide, and hazardous air pollutants like mercury and hydrogen chloride. According to the EPA's regulatory impact analysis, the EPA did not include these factors in its proposal to repeal the Clean Power Plan due to "data, resource, and methodological limitations," despite their clear negative health impacts.

    Given that the EPA's failure to properly consider these factors clearly violates its mission to protect human health and the environment, as well as its statutory obligation under the Clean Air Act to protect and improve the nation's air quality, please describe your plan, including a timeline, for withdrawing the EPA's proposal to repeal the Clean Power Plan.

Toxics

150. ***OW/OCSPP/OP:*** Elevated and unsafe levels of perfluoroalkyl substances (PFAS) have been found in hundreds of sites and at least one municipal water system in Vermont, and have contaminated public water and other natural resources for an estimated 16 million people nationally.

    In June 2018, the Agency for Toxic Substances and Disease Registry (ATSDR) released a draft study concerning the health effects of PFAS, including, but not limited to, effects on the growth, learning, and behavior of children, increased cholesterol levels, and increased risk of cancer. Prior to the study's release, Politico reported that officials from the White House, the Office of Management and Budget, the EPA, and the Department of Defense intervened to delay the release of the study in order to avoid a "public relations nightmare." I joined with several of my Senate colleagues in writing to then-Administrator Pruitt to request information on the EPA officials who intervened in order to delay the release of the ATSDR study. He responded by stating that the EPA did not have authority to release the ATSDR study, which is an answer that did not adequately respond to my concerns. Regardless of the EPA's authority to release or not release ATSDR studies, were you aware of any EPA officials making efforts to delay the release of this ATSDR study? If so, please provide all internal documents and communications in

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your agency's possession regarding any internal deliberations or discussions about this study for the record. If you are confirmed, will you commit to ensuring that the EPA does not engage in any activities which seek to delay the public release of scientific studies and reports?

151. ***OW:*** The ATSDR study found that minimal risk levels for certain PFAS chemicals in drinking water should be significantly lower than the EPA's lifetime health advisory level of 70 parts per trillion. Based on the levels identified in the ATSDR study, please explain your plan, including a timeline, for updating the EPA lifetime health advisory level to comport with this new science on the effects of PFAS on human health.

152. ***OW:*** Several states, including my home state of Vermont, have set health advisories for drinking water containing PFAS chemicals that are significantly more stringent than the EPA's lifetime health advisory level. The most recent update to the Toxic Substances Control Act (TSCA) contained a provision that protects states that had more stringent standards on the books before April 22, 2016 (Sec. 13 State-Federal Relationship, 15 USC § 2617(e)(1)(A)). If confirmed, will you commit to avoiding any actions that would preempt states' ability to enforce health advisory levels for PFAS enacted before April 22, 2016 that are more stringent than the EPA's standards? If you will not make this commitment, please explain why you believe that TSCA prevents states from enforcing more stringent requirements the state had established before April 22, 2016.

153. ***OW:*** According to the EPA website, the EPA expected to release a PFAS management plan by the Fall of 2018. During this hearing, you stated that the release of the plan has been further delayed by the current partial government shutdown. However, the plan was clearly also delayed by other factors given that the partial government shutdown did not begin until late December. Please describe all the factors, beside the current partial government shutdown, that have caused the EPA to fall behind schedule in developing this plan to address the presence of toxic PFAS chemicals in communities throughout the country.

154. ***OW:*** Given that the EPA's current budget to manage PFAS is clearly insufficient to carry out the work needed to craft the PFAS management plan, please describe your plan to increase the EPA's FY2020 budget request relative to FY2019 to ensure that it can release the PFAS management plan a timely manner.

155. ***OCSPP:*** In April 2017, the EPA decided against continuing the work of the previous administration to ban the pesticide chlorpyrifos, which poisons farm workers, children and rural communities. Chlorpyrifos is toxic and can cause neurodevelopmental harms in children and prenatal exposure can cause lower birth weight, reduced IQ, loss of working memory, attention disorders, and delayed motor development. No amount of it is safe in our food or drinking water. Based on the EPA's mission to protect human health and the environment, please outline the EPA's plan, including a timeline, to establish a ban on chlorpyrifos.

Native Rights

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156. ***OITA:*** The Fourth National Climate Assessment projects that Indigenous peoples will suffer some of the worst impacts of climate change due to their dependence on natural resources for their livelihoods and economies. As our natural resources dwindle, many Indigenous peoples may be forced to relocate, risking their cultural and community continuity. Please describe your plan for meeting Indigenous peoples' economic and environmental needs, particularly as they pertain to the preservation of natural resources and tribal treaty rights.

157. ***OITA:*** The EPA's "Policy on Consultation and Coordination with Indian Tribes: Guidance for Discussing Tribal Treaty Rights" requires the EPA to respect tribal treaty rights, which in part means consulting with any tribes which may be impacted by the actions of the federal government.

Please describe the specific actions you have taken, as both EPA Deputy Administrator and Acting EPA Administrator, to ensure that tribes have been consulted and that their input is reflected in the actions taken by the EPA.

Please list the individuals and their affiliation with whom you have met or consulted during your time as both EPA Deputy Administrator and Acting EPA Administrator regarding tribal treaty rights.

If confirmed, will you commit to consulting with tribes regarding all EPA actions which may impact tribal treaty rights, lands, culture, and natural resources? If you will not make this commitment, why are you willing to violate the EPA's policy on tribal treaty rights?

Clean Water Rule

158. ***OW:*** On December 11, 2018, the EPA proposed a revised definition to "Waters of the United States," which would effectively repeal what is popularly known as the "Clean Water Rule." Given that the EPA's proposal will put almost 117 million Americans' water supply at risk, which runs counter to the EPA's mission to protect human health and the environment, please provide a plan, including a timeline, for withdrawing the EPA's proposed repeal of the Clean Water Rule.

Senator Shelby:

159. ***OAR:*** The Consolidated Appropriations Act of 2018 included language directing the Secretaries of Energy and Agriculture and the Administrator of the Environmental Protection Agency to establish clear and simple policies that reflect the carbon-neutrality of forest bioenergy and recognize biomass as a renewable energy source provided the use of forest biomass does not cause the conversion of forests to non-forest use. I appreciate the EPA issuing guidance in April 2018 stating that future EPA regulatory actions for energy production from stationary sources will recognize biomass from managed forests as carbon neutral. I also appreciate the tri-agency statement in October 2018 affirming these principles.

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Mr. Wheeler, would please provide an update on the EPA's progress towards implementing a regulation on carbon neutrality of biomass?

Senator Van Hollen:

160. ***OW:*** Last week on January 10th, Energy and Environment Daily reported on some of the trickle down impacts of the shutdown on the functions of the EPA. In that article, Lisa Feldt of the Chesapeake Bay Foundation noted her concerns with the looming deadline in April of this year for the next step in Chesapeake Bay TMDL implementation—the third and final round of watershed implementation plans. Do you expect the EPA to be able to meet this critical April deadline for the Chesapeake Bay if the shutdown continues?

161. ***OECA:*** Last week on January 9th, the New York Times reported that the EPA has furloughed most of its roughly 600 pollution inspectors and other workers who monitor compliance with environmental laws. These staff are responsible for detecting violations that endanger human health.

These pollution inspections halted on December 24, 2018.

Eric Schaeffer, a Maryland resident and former Director of EPA enforcement, has said that the shutdown from Dec 16, 1995 to Jan 6, 1996 lead to one of the worst years ever at the EPA in terms of numbers of inspection and enforcement; and that it bogged down EPA inspections for months—not just up until the government reopened.

If the shutdown ends the day you submit your answers to these questions for the record, what impact do you expect the shutdown to have on the number of inspections and enforcement actions the EPA is able to conduct compared to a non-shutdown scenario? What will be the impact if the shutdown continues for another 30 days after the date you submit your answers to these questions for the record?

162. ***OMS/OCFO:*** A New York Times article from December 2017 found that at that time, over 700 employees had left the EPA since the beginning of the Trump Administration as they are disheartened by the Agency's direction. Of the employees who had quit, retired or taken a buyout package, more than 200 are scientists. An additional 96 are environmental protection specialists, a broad category that includes scientists as well as others experienced in investigating and analyzing pollution levels. Most of the employees who have left are not being replaced. Agency staff said they believed the Trump administration was purposely draining the EPA of expertise and morale.

What is the impact of the drain of scientists out of the EPA in terms of the Agency's long-term abilities to develop and use the best available science? What will the impact of this loss of scientific expertise be on the Agency's ability to protect public health?

How do you plan—if confirmed as EPA Administrator—to make your employees feel valued and boost the alarmingly low morale at your Agency? In which areas, if any, will the Agency prioritize hiring of new employees?

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ORD: EPA announced a plan to reorganize the Agency, which includes a plan to eliminate the Agency's science adviser office and merge it into a division in the Office of Research and Development, which EPA claims is a move to "streamline" the Agency. Why would this move not diminish the role of science in decision-making at the EPA?

163. ***OAR:*** As you know, under the *Clean Air Act*, both the EPA and the state of California have authority to regulate greenhouse gas emissions from the tailpipe. Under Section 177 of this act, states can choose, as twelve have done to date, to adopt California's standards in lieu of federal requirements.

Maryland is one of 12 states that follow California's lead on their 2022-2025 fuel economy standards.

The proposed rule that EPA released last year challenges the authority of states like Maryland to regulate emissions from vehicles in order to force a nationwide rollback of fuel economy and vehicle emission standards. This proposed revocation of California and the 12 states' authority is opposed by Maryland's Governor Larry Hogan. On October 26, 2018, Maryland Secretary for the Department of the Environment Ben Grumbles wrote you a letter in which he stated, "Maryland supports the principals of cooperative federalism and urges the agencies not to limit California's authority to adopt or enforce motor vehicle emissions standards or any other state's ability to adopt California's standards."

Can you commit today not to finalize clean car standards that attack state leadership on clean cars, either by revoking California's waiver to enforce its existing 2022-25 standards, or asserting that the Energy Policy and Conservation Act preempts state clean car standards?

164. ***OECA:*** Environmental enforcement numbers have decreased since the end of the Obama Administration. One reason for this is that no enforcement engineer or officer has been replaced in any of the 10 Regions.

How do you plan to ensure EPA enforcement is taking place while there are very few inspectors, enforcement officers and lawyers in place to bring enforcement cases in the regional offices? How will you work to address gaps in enforcement staff and initiate the hiring process?

165. ***OCSPP:*** Can you walk through the scientific method that, if confirmed, you would want the EPA to use for risk evaluations under TSCA to determine if chemicals have an unreasonable risk and should be regulated? My understanding is that EPA is currently working on draft risk evaluations for 10 chemicals including asbestos and 1-4 Dioxane.

Will EPA be using the Systematic Review framework for TSCA--even though scientists warn that it favors industry science? Will the EPA review include <u>all</u> uses, including

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reasonably foreseeable and legacy uses, in both new and existing chemical risk evaluations?

166. ***OAR/OP:*** Regarding the MATS rule, in determining that it is no longer "appropriate and necessary" to require power plants to reduce their mercury and air toxic emissions, EPA has decided to base this decision only on some of the quantifiable benefits and all of the costs to industry. The costs EPA uses is also woefully out of date, about two times higher than actual costs. It seems to me that EPA is breaking the "arbitrary and capricious" test by ignoring the co-benefits and other benefits the agency cannot quantify. Under what legal basis, did EPA decide to ignore co-benefits and benefits like reducing birth defects and cancer rates when determining "appropriate and necessary"?

167. ***OAR:*** As most people know, mercury is a neurotoxin that effects the most vulnerable, children in the womb. Other air toxics like formaldehyde, arsenic and beryllium have long been known to cause cancer. Since you have determined that it is not "appropriate and necessary" to reduce our nation's largest sources of mercury and air toxics through its MATS proposal, does that mean you believe there is a safe level of mercury exposure for developing infants? If so, what are those levels? Is there a safe level of exposing children to carcinogens? If so, what are those levels?

Senator Whitehouse:

168. ***OAR:*** When we met in my office on January 15, you told me that your proposed rule to freeze the fuel economy and greenhouse gas (GHG) emissions standards for cars and light trucks would actually result in less carbon pollution in certain years than under the existing standards. You repeated this claim at your confirmation hearing.

However, according to your own rule, GHG emissions would rise under your proposal compared to the existing standards. This predicted increase in GHG emissions is discussed on Federal Register pages 43326 through 43330 of your proposed rule.
Please cite to me any support in EPA's proposal for your statements that EPA's proposal would result in reduced GHG emissions compared to the existing standards. Note: please do not tell me what your experts may have told you; I am asking you to provide references from EPA's proposed rule that support your claim that EPA's proposal would reduce GHG emissions compared to the existing standards.

169. ***OAR:*** You also told me in our meeting that EPA's proposed rule to replace the Clean Power Plan (CPP) would result in almost exactly the same reduction in carbon pollution as the CPP. You repeated this claim at your confirmation hearing.

However, according EPA's proposed rule as printed in the Federal Register , GHG emissions would be higher under your proposal than under the CPP. This predicted increase in GHG emissions is discussed on page 44784.
Please cite to me any support in EPA's proposal for your statements that your proposal would result essentially the same GHG emissions reductions as the CPP. Note: please do not tell me what your experts may have told you; I am asking you to provide me

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references from EPA's proposed rule that support your claim that EPA's proposal would result in the same GHG emissions reductions as the CPP.

170. ***AO:*** How many meetings with Trump administration officials for Bob Murray and/or Murray Energy did you arrange, attempt to arrange, and/or attend?

171. ***AO:*** Please list, with date, time, and people present (as applicable) every meeting with the Trump administration you arranged, attempt to arrange, and/or attended with or on behalf of Bob Murray and/or Murray Energy? Please also provide the time, date, and people present for any preparation sessions for such meeting(s).

172. ***AO:*** At how many of these meetings was the Murray "action plan" discussed?

173. ***AO:*** You told me at your first confirmation hearing on Nov. 8, 2017 that you didn't remember where you saw the Murray "action plan" and you didn't remember the context in which it was discussed. Do you stand by that answer today? If not, please correct the record.

174. ***AO:*** EPA announced that this June it will finalize amendments to the 2015 Coal Ash Rule, which incorporate elements of EPA's March 2018 proposal to weaken the protective standards of the rule, including eliminating the rule's nationwide cleanup standards. In March 2017, you met with Secretary Perry to discuss the Murray action plan which, among other things, proposed a complete suspension of the 2015 coal ash rule. The plan was accompanied, by six draft Executive Orders for President Trump that would further rescind coal safeguards. One Executive Order directed immediate suspension of the "operation and implementation" of the Coal Ash Rule, directed EPA to attempt to stop ongoing litigation against the agency concerning the rule, and instruct the EPA to amend the rule to prohibit citizen suits to enforce the rule.

    a. Are you familiar with this Executive Order? ("Presidential Executive Order on Restoring the Rule of Law, Federalism, Economic Growth, and Reducing Regulatory Costs by Reviewing the Final Rule on Disposal of Coal Combustion Residuals from Electric Utilities (the "CCR Rule"), Published on April 17, 2015 By the United States Environmental Protection Agency, 80 Fed. Reg. 21302 (2015)")
    b. Did you write or review this Executive Order?
    c. If so, do you believe that you should recuse yourself from further review and oversight over EPA's efforts to weaken the Coal Ash Rule?

175. ***AO/OGC:*** The following questions relate to federal ethics laws and regulations:

    a. President Trump promised to end corruption in Washington. Would you agree that applying and enforcing federal ethics laws and regulations, and the Trump "Ethics Pledge," are important tools to do that?
    b. This is the second time you've come before the Senate for advice and consent. Would it be fair to say that by now you are personally familiar with federal ethics requirements?

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c. Are you aware that federal regulations and the Trump "Ethics Pledge" prohibit political appointees from working on particular matters on which they previously represented clients as well as from meeting with former clients?
d. If you learned that an EPA employee violated federal ethics regulations or the Trump "Ethics Pledge," would you take this matter seriously?
e. Do you promise to take all steps within your power to ensure that EPA employees abide by all applicable ethics requirements? Does that include disciplining employees who violate those requirements as appropriate?

176. ***AO:*** Did you ever bundle, solicit, or gather donations for any 501(c)(4), 527, political action committee, or any other outside spending group? If so, list the organizations by name, the dates during which you engaged in this activity, and the approximate amounts you raised.

177. ***AO:*** Do you commit to provide all information responsive to the previous question to EPA ethics officials so they can assess whether that activity raises conflicts of interest or an appearance that you cannot conduct your duties impartially?

178. You and I have discussed the serious economic risks of climate change the last two times we have met. I have provided you with numerous reports and articles detailing these risks.

a. ***AO/OW/OAR:*** The first of these economic risks is the risk of a coastal real estate crash. This is what Freddie Mac, the federal home mortgage backer, has to say about climate risk:

"[R]ising sea levels and spreading flood plains nonetheless appear likely to destroy billions of dollars in property and to displace millions of people. The economic losses and social disruption may happen gradually, but they are likely to be greater in total than those experienced in the housing crisis and Great Recession."

This is what the Union of Concerned Scientists has to say:
"In the coming decades, the consequences of rising seas will strain many coastal real estate markets – abruptly or gradually, but some eventually to the point of collapse – with potential reverberations throughout the national economy."

This is what the insurance industry trade magazine *Risk & Insurance* has to say:

"These bellwether locations [Miami, Atlantic City, and Norfolk] signify a growing and alarming threat; that continually rising seas will damage coastal residential and commercial property values to the point that property owners will flee those markets in droves, thus precipitating a mortgage value collapse that could equal or exceed the mortgage crisis that rocked the global economy in 2008."
Freddie Mac estimates that between $238 billion and $507 billion worth of real estate will be below sea level by 2100, and UCS estimates that nearly 2.5 million residential and commercial properties worth $1.07 trillion will be at risk of

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chronic flooding by 2100. The First Street Foundation studied the impact of rising seas and increased flooding on real estate in the southeast, and found that coastal real estate in the southeast has already lost $7.4 billion in value since 2005 because of sea level rise.
Many of the rollbacks you've proposed since assuming the helm at EPA – freezing automobile fuel economy and greenhouse gas emissions standards, replacing the Clean Power Plan, weakening methane leak inspection and repair standards, weakening carbon pollution emission standards for new power plants – would all result in increased carbon pollution compared to the regulatory regimes they are designed to replace.
Did you consider the potential for a coastal property real estate crash and the associated economic costs when considering these proposals? If so, please cite to me where in these proposed rules or in the accompanying regulatory impact analysis this is discussed. If not, why did you not consider this serious economic risk when designing these proposals?

b. ***AO/OW/OAR:*** The second of these economic risks is the risk of a carbon bubble. This is what Mark Carney, the Governor of the Bank of England has to say:
"The exposure of UK investors, including insurance companies, to [stranded assets] is potentially huge."
This is what the head of insurance supervision at the Bank of England has to say:
"As the world increasingly limits carbon emissions, and moves to alternative energy sources, investments in fossil fuels and related technologies [...] may take a huge hit."
This is what academics at University College London have written:
"Our results suggest that, globally, a third of oil reserves, half of gas reserves and over 80 per cent of current coal reserves should remain unused from 2010 to 2050 in order to meet the target of 2 degrees Celsius."
This is what academics at Cambridge have written:
"Our conclusions support the existence of a carbon bubble that, if not deflated early, could lead to a discounted global wealth loss of US$1 – 4 trillion, a loss comparable to the 2008 financial crisis."
Many of the rollbacks you've proposed since assuming the helm at EPA – freezing automobile fuel economy and greenhouse gas emissions standards, replacing the Clean Power Plan, weakening methane leak inspection and repair standards, weakening carbon pollution emission standards for new power plants – would all result in increased carbon pollution compared to the regulatory regimes they are designed to replace.
Did you consider the potential for a carbon bubble and the associated economic costs when considering these proposals? If so, please cite to me where in these proposed rules or in the accompanying regulatory impact analysis this is discussed. If not, why did you not consider this serious economic risk when designing these proposals?

179. ***OP/ORD:*** Are there any circumstances under which written EPA protocols for selecting members of EPA's various science advisory boards should be departed from? If so, please

describe the circumstances that would justify departing from established member selection protocols.

180. ***OCSPP:*** Dr. Nancy Beck is currently overseeing the implementation of the reformed TSCA legislation. Dr. Beck has developed her own systematic review process for assessing the quality of the scientific studies upon which it will rely to determine the safety of the chemicals it reviews. The first chemical to undergo a risk evaluation under the reformed TSCA is Pigment Violet 29 (PV29). In its draft risk assessment, EPA concluded that PV29 is safe.

    EPA's draft risk assessment's conclusion that PV29 is safe relied in part on two studies by German chemical giant BASF. These studies were conducted in 1976 and 1978. Using Dr. Beck's systematic review process, EPA concluded that these two studies were of "medium" quality. Yet BASF, in a regulatory filing with the European Chemicals Agency, admitted that these same studies were "not reliable."

    a. Should EPA's risk assessments be relying on studies whose own industry sponsors admit that they are "not reliable?"
    b. Why was Dr. Beck allowed to create her own systematic review process for the TSCA program?
    c. Why was EPA's own IRIS-developed systematic review process, which has been positively reviewed by the National Academies, not adopted for use for the TSCA program?
    d. Will you commit to me that going forward, the TSCA program will not use any systematic review process that has not first been examined by the National Academies?

181. ***OAR:*** In a final rule published in 2014, EPA approved a new cellulosic biofuel pathway that allows producers additional options to comply with the standard. EPA deemed that charging electric vehicles with renewable electricity derived from cellulosic biogas would create cellulosic biofuel credits, and several companies applied to EPA to get approval under this new pathway (known as the "e-rin" pathway). EPA in late 2016, held an additional comment period to identify and solicit comment on how to administer the e-rin pathway to avoid double counting as well as address other complexities. Since the 2016 rule, the EPA has over two years to review several pending applications and has yet to take any administration action. In my meeting with you, you discussed that there are several outside groups interested in generating the RIN and thus it's a complicated issue. I agree, but that doesn't mean that EPA should not put dedicated staff toward figuring out this issue and providing guidance on how to develop e-rins under the RFS.

    a. Has EPA reviewed the comments from the 2016 proposed rule on how to successfully administer this pathway? If so, why has EPA not taken an action in 2 years to clarify necessary changes if they are needed?
    b. If the pathway was originally approved in 2014 and EPA has already finished a public comment on how to administer the pathway, why has EPA not been able to develop a mechanism to administer the program in nearly 5 years?

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c. Do you commit to having staff work on developing a credit transfer program, to avoid double counting, and review the 40+ applications that have been pending for e-rins at EPA since 2016?

182. ***OAR:*** EPA has an important role in supporting the growth of biofuels, thereby adding diversity to the nation's fuel mix within the transportation sector. EPA's work is especially important within the advanced and cellulosic fuels markets where advances in technologies have the potential to bring important new low-carbon fuels to the market.

Last August, when you testified before this Committee, you committed to providing "certainty within EPA programs" in order to be a better partner with the private sector, as appropriate, in order to provide the clarity and transparency it needs to grow and create jobs.

While work on several efforts related to biofuels are currently being processed within EPA, one effort which remains unresolved and where uncertainty remains is the work related to biointermediates.

As you may know, the Environmental Protection Agency initiated work to address this topic via EPA-HQ-OAR-2016-0041-0196 in May of 2015. A proposed rule was published in November, a public meeting was held in December 2016, and the comment period closed in February 2017. While additional issues beyond the topic of biointermediates were included in EPA-HQ-OAR-2016-0041-0196, a wide range of entities and comments were submitted in support of providing certainty for biointermediates.

To date though, action on the specific issue of biointermediates has not moved forward and the lack of progress has added uncertainty into this segment of the renewable transportation fuel market.

In the proposed rule, the Environmental Protection Agency noted that it may be "preferable for economic or practical reasons for renewable biomass to be subjected to substantial pre-processing at one facility before being sent to a different facility where it is converted into renewable fuel." The Environmental Protection Agency also noted that biointermediates will "likely provide an important component of the growth in renewable fuel production in the future, particularly for advanced and cellulosic biofuels," and proposed "changes in the RFS regulations to clearly specify requirements that apply when renewable fuel is produced through sequential operations at more than one facility."

a. First, given that the Environmental Protection Agency issued a proposed rule regarding biointermediates in 2016 and has since received and reviewed more than forty comments relating to the biointermediates proposal, has the Environmental Protection Agency considered moving forward and providing certainty on the matter of biointermediates in 2019?
b. Second, should you be confirmed, can you provide any certainty whether the Environmental Protection Agency will successfully incorporate biointermediates into one of the pending proposed rules in the unified regulatory agenda on renewable fuels such as the pending rulemaking which proposes modifying the applicable volume targets for cellulosic biofuel, advanced biofuel, and total renewable fuel for the years 2020 – 2022, especially since the abstract for that

rule states that it will cover volume modifications, as well as "several regulatory amendments designed to provide clarity and increase opportunities for renewable fuel production."

183. ***OP:*** Do you think there should be a standardized social cost of carbon? Is the social cost of carbon greater than zero dollars per metric ton? If so, what is the most accurate social cost of carbon in 2018 and what is the best way to calculate this number?

184. ***AO/OAR:*** Do you agree with the majority of scientists that anthropogenic climate change is happening?

   a. If so, do you agree there are costs to inaction as well as costs to action?
   b. Do you believe the American public should have to pay for the costs of inaction—the storm damaged homes, lost crops, and failing fisheries?
   c. Do you believe that these costs of inaction have a value that can be calculated? Is the value greater than zero?

185. ***OP:*** A 2007 legal challenge prompted the courts to direct the government to further quantify the costs and benefits of a ton of carbon pollution in federal government rulemakings. Specifically, the U.S. Court of Appeals for the 9th Circuit agreed that in quantifying the benefit of cutting carbon pollution but admonished that the value is "certainly not zero."[16] The Court asked National Highway Traffic Safety Administration to do a new rule that addressed this issue. This court decision led the Bush and Obama Administrations to further refine a value for the SCC. Do you reject this decision? If so, please explain why and how that affects how you approach your responsibilities.

186. ***OP:*** In 2009, the Obama administration created an interagency working group (IWG) in an effort to create a governmental value for the social cost of carbon, which based its calculations on peer-reviewed economic models and expert opinions. The models included in their analysis were the Dynamic Integrated Climate-Economy (DICE)[17], Policy Analysis of the Greenhouse Effect (PAGE)[18], Climate Framework for Uncertainty, Negotiation and Distribution (FUND)[19], and World Induced Technical Change Hybrid (WITCH)[20] models. The IWG was comprised of scientists and economists from the Office of Management Budget, the Council for Environmental Quality, the National Economic Council, the EPA, the U.S. Department of Agriculture, Energy, Transportation, and Treasury.

   a. Can you discuss whether you think the models used by the IWG are appropriate and credible tools for calculating the social cost of carbon?
   b. Can you comment on whether the IWG was comprised of the right governmental stakeholders and actors?

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[16] *Center for Biological Diversity v. National Highway Traffic Safety Administration*, 508 F.3d 508, U.S. Court of Appeals for the 9th Circuit (2007), available at http://caselaw.findlaw.com/us-9th-circuit/1024716.html.
[17] Dynamic Integrated Climate-Economy model (DICE), http://www.econ.yale.edu/~nordhaus/homepage/dicemodels.htm
[18] Policy Analysis of the Greenhouse Effect (PAGE), http://climatecolab.org/resources/-/wiki/Main/PAGE
[19] The Climate Framework for Uncertainty, Negotiations and Distribution (FUND), http://www.fund-model.org/
[20] World Induced Technical Change Hybrid model (WITCH), http://www.witchmodel.org/

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187. ***OP:*** On March 28, 2017, the President issued a Presidential Executive Order on Promoting Energy Independence and Economic Growth, which disbanded the IWG, withdrew the guidance it issued, and reverted to OMB Circular A-4 of September 17, 2003 (Regulatory Analysis). This in effect requires each agency to estimate the value of changes in greenhouse gas emissions resulting from regulations. Do you believe the regulatory process will be more effective and efficient in the absence of unified guidance on how to monetize the value of changes in greenhouse gas emissions? How does this advance the value of regulatory certainty you claim to support?

188. ***OP:*** Part of the social cost of carbon calculation assumes a value for discount rates. The IWG after reviewing past OMB guidance recommended using a 3% discount rate[21].

    a. Do you have an opinion on what the discount rate value should be when calculating the social cost of carbon?
    b. Scientific research has found that it would be more accurate to use a declining discount rate instead of a fixed one. Do you agree that a declining discount rate would be more accurate?
    c. Do you have an opinion on what the discount rate value should be used for inter-generational impacts?
    d. Why should one generation discount the impact of harms upon another generation at all?

189. ***OP/OITA:*** Is it appropriate for a cost-benefit analysis to consider the harm caused in other countries from pollution emitted in the United States? If not, please explain why.

190. ***OITA/OW:*** What projects, both domestically and internationally, are EPA staff and contractors engaged in to combat marine debris?

191. ***OW/OLEM/OCSPP:*** Is EPA undertaking any studies or analyses investigating the public health risks of microplastics, microfibers, and other plastic waste?

192. ***OW/OLEM:*** What opportunities exist through the EPA's Clean Water Act and/or Resource Conservation and Recovery Act authorities to improve waste management, study and mitigate the effects of plastic waste pollution in waterways and the ocean, and support waste reduction, improved recycling, and cleanup efforts?

193. ***OITA/OW/OLEM:*** Does EPA require any additional authorities to export its technical expertise and best practices to foreign partners and priority countries in need of assistance in improving its waste management practices to minimize marine debris?

    a. Can EPA currently undertake its own bilateral discussions, or must it go through the State Department or USAID to develop these relationships?

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[21] Interagency Working Group on Social Cost of Greenhouse Gases, *Technical Support Document*, pp. 15–16.

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194. ***OCSPP:*** When approving chemicals and other components or end plastic products, does EPA currently consider the longevity of those materials in the environment and the potential harm they can cause as they degrade?

195. ***OITA/OW:*** Does EPA regularly participate in the Interagency Marine Debris Coordinating Committee? If so, who attends from EPA?

196. ***OITA:*** What role have you personally and as a representative of the U.S. taken in international, multilateral gatherings, like the G7, G20, ASEAN, UNEP, and other summits, to make marine debris a priority topic? Have any new partnerships, agreements, or knowledge exchanges come out of these meetings?

197. ***OW:*** In May 2015, EPA released a 423-page technical support document outlining the legal and scientific basis for the agency's Clean Water Rule. Will EPA release a similar document to support its legal reasoning behind the agency's new proposed "Waters of the U.S." definition, especially given the definition depends solely upon Justice Scalia's opinion in *Rapanos,* a position without judicial precedent?

198. ***OW:*** Will EPA extend the comment period on its new proposed definition of "Waters of the U.S." given the partial government shut down? If so, for how long and when will this be announced?

199. ***OW:*** Why was only one listening session scheduled? How was Kansas City, KS selected as the site of this one listening session?

200. ***OW:*** Has EPA revisited its estimate of the benefits of wetland mitigation since its June 2017 economic analysis for the proposed definition of "Waters of the U.S."? If not, does it have plans to do so before the rule is finalized?

Senator Wicker:

201. ***OW:*** Under the Clean Water Act, EPA has jurisdiction over the discharge of substances into a water of the United States. As such, the agency has oversight of offshore aquaculture projects, along with other agencies such as the U.S. Army Corps of Engineers and NOAA. Will you commit to working with the agencies that are responsible for regulating offshore aquaculture to ensure that this industry has greater regulatory certainty in federal waters?

202. ***OCSPP:*** The Pesticide Registration Improvement Act (PRIA) was first enacted in 2004 to provide dedicated funds to EPA to evaluate the safety and efficacy of antimicrobials, sanitation products, and pesticides. This legislation has been reauthorized twice by unanimous consent or voice votes in the House and Senate, which indicates that there is strong bipartisan support and a lack of controversy for this statute. However, the most recent reauthorization failed to reach the President's desk before the end of the 115th Congress.

    a. How important is PRIA to EPA's mission?

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b. If Congress does not reauthorize PRIA, what will the impact be on EPA staffing and budgets? What will the impact be on manufacturers of these products whose EPA registration is effectively a license to operate?

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Message

From: Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]
Sent: 2/22/2019 3:53:51 PM
To: Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]
Subject: FW: Input Required: Wheeler Floor Debate
Attachments: Andrew Wheeler - EPA Deputy Administrator Nominee - UPDATED - Background Document.pdf

Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

From: Frye, Tony (Robert)
Sent: Friday, February 22, 2019 10:44 AM
To: Lyons, Troy <lyons.troy@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>; Ross, David P <ross.davidp@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Dunn, Alexandra <dunn.alexandra@epa.gov>; Wright, Peter <wright.peter@epa.gov>; Konkus, John <konkus.john@epa.gov>; Dunlap, David <dunlap.david@epa.gov>; McIntosh, Chad <mcintosh.chad@epa.gov>; Greaves, Holly <greaves.holly@epa.gov>; Bolen, Brittany <bolen.brittany@epa.gov>; Bodine, Susan <bodine.susan@epa.gov>; White, Elizabeth <white.elizabeth@epa.gov>
Cc: Jackson, Ryan <jackson.ryan@epa.gov>; Molina, Michael <molina.michael@epa.gov>; Ringel, Aaron <ringel.aaron@epa.gov>; Rodrick, Christian <rodrick.christian@epa.gov>; Voyles, Travis <Voyles.Travis@epa.gov>; Brazauskas, Joseph <brazauskas.joseph@epa.gov>
Subject: RE: Input Required: Wheeler Floor Debate

Hello All – Following up on this request to bring it to the top of your inbox. I've attached the document we assembled for Administrator Wheeler's Deputy nomination for reference. If possible, please have your points available by 2pm so I can assemble for review this weekend. Let me know if you have any questions.

Thanks,
Tony

Tony Frye
Special Advisor
Office of Congressional Affairs
Environmental Protection Agency
Cell: 202.603.3225

From: Lyons, Troy
Sent: Wednesday, February 20, 2019 4:53 PM

To: Wehrum, Bill <Wehrum.Bill@epa.gov>; Ross, David P <ross.davidp@epa.gov>; Leopold, Matt (OGC) <Leopold.Matt@epa.gov>; Dunn, Alexandra <dunn.alexandra@epa.gov>; Wright, Peter <wright.peter@epa.gov>; Konkus, John <konkus.john@epa.gov>; Dunlap, David <dunlap.david@epa.gov>; McIntosh, Chad <mcintosh.chad@epa.gov>; Greaves, Holly <greaves.holly@epa.gov>; Bolen, Brittany <bolen.brittany@epa.gov>; Bodine, Susan <bodine.susan@epa.gov>; White, Elizabeth <white.elizabeth@epa.gov>
Cc: Jackson, Ryan <jackson.ryan@epa.gov>; Molina, Michael <molina.michael@epa.gov>; Frye, Tony (Robert) <frye.robert@epa.gov>; Ringel, Aaron <ringel.aaron@epa.gov>; Rodrick, Christian <rodrick.christian@epa.gov>; Voyles, Travis <Voyles.Travis@epa.gov>; Brazauskas, Joseph <brazauskas.joseph@epa.gov>
Subject: Re: Input Required: Wheeler Floor Debate

Adding Susan and Beth

Sent from my iPhone

On Feb 20, 2019, at 4:23 PM, Lyons, Troy <lyons.troy@epa.gov> wrote:

Internal and Deliberative

Deliberative Process / Ex. 5

Please let me know if you have any questions or wish to discuss further.

Many thanks,

Troy

Troy M. Lyons
Associate Administrator
Office of Congressional & Intergovernmental Relations
U.S. Environmental Protection Agency
Personal cell / email (cell)

Message

From: Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]
Sent: 1/11/2019 8:49:39 PM
To: Shaw, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31ca1476a7674825a131cb2c0d6c88c8-BShaw03]; Gunasekara, Mandy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=53d1a3caa8bb4ebab8a2d28ca59b6f45-Gunasekara,]
Subject: Fwd: QFR Planning
Attachments: 2019.1.2 -FINAL Wheeler QFRs 08.01.2018.pdf; ATT00001.htm; Administrator Wheeler SEPW Hearing QFR - Attachment - Question 52b - EPCRA EMISSIONS REPORTING response.pdf; ATT00002.htm; Administrator Wheeler SEPW Hearing QFR - Attachment - Question 73b - Wehrum Recusal - 08.01.2018.pdf; ATT00003.htm; Attachement Wheeler SEPW Hearing QFR - Attachement - Question 59a - 2018 08 24 LeanTrack Inventory.xls.xlsx; ATT00004.htm

Deliberative Process / Ex. 5

Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

Begin forwarded message:

From: "Lyons, Troy" <lyons.troy@epa.gov>
To: "Jackson, Ryan" <jackson.ryan@epa.gov>, "Ross, David P" <ross.davidp@epa.gov>, "Wehrum, Bill" <Wehrum.Bill@epa.gov>, "Wright, Peter" <wright.peter@epa.gov>, "McIntosh, Chad" <mcintosh.chad@epa.gov>, "Bolen, Brittany" <bolen.brittany@epa.gov>, "Bodine, Susan" <bodine.susan@epa.gov>, "Leopold, Matt (OGC)" <Leopold.Matt@epa.gov>, "Greaves, Holly" <greaves.holly@epa.gov>, "Darwin, Henry" <darwin.henry@epa.gov>, "Beck, Nancy" <Beck.Nancy@epa.gov>, "Baptist, Erik" <Baptist.Erik@epa.gov>, "Gunasekara, Mandy" <Gunasekara.Mandy@epa.gov>, "Dunlap, David" <dunlap.david@epa.gov>
Cc: "Richardson, RobinH" <Richardson.RobinH@epa.gov>, "Palich, Christian" <palich.christian@epa.gov>, "Frye, Tony (Robert)" <frye.robert@epa.gov>, "Rodrick, Christian" <rodrick.christian@epa.gov>, "Voyles, Travis" <Voyles.Travis@epa.gov>, "Ringel, Aaron" <ringel.aaron@epa.gov>, "Molina, Michael" <molina.michael@epa.gov>, "Forsgren, Lee" <Forsgren.Lee@epa.gov>, "Wildeman, Anna" <wildeman.anna@epa.gov>, "Woods, Clint" <woods.clint@epa.gov>, "Schwab, Justin" <Schwab.Justin@epa.gov>, "Fotouhi, David" <Fotouhi.David@epa.gov>, "Konkus, John" <konkus.john@epa.gov>, "Grantham, Nancy" <Grantham.Nancy@epa.gov>, "Abboud, Michael" <abboud.michael@epa.gov>, "Block, Molly" <block.molly@epa.gov>, "Hewitt, James" <hewitt.james@epa.gov>, "Beach, Christopher" <beach.christopher@epa.gov>
Subject: QFR Planning

Deliberative Process / Ex. 5

Tentative QFR Timeline

Deliberative Process / Ex. 5

Troy M. Lyons
Associate Administrator
Office of Congressional & Intergovernmental Relations
U.S. Environmental Protection Agency
Personal cell / email (cell)

Message

From: Wehrum, Bill [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=33D96AE800CF43A3911D94A7130B6C41-WEHRUM, WIL]
Sent: 4/12/2019 3:40:08 PM
To: Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Idsal, Anne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b1beca8121fb47a08e82b6bf2247a79b-Idsal, Anne]
Subject: FW: REGS CBI Fed Register notice is live

Deliberative Process / Ex. 5

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

From: Lyons, Troy
Sent: Friday, April 12, 2019 11:36 AM
To: Wehrum, Bill <Wehrum.Bill@epa.gov>
Cc: Idsal, Anne <idsal.anne@epa.gov>; Woods, Clint <woods.clint@epa.gov>
Subject: RE: REGS CBI Fed Register notice is live

Deliberative Process / Ex. 5

From: Wehrum, Bill
Sent: Friday, April 12, 2019 11:33 AM
To: Lyons, Troy <lyons.troy@epa.gov>
Cc: Idsal, Anne <idsal.anne@epa.gov>; Woods, Clint <woods.clint@epa.gov>
Subject: FW: REGS CBI Fed Register notice is live

fyi

_____
Bill Wehrum
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency
(202) 564-7404

From: Hengst, Benjamin
Sent: Friday, April 12, 2019 11:32 AM
To: Dominguez, Alexander <dominguez.alexander@epa.gov>; Woods, Clint <woods.clint@epa.gov>; Wehrum, Bill <Wehrum.Bill@epa.gov>
Cc: Millett, John <Millett.John@epa.gov>; Grundler, Christopher <grundler.christopher@epa.gov>
Subject: REGS CBI Fed Register notice is live

Just a heads-up that the FR notice is up on the website (we signed it yesterday and it's on way to FR office already).

I spoke with all the various stakeholders this morning (USDA, API, AFPM, Growth, RFA, NBB, DOE, small refinery coalition) and the calls went fine.

Links:

RFS announcements (1st item): https://www.epa.gov/renewable-fuel-standard-program/news-notices-and-announcements-renewable-fuel-standard

REGS rule page, additional resources (1st item): https://www.epa.gov/renewable-fuel-standard-program/proposed-renewables-enhancement-and-growth-support-regs-rule#additional-resources

Message

From: Johnson, Laura-S [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=DEA46EDADAA04F2C847D3245F8F5847C-LJOHNS06]
Sent: 3/21/2019 2:38:32 PM
To: Wheeler, Andrew [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=17a1669ef5b54fba8cb457845308787e-Wheeler, An]; Jackson, Ryan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=38bc8e18791a47d88a279db2fec8bd60-Jackson, Ry]; Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Shaw, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31ca1476a7674825a131cb2c0d6c88c8-BShaw03]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Harlow, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b5a9a34e31fc4fe6b2beaddda2affa44-Harlow, Dav]; Lyons, Troy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=15e4881c95044ab49c6c35a0f5eef67e-Lyons, Troy]; Bennett, Tate [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1fa92542f7ca4d01973b18b2f11b9141-Bennett, El]; White, Elizabeth [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f8af641a6306479c9026142ef3b02bd7-White, Eliz]; Bodine, Susan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8c2cc6086fcc44c3be6b5d32b262d983-Bodine, Sus]; Leopold, Matt (OGC) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4e5cdf09a3924dada6d322c6794cc4fa-Leopold, Ma]; Bolen, Brittany [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=31e872a691114372b5a6a88482a66e48-Bolen, Brit]; Molina, Michael [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=d19c1d68da1a4587866e1850f22a6ae5-Molina, Mic]; Darwin, Henry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ae8e9d24eeb4132b25982e358efbd9d-Darwin, Hen]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]; Konkus, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=555471b2baa6419e8e141696f4577062-Konkus, Joh]; Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; Benevento, Douglas [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=93dba0f4f0fc41c091499009a2676f89-Benevento,]
CC: Wooden-Aguilar, Helena [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=991ab84f64be4b6b9dd10a68c81887b0-HAWodd]; Grantham, Nancy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=12a3c2ed7158417fb0bb1b1b72a8cfb0-Grantham, Nancy]; Richardson, RobinH [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2fa5c9eb65dc497c81a8dc9ccdb1ffa7-Richardson, RobinH]; Lewis, Josh [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b22d1d3bb3f84436a524f76ab6c79d7e-JOLEWIS]; Hope, Brian [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c27b55619fb248cc8776fc46cd3f8b0d-BHope]; Lovell, Will (William) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3b150bb6ade640f68d744fadcb83a73e-Lovell, Wil]; Iglesias, Amber [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ed1da89f33f24b5b9f2c4b9bcf91a2ad-Iglesias, A]; Kime, Robin [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7ef7b76087a6475b80fc984ac2dd4497-RKime]; Nickerson, William [/o=ExchangeLabs/ou=Exchange Administrative Group

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[/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=78e63acc248f41328768db82d95464c3-JBOWLES]

Subject: SIGNED: Title V petition order, PNG Wadesboro Compressor Station, North Carolina

Attachments: Title V petition response Wadesboro NC 03-20-2019.pdf

Good morning,

Yesterday afternoon, the Administrator signed an order responding to a petition requesting objection to the issuance of a Title V operating permit issued by the North Carolina Department of Environment and Natural Resources (now the Department of Environmental Quality) to the PNG Wadesboro Compressor Station in North Carolina. The petition, dated September 15, 2014 and filed by Pee Dee Water Air Land and Lives and the Blue Ridge Environmental Defense League, claims the following issues: lack of public hearing, emissions were underestimated, inadequate basis for opacity monitoring, and need for environmental justice impact analysis.

Today's Order denies all petition claims, and therefore denies the petition requesting that the Administrator object to this particular Tile V permit.

Attached is the signed and dated Order. For your convenience, please go to p. 11 for the Administrator's signature.

Please contact me if you have any questions regarding this email.

Sincerely,
Laura

Laura S. Johnson | U.S. Environmental Protection Agency
Special Assistant, Office of the Administrator | Cell: Ex. 6
Office (202) 566-1273 | johnson.laura-s@epa.gov

BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF	)	PETITION NO. IV-2014-13
	)	
PIEDMONT NATURAL GAS, INC.	)	ORDER RESPONDING TO
WADESBORO COMPRESSOR STATION	)	PETITION REQUESTING
ANSON COUNTY, NORTH CAROLINA	)	OBJECTION TO THE ISSUANCE OF
PERMIT NO. 10097T01	)	TITLE V OPERATING PERMIT
	)	
ISSUED BY THE NORTH CAROLINA DEPARTMENT OF	)	
ENVIRONMENT AND NATURAL RESOURCES	)	
	)	

ORDER DENYING A PETITION FOR OBJECTION TO PERMIT

I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) received a petition dated October 3, 2014, (the Petition) from Pee Dee Water Air Land and Lives and the Blue Ridge Environmental Defense League (the Petitioners), pursuant to section 505(b)(2) of the Clean Air Act (CAA or Act), 42 U.S.C. § 7661d(b)(2). The Petition requests that the EPA Administrator object to operating permit No. 10097T01 (the Permit) issued by the North Carolina Department of Environment and Natural Resources (NCDENR)[1] to the Piedmont Natural Gas, Inc. Wadesboro Compressor Station (PNG Wadesboro or the facility) in Anson County, North Carolina. The operating permit was issued pursuant to title V of the CAA, CAA §§ 501–507, 42 United States Code) U.S.C. §§ 7661–7661f, and 15A N.C.A.C. 2Q.0500–0528. *See also* 40 Code of Federal Regulations (C.F.R.) part 70 (title V implementing regulations). This type of operating permit is also referred to as a title V permit or part 70 permit.

Based on a review of the Petition and other relevant materials, including the Permit, the permit record, and relevant statutory and regulatory authorities, and as explained further below, the EPA denies the Petition requesting that the EPA Administrator object to the Permit.

II. STATUTORY AND REGULATORY FRAMEWORK

A. Title V Permits

Section 502(d)(l) of the CAA, 42 U.S.C. § 766la(d)(1), requires each state to develop and submit to the EPA an operating permit program to meet the requirements of title V of the CAA and the

[1] Subsequent to NCDENR's issuance of the Permit and the Petitioners' submittal of this Petition, NCDENR was reorganized and the agency responsible for issuing air permits is now the NC Department of Environmental Quality (NCDEQ). This Order will refer to the older nomenclature (NCDENR), given that this was the entity that issued the Permit on which the Petition is based.

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EPA's implementing regulations at 40 C.F.R. part 70. NCDENR submitted a title V program governing the issuance of operating permits on November 12, 1993. The EPA granted interim approval in 1995 and full approval of the North Carolina title V operating permit program in 2001. 60 Fed. Reg. 57357 (November 15, 1995); 66 Fed. Reg. 45941 (August 31, 2001). This program, which became effective on October 1, 2001, is codified in 15A N.C.A.C. 2Q.0500–0528.

All major stationary sources of air pollution and certain other sources are required to apply for title V operating permits that include emission limitations and other conditions as necessary to assure compliance with applicable requirements of the CAA, including the requirements of the applicable implementation plan. CAA §§ 502(a), 504(a), 42 U.S.C. §§ 7661a(a), 7661c(a). The title V operating permit program generally does not impose new substantive air quality control requirements, but does require permits to contain adequate monitoring, recordkeeping, reporting, and other requirements to assure compliance with applicable requirements. 57 Fed. Reg. 32250, 32251 (July 21, 1992); *see* CAA § 504(c), 42 U.S.C. § 7661c(c). One purpose of the title V program is to "enable the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements." 57 Fed. Reg. at 32251. Thus, the title V operating permit program is a vehicle for compiling the air quality control requirements as they apply to the source's emission units and for providing adequate monitoring, recordkeeping, and reporting to assure compliance with such requirements.

B. Review of Issues in a Petition

State and local permitting authorities issue title V permits pursuant to their EPA-approved title V programs. Under CAA § 505(a), 42 U.S.C. § 7661d(a), and the relevant implementing regulations found at 40 C.F.R. § 70.8(a), states are required to submit each proposed title V operating permit to the EPA for review. Upon receipt of a proposed permit, the EPA has 45 days to object to final issuance of the proposed permit if the EPA determines that the proposed permit is not in compliance with applicable requirements under the Act. CAA § 505(b)(1), 42 U.S.C. § 7661d(b)(1); *see also* 40 C.F.R. § 70.8(c). If the EPA does not object to a permit on its own initiative, any person may, within 60 days of the expiration of the EPA's 45-day review period, petition the Administrator to object to the permit. CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

The petition shall be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided by the permitting authority (unless the petitioner demonstrates in the petition to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objection arose after such period). CAA § 505(b)(2), 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). In response to such a petition, the Act requires the Administrator to issue an objection if a petitioner demonstrates that a permit is not in compliance with the requirements of the Act. CAA § 505(b)(2), 42 U.S.C.

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§ 7661d(b)(2); 40 C.F.R. § 70.8(c)(l).[2] Under section 505(b)(2) of the Act, the burden is on the petitioner to make the required demonstration to the EPA.[3]

The petitioner's demonstration burden is a critical component of CAA § 505(b)(2). As courts have recognized, CAA § 505(b)(2) contains both a "discretionary component," under which the Administrator determines whether a petition demonstrates that a permit is not in compliance with the requirements of the Act, and a nondiscretionary duty on the Administrator's part to object where such a demonstration is made. *Sierra Club v. Johnson*, 541 F.3d at 1265–66 ("[I]t is undeniable [that CAA § 505(b)(2)] also contains a discretionary component: it requires the Administrator to make a judgment of whether a petition demonstrates a permit does not comply with clean air requirements."); *NYPIRG*, 321 F.3d at 333. Courts have also made clear that the Administrator is only obligated to grant a petition to object under CAA § 505(b)(2) if the Administrator determines that the petitioner has demonstrated that the permit is not in compliance with requirements of the Act. *Citizens Against Ruining the Environment*, 535 F.3d at 677 (stating that § 505(b)(2) "clearly obligates the Administrator to (1) determine whether the petition demonstrates noncompliance and (2) object *if* such a demonstration is made" (emphasis added)).[4] When courts have reviewed the EPA's interpretation of the ambiguous term "demonstrates" and its determination as to whether the demonstration has been made, they have applied a deferential standard of review. *See, e.g.*, *MacClarence*, 596 F.3d at 1130–31.[5] Certain aspects of the petitioner's demonstration burden are discussed below. A more detailed discussion can be found in *In the Matter of Consolidated Environmental Management, Inc., Nucor Steel Louisiana*, Order on Petition Nos. VI-2011-06 and VI-2012-07 at 4–7 (June 19, 2013) (*Nucor II Order*).

The EPA considers a number of criteria in determining whether a petitioner has demonstrated noncompliance with the Act. *See generally Nucor II Order* at 7. For example, one such criterion is whether the petitioner has addressed the state or local permitting authority's decision and reasoning. The EPA expects the petitioner to address the permitting authority's final decision, and the permitting authority's final reasoning (including the state's response to comments), where these documents were available during the timeframe for filing the petition. *See MacClarence*, 596 F.3d at 1132–33.[6] Another factor the EPA examines is whether a petitioner

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[2] *See also New York Public Interest Research Group, Inc. v. Whitman*, 321 F.3d 316, 333 n.11 (2d Cir. 2003) *(NYPIRG)*.

[3] *WildEarth Guardians v. EPA*, 728 F.3d 1075, 1081–82 (10th Cir. 2013); *MacClarence v. EPA*, 596 F.3d 1123, 1130–33 (9th Cir. 2010); *Sierra Club v. EPA*, 557 F.3d 401, 405–07 (6th Cir. 2009); *Sierra Club v. Johnson*, 541 F.3d 1257, 1266–67 (11th Cir. 2008); *Citizens Against Ruining the Environment v. EPA*, 535 F.3d 670, 677–78 (7th Cir. 2008); *cf. NYPIRG*, 321 F.3d at 333 n.11.

[4] *See also Sierra Club v. Johnson*, 541 F.3d at 1265 ("Congress's use of the word 'shall' . . . plainly mandates an objection *whenever* a petitioner demonstrates noncompliance." (emphasis added)).

[5] *See also Sierra Club v. Johnson*, 541 F.3d at 1265–66; *Citizens Against Ruining the Environment*, 535 F.3d at 678.

[6] *See also, e.g.*, *Finger Lakes Zero Waste Coalition v. EPA*, 734 Fed. Appx. *11, *15 (2d Cir. 2018) (summary order); *In the Matter of Noranda Alumina, LLC*, Order on Petition No. VI-2011-04 at 20–21 (December 14, 2012) (denying a title V petition issue where petitioners did not respond to the state's explanation in response to comments or explain why the state erred or why the permit was deficient); *In the Matter of Kentucky Syngas, LLC*, Order on Petition No. IV-2010-9 at 41 (June 22, 2012) (denying a title V petition issue where petitioners did not acknowledge or reply to the state's response to comments or provide a particularized rationale for why the state erred or the permit was deficient); *In the Matter of Georgia Power Company*, Order on Petitions at 9–13 (January 8, 2007)

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has provided the relevant analyses and citations to support its claims. If a petitioner does not, the EPA is left to work out the basis for the petitioner's objection, contrary to Congress's express allocation of the burden of demonstration to the petitioner in CAA § 505(b)(2). *See MacClarence*, 596 F.3d at 1131 ("[T]he Administrator's requirement that [a title V petitioner] support his allegations with legal reasoning, evidence, and references is reasonable and persuasive.").[7] Relatedly, the EPA has pointed out in numerous previous orders that general assertions or allegations did not meet the demonstration standard. *See, e.g.*, *In the Matter of Luminant Generation Co., Sandow 5 Generating Plant*, Order on Petition Number VI-2011-05 at 9 (January 15, 2013).[8] Also, the failure to address a key element of a particular issue presents further grounds for the EPA to determine that a petitioner has not demonstrated a flaw in the permit. *See, e.g.*, *In the Matter of EME Homer City Generation LP and First Energy Generation Corp.*, Order on Petition Nos. III-2012-06, III-2012-07, and III-2013-02 at 48 (July 30, 2014).[9]

The information that the EPA considers in making a determination whether to grant or deny a petition submitted under 40 C.F.R. § 70.8(d) on a proposed permit generally includes, but is not limited to, the administrative record for the proposed permit and the petition, including attachments to the petition. The administrative record for a particular proposed permit includes the draft and proposed permits; any permit applications that relate to the draft or proposed permits; the statement of basis for the draft and proposed permits; the permitting authority's written responses to comments, including responses to all significant comments raised during the public participation process on the draft permit; relevant supporting materials made available to the public according to 40 C.F.R. § 70.7(h)(2); and all other materials available to the permitting authority that are relevant to the permitting decision and that the permitting authority made available to the public according to § 70.7(h)(2). If a final permit and a statement of basis for the final permit are available during the agency's review of a petition on a proposed permit, those documents may also be considered as part of making a determination whether to grant or deny the petition.

III. BACKGROUND

A. The PNG Wadesboro Facility

PNG owns and operates a natural gas compressor station in Wadesboro, Anson County, North Carolina. The PNG Wadesboro facility consists of eight natural gas-fired reciprocating internal combustion engines powering compressors, one natural gas-fired emergency generator, and other

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(*Georgia Power Plants Order*) (denying a title V petition issue where petitioners did not address a potential defense that the state had pointed out in the response to comments).

[7] *See also In the Matter of Murphy Oil USA, Inc.*, Order on Petition No. VI-2011-02 at 12 (September 21, 2011) (denying a title V petition claim where petitioners did not cite any specific applicable requirement that lacked required monitoring); *In the Matter of Portland Generating Station*, Order on Petition at 7 (June 20, 2007) (*Portland Generating Station Order*).

[8] *See also Portland Generating Station Order* at 7 ("[C]onclusory statements alone are insufficient to establish the applicability of [an applicable requirement]."); *In the Matter of BP Exploration (Alaska) Inc., Gathering Center #1*, Order on Petition Number VII-2004-02 at 8 (April 20, 2007); *Georgia Power Plants Order* at 9–13; *In the Matter of Chevron Products Co., Richmond, Calif. Facility*, Order on Petition No. IX-2004–10 at 12, 24 (March 15, 2005).

[9] *See also In the Matter of Hu Honua Bioenergy*, Order on Petition No. IX-2011-1 at 19–20 (February 7, 2014); *Georgia Power Plants Order* at 10.

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insignificant emission units. These units emit nitrogen oxides (NOx), carbon monoxide (CO), volatile organic compounds (VOC), sulfur dioxide, hazardous air pollutants, and other air pollutants. Among other requirements, units at the PNG Wadesboro facility are subject to the CAA subpart JJJJ New Source Performance Standards (NSPS) applicable to stationary spark ignition internal combustion engines.

B. Permitting History

On December 6, 2013, NCDENR received a permit application from PNG Wadesboro for the facility's initial title V permit. NCDENR provided public notice of the draft permit on June 18, 2014, subject to a public comment period that expired on July 18, 2014. NCDENR also submitted the proposed permit to the EPA on June 18, 2014, initiating the EPA's 45-day review period, which ended on August 4, 2014. The EPA did not object to the proposed permit during this time. On September 15, 2014, NCDENR issued the final permit No. 100097T01, along with a final Air Permit Review document containing its responses to public comments (RTC). The Petitioners timely submitted the Petition on October 3, 2014.

IV. DETERMINATIONS ON CLAIMS RAISED BY THE PETITIONERS

Although the Petition does not contain separately numbered claims, the EPA's responses below generally follow the organization of the claims in the Petition.

A. The Petitioners' Claim Involving a Public Hearing

Petitioners' Claim: The Petitioners assert that "failure of the permitting authority to meet procedural requirements for public participation under §70.7(h) constitute[s] sufficient grounds for EPA to object to a proposed permit." Petition at 1–2. Apparently related to this assertion, the Petitioners present a single-sentence statement that "Requests from the affected community for a public hearing were not granted by DAQ," *id.* at 2, later followed by a request that the EPA require NCDENR to "[h]old a public hearing in the affected community," *id.* at 6.

EPA's Response: For the following reasons, the EPA denies the Petitioners' request for an objection on this claim.

As an initial matter, it is not entirely clear that the Petitioners intended to claim that NCDENR's failure to hold a public hearing constitutes a basis for an EPA objection to the Permit. The lack of a public hearing was stated as a matter of fact, Petition at 2, and as a requested remedy, *id.* at 6, but was never explicitly claimed as a basis for an EPA objection. *But see id.* at 1–2 (claiming generally that "failure of the permitting authority to meet procedural requirements for public participation under §70.7(h) constitute[s] sufficient grounds for EPA to object to a proposed permit").

In any case, to the extent that such a claim has been made, the Petitioners have not demonstrated that the lack of a public hearing on the PNG Wadesboro Permit violated any procedural requirements of the CAA or part 70. In its RTC, NCDENR justified its decision not to hold a public hearing, stating: "As this was the only request for a public hearing, the Director did not

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believe that the threshold for significant public interest had been demonstrated. Therefore, a public hearing is not necessary." Final Air Permit Review at 8. Despite the fact that NCDENR's RTC was available during the public petition period, the Petitioners have not addressed the state's explanation[10] or demonstrated that NCDENR's decision not to hold a public hearing violated any requirements related to public hearings. The Petitioners cite to 40 C.F.R. § 70.7(h), but have not provided any analysis explaining how NCDENR's decision not to hold a public hearing might violate this provision. The EPA notes that 40 C.F.R. § 70.7(h) requires the permitting authority to provide an opportunity for a public hearing but does not include any requirement that NCDENR must hold a hearing in this instance.[11] Therefore, the Petitioners' unsupported statements do not demonstrate that the Permit or the procedures by which it was issued do not comply with the CAA or the requirements of part 70.[12]

For the foregoing reasons, the EPA denies the Petitioners' request for an objection on this claim.

B. The Petitioners' Claim Titled "Permitting Agency's Basis for Pollution Levels Underestimates Impacts"

Petitioners' Claim: The Petitioners assert that NCDENR's "air permit review grossly underestimates the potential [NOx], [CO], [VOC] and formaldehyde levels emitted by the facility." Petition at 2. The Petitioners reproduce a table from the permit review listing the tons/year emission rates of various pollutants, including those mentioned above. *Id.* According to the Petitioners, emission rates for these pollutants were provided by the supplier of PNG's engines, whereas the rates for other pollutants were based on AP-42 emission factors. *Id.*

The Petitioners then specifically discuss NOx and CO emission estimates. Regarding NOx, the Petitioners note that an emission factor of 0.5 g/hg-hr was used for engines, but claim that the technical data sheet for the Caterpillar F3616 gas engine indicates a higher rate of 0.7 g/hp-hr, which would correspond to 40 percent higher annual emissions. *Id.* Regarding both NOx and CO, the Petitioners assert that the facility's NOx and CO emissions are likely to have wide variations depending on the load placed on the engines. *Id.* The Petitioners then discuss various reasons for this variability. *See id.* at 2–3.

The Petitioners also assert that "[e]ven the engine manufacturer warns against the reliance on its technical data for regulatory compliance," given that this emission data is based on 100% load. *Id.* at 3 (quoting a statement for a Caterpillar technical data sheet for emergency diesel generators).

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[10] *See supra* note 6 and accompanying text.

[11] In fact, permitting authorities are not obligated to hold a hearing in all instances, but rather are required to "offer [] an *opportunity* for . . . a hearing." 42 U.S.C. § 7661a(b)(6); 40 C.F.R. § 70.7(h) (emphasis added). The EPA has previously interpreted federal requirements to require "a hearing *where appropriate*," 57 Fed. Reg. 32290 (July 21, 1992) (emphasis added). Moreover, the EPA has explained that "[n]either the Act nor EPA's implementing regulations require a permitting authority to hold a hearing when one is requested." *See, e.g., In the Matter of Hu Honua Bioenergy*, Order on Petition No. VI-2014-10 at 13–15 (Sept. 14, 2016) (quoting *In the Matter of ExxonMobil Operating Permits*, Order on Petition No. VI-2004-01 at 12 (June 29, 2005)).

[12] *See supra* notes 7, 8, and accompanying text.

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The Petitioners additionally allege that the Permit "does not include adequate monitoring, recordkeeping and reporting requirements to ensure that the Piedmont Natural Gas Wadesboro Compressor Station will comply with NAAQS and the state implementation plan [SIP] for NOx, CO formaldehyde and other pollutants." *Id.*

EPA's Response: For the following reasons, the EPA denies the Petitioners' request for an objection on this claim.

Although the Petitioners question the accuracy of various emissions estimates and emission factors associated with the PNG Wadesboro facility, they have not demonstrated how any of these assertions may be relevant to whether the Permit complies with requirements of the Act. The Petitioners neither provide a citation to any specific CAA requirement related to these emission estimates or emission factors, nor identify any permit terms associated with or impacted by these emission estimates, nor attempt to explain why any inaccuracies in these emission estimates or emission factors would result in the Permit not complying with any requirements of the Act. Overall, the Petitioners' claims challenging the accuracy of certain emission estimates and emission factors, without any citation or analysis explaining the relevance of these claims, do not demonstrate a flaw in the Permit.[13]

Additionally, the Petitioners' brief, one-sentence claim that the Permit does not include adequate monitoring, recordkeeping, and reporting requirements to assure compliance "with NAAQS and the [SIP] for NOx, CO formaldehyde and other pollutants," Petition at 3, is vague and unclear, and provides no grounds for an EPA objection. In order to provide a basis for an EPA objection on this type of claim, petitioners must demonstrate that a permit does not contain monitoring, recordkeeping, and reporting requirements sufficient to assure compliance with a specific applicable requirement or permit term. *See* 42 U.S.C. § 7661c(a), (c); 40 C.F.R. 70.6(c)(1). Here, the Petitioners have not identified any applicable requirement or permit term with which the Permit's current conditions do not assure compliance.[14] Nor do the Petitioners identify or discuss the Permit's monitoring, recordkeeping, and reporting provisions or provide any explanation why these provisions do not assure compliance with any such (unidentified) permit terms. In responding to public comments raising the same vague claim, NCDENR explained: "The engines operating at the Wadesboro facility are subject to 40 CFR Part 60 (NSPS) Subpart JJJJ for stationary spark ignition internal combustion engines. The subpart requires testing, monitoring, recordkeeping, and reporting. These requirements were recently established by EPA and are adequate to demonstrate compliance with emissions standards for regulated pollutants." Final Air Permit Review at 8. The Petitioners failed to acknowledge or rebut the state's reasoning. Overall, the Petitioners' vague, general claim—unsupported by any citation or analysis and not addressing the state's reasoning—fails to demonstrate that the Permit does not comply with requirements of the Act.[15] For the foregoing reasons, the EPA denies the Petitioners' request for an objection on this claim.

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[13] *See supra* note 7 and accompanying text. Additionally, as discussed above, the Petitioners failed to address the reasoning provided by NCDENR in its RTC. *See* Final Air Permit Review at 7–8; *supra* note 6 and accompanying text.

[14] Instead, the Petitioners provide only a cursory reference to unidentified NAAQS and SIP requirements related to an open-ended list of pollutants.

[15] *See supra* notes 6, 7, 8, and accompanying text.

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C. The Petitioners' Claim Titled "Opacity Compliance Lacks Sufficient Basis"

Petitioners' Claim: The Petitioners claim that the Permit "has insufficient basis for determining compliance with NAAQS opacity standards." Petition at 3. Put another way, the Petitioners request an EPA objection because "the premise of the draft permit for compliance with the 20% opacity standard has no basis." *Id.* at 4. The Petitioners reproduce a statement from the draft permit review, which indicated, "As stated in the inspection report, typical opacities for these engine exhausts is zero." *Id.* at 3. The Petitioners criticize this statement and the inspection report it references, claiming that the facility was not in operation at the time of the inspection, and that "a non-specific review of a typical facility is insufficient when the matter at hand is a specific facility at a specific location." *Id.* at 4.

EPA's Response: For the following reasons, the EPA denies the Petitioners' request for an objection on this claim.

As discussed above, in order to present grounds for an EPA objection on a claim alleging inadequate monitoring, a petitioner must demonstrate that the current monitoring, recordkeeping, and reporting requirements are not sufficient to assure compliance with a particular applicable requirement or permit term. 42 U.S.C. §§ 7661c(a), (c).

As an initial matter, the Petitioners have not identified any specific applicable requirement or permit term with which the Permit does not assure compliance. Instead, the Petitioners refer generically to a 20% opacity standard.[16] However, more importantly, the Petitioners have failed to demonstrate that the Permit does not assure compliance with all applicable requirements and permit terms related to opacity, such that additional provisions are necessary.

In the Air Permit Review released with the Draft Permit, NCDENR explained that opacity from the natural gas-fired engines like those at PND Wadesboro is typically zero and explained that "Due to the large margin of compliance, no monitoring or recordkeeping is required." Draft Air Permit Review at 2.[17] Additionally, in responding to public comments, NCDENR explained that

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[16] The EPA observes that Sections 2.1.A.2 and 2.1.B.2 of the Final Permit contains this 20% opacity limit. This permit term is not, as the Petitioners suggest, a "NAAQS opacity standard[]." Petition at 3. Rather, it is a generic requirement based on the North Carolina SIP that applies broadly to many different potential emission units. *See* 15A N.C.A.C. 2D.0521(d).

[17] As the EPA has previously explained, permitting authorities have broad discretion in determining the extent of monitoring necessary to assure compliance with generic requirements (such as the SIP opacity limits at issue here) that apply to units that do not have a significant potential to violate such requirements (such as the natural gas-fired engines at issue here). *See* White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program at 32 (March 6, 1996). As NCDENR suggests, properly operated and maintained natural gas-fired combustion units do not generally have significant opacity or PM emissions. The EPA has affirmed this general principle in the context of natural gas-fired internal combustion engines (like those at PNG Wadesboro) as well as other natural gas-fired combustion sources. *See, e.g.*, 71 Fed. Reg. 33803, 33814 (June 12, 2006) (explaining that the EPA would not regulate particulate emissions from natural gas-fired spark-ignition internal combustion engines in the subpart JJJJ NSPS due to low PM emission levels); AP-42, Fifth Edition, Volume 1, Chapter 3.2 at 3.2-4 (August 2000) ("Emission of PM from natural gas-fired reciprocating engines are generally minimal and comprise fine filterable and condensible PM."); 76 Fed. Reg. 3517, 3520 (March 21, 2011) (explaining EPA's decision to

"[t]he facility only burns natural gas, the firing of which inherently complies with the opacity limit," and indicated that no visible emissions were observed during a 2014 performance testing of the PNG Wadesboro emission units. Final Air Permit Review at 8. The Petitioners fail to acknowledge or address this RTC and do not even attempt to rebut the technical basis of NCDENR's decision.[18] Instead, the Petitioners' sole argument appears to be an insistence that NCDENR cannot rely on basic principles governing opacity from natural gas-fired engines, but instead must undertake a more thorough site-specific evaluation of opacity at the PNG Wadesboro facility. However, the Petitioners have not demonstrated why this is necessary in this instance. For example, the Petitioners have provided no explanation for why the basic principle that NCDENR relied upon should not apply to the specific natural gas-fired engines or the natural gas-fired emergency generator at the PNG Wadesboro facility, such that additional site-specific monitoring would be necessary. Based on NCDENR's RTC, it also appears that the state *did* undertake a site-specific analysis regarding opacity emissions, confirming the lack of opacity during a prior performance test. *See* Final Air Permit Review at 8. It is unclear what more the Petitioners believe is necessary, or why. In any case, the Petitioners' contention that "the premise of the draft permit for compliance with the 20% opacity standard has no basis," Petition at 4, is clearly incorrect. NCDENR provided a basis for its decision, and the Petitioners have failed to rebut it. The Petitioners' cursory, unsupported claims do not demonstrate that the Permit does not assure compliance with Permit's opacity conditions.[19]

For the foregoing reasons, the EPA denies the Petitioners' request for an objection on this claim.

D. The Petitioners' Claim Titled "Environmental Justice Analysis Lacking"

Petitioners' Claim: The Petitioners' final claim involves health impacts and environmental justice (EJ) considerations associated with the PNG Wadesboro facility. The Petitioners first summarize demographic information for Anson County, the location of the PNG Wadesboro facility. *See* Petition at 4. The Petitioners assert that Wadesboro also contains several other sources of air pollution permitted by NCDENR. *Id.* The Petitioners suggest that the cumulative impact of the PNG Wadesboro facility and other facilities will create an elevated risk to public health in Anson County. *Id.* For support, the Petitioners quote multiple studies and surveys related to air quality impacts and EJ considerations. *See id.* at 4–5.

The Petitioners claim that NCDENR "has not complied with its [EJ] obligations under the state's Administrative Procedure Act" and permit review procedures, which the Petitioners claim require the evaluation of cumulative or secondary impacts of the PNG Wadesboro facility. *Id.* at 4 (citing *Washington County v. U.S. Dep't of the Navy*, 317 F. Supp. 2d 626 (E.D.N.C. 2004); N.C. Gen. Stat. §§ 133A-1, *et seq.*). The Petitioners request that the EPA compel NCDENR to review these impacts, with an emphasis on EJ (that is, on disproportionately affected communities in Anson County). *Id.* at 5.

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allow permitting authorities to exempt natural gas-fired turbines in industrial-commercial-institutional steam generating units from periodic opacity monitoring requirements in the subpart D and subpart Da NSPS).

[18] *See supra* note 6 and accompanying text.

[19] *See supra* notes 7, 8, and accompanying text.

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The Petitioners also reference "[t]he EPA's responsibility to review state permits for EJ compliance" *Id.* (citing 42 U.S.C. § 7609; Memorandum, Addressing Environmental Justice through Reviews Conducted Pursuant to the National Environmental Policy Act (NEPA) and Section 309 of the [CAA] (April 19, 2011) (Giles Memorandum)).

EPA's Response: For the following reasons, the EPA denies the Petitioners' request for an objection on this claim.

The Petitioners have not demonstrated that NCDENR was required, in the PNG Wadesboro permit action, to conduct a secondary impacts analysis and/or an EJ analysis. Although the Petitioners reference various state and federal statutes, the Petitioners have not demonstrated that any of the cited provisions (or any other provisions) establish federally enforceable "applicable requirements" that would apply to this permit action and which would be subject to EPA review.

The Petitioners generally cite N.C. Gen. Stat. §§ 133A-1 *et seq.*, the state's Administrative Procedure Act, in support of their assertion that NCDENR should have conducted the requested impacts analyses. As an initial matter, it is unclear which specific portion of this statute creates this obligation, as the Petitioners have not provided any specific citation or analysis of the relevant statutory provisions. However, even more importantly, this statute is not part of North Carolina's EPA-approved SIP. *See* 40 C.F.R. § 52.1770 (identification of North Carolina SIP). As such, this statute is not federally enforceable and does not establish "applicable requirements" subject to the EPA's review or a petition opportunity through the title V permitting process. *See* 40 C.F.R. §§ 70.2 (definition of "applicable requirement"), 70.6(b)(2) (providing that state-only permit terms are not subject to, among other things, the EPA's review or a petition opportunity under § 70.8); *see also, e.g., In the Matter of Waupaca Foundry, Inc. Plants 2/3*, Order on Petition No. V-2016-21 at 9–10 (June 7, 2017). Therefore, issues regarding compliance with this state statute (*i.e.*, whether WDNR was required to conduct a cumulative or secondary impacts analysis under state law) do not present grounds for an EPA objection to the Permit.

In discussing "[t]he EPA's responsibility to review state permits for EJ compliance," Petition at 5, the Petitioners mischaracterize CAA § 309 and an EPA guidance document associated with this statutory provision. Both the text of the statute and the guidance document cited by the Petitioners clearly state that Section 309 relates to the EPA's review of certain actions by the federal (not state) government, such as in the NEPA context. 42 U.S.C. § 7609(a) (providing EPA review of: "(1) legislation proposed by any *Federal* department or agency, (2) newly authorized *Federal* projects for construction and any major *Federal* agency action (other than a project for construction) to which section 4332(2)(C) of this title applies, and (3) proposed regulations published by any department or agency of the *Federal* Government" (emphases added)); Giles Memorandum at 1 (discussing an obligation to review "*federal* environmental impacts statements" by "other *Federal* agencies" in the NEPA context (emphasis added)). The Petitioners have not addressed the relevant provisions of Section 309 or demonstrated that these provisions create any obligation on the EPA in the context of reviewing a *state-issued* operating permit like the PNG Wadesboro Permit. Additionally, in light of the limited scope of actions to which CAA § 309 applies—and the fact that where it does apply, it places an obligation on the EPA—this provision lends no support to the Petitioners' overarching claims that NCDENR must perform an EJ analysis as part of the current title V permit action.

Overall, given the Petitioners' failure to demonstrate that NCDENR was required by applicable federal law to conduct a cumulative impact or EJ analyses, the Petitioners have failed to demonstrate that the Permit as issued does not comply with applicable requirements of the CAA or the North Carolina SIP.

For the foregoing reasons, the EPA denies the Petitioners' request for an objection on this claim.

V. CONCLUSION

For the reasons set forth above and pursuant to CAA § 505(b)(2) and 40 C.F.R. § 70.8(d), I hereby deny the Petition as described above.

Dated: MAR 20 2019

Andrew R. Wheeler
Administrator

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Message

From: Harlow, David [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B5A9A34E31FC4FE6B2BEADDDA2AFFA44-HARLOW, DAV]
Sent: 5/31/2019 9:22:34 PM
To: Bodine, Susan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8c2cc6086fcc44c3be6b5d32b262d983-Bodine, Sus]; Lopez, Peter [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b7b64b3b2f984708840a5f342309d460-Lopez, Pete]
CC: Wehrum, Bill [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33d96ae800cf43a3911d94a7130b6c41-Wehrum, Wil]; Idsal, Anne [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b1beca8121fb47a08e82b6bf2247a79b-Idsal, Anne]; Woods, Clint [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=bc65010f5c2e48f4bc2aa050db50d198-Woods, Clin]; Dominguez, Alexander [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5ced433b4ef54171864ed98a36cb7a5f-Dominguez,]
Subject: Memorandum on the Status of the Existing Docks at Limetree Bay as an "Offshore Loading Terminal"
Attachments: Wehrum Idsal to Bodine Memorandum 5312019.pdf

Susan and Peter,

Attached is the memorandum we had promised you regarding the matter of the status of the existing docks at Limetree Bay as an “offshore loading terminal” within the meaning of the regulatory definition in the Subpart Y NESHAP. My apologies for sending it along so late in the day, but in that we finally got it finished earlier today, and as I know you had been waiting for it for a while now, I did want to get it out the door before the end of the week.

We would, of course, be happy to discuss this matter further if/as necessary. Thank you.

David S. Harlow
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