



**6560-50-P**

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

**[EPA-R08-OAR-2017-0062; FRL--9960-20-Region 8]**

**Approval and Promulgation of Air Quality Implementation Plans; Montana; Regional Haze Federal Implementation Plan**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing revisions pursuant to section 110 of the Clean Air Act (CAA) to the Federal Implementation Plan (FIP) addressing regional haze in the State of Montana. The EPA promulgated a FIP on September 18, 2012, in response to the State's decision in 2006 to not submit a regional haze State Implementation Plan (SIP); we are proposing revisions to that FIP. The EPA is proposing revisions to the FIP's requirement for best available retrofit technology (BART) for the Trident cement kiln owned and operated by Oldcastle Materials Cement Holdings, Inc., (Oldcastle), located in Three Forks, Montana. In response to a request from Oldcastle, and in light of new information that was not available at the time we originally promulgated the FIP, we are proposing to revise the nitrogen oxides (NO<sub>x</sub>) emission limit for the Trident cement kiln. We are also proposing to correct errors we made in our FIP regarding the reasonable progress determination for the Blaine County #1 Compressor Station and the instructions for compliance determinations for particulate matter (PM) BART emission limits at electrical generating units (EGUs) and cement kilns. This action does not address the U.S. Court of Appeals for the Ninth Circuit's June 9, 2015 vacatur and remand of portions of the FIP regarding the Colstrip and Corette power plants; we will address the court's remand in a separate action.

**DATES:** Comments: Written comments must be received on or before [**INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER**].

Public Hearing: If anyone contacts us requesting a public hearing on or before [**INSERT DATE 15 DAYS FROM DATE OF PUBLICATION IN THE FEDERAL REGISTER**], we will hold a hearing. Additional information about the hearing, if requested, will be published in a subsequent Federal Register document. Contact Jaslyn Dobrahner at (303) 312-6252 or at [dobrahner.jaslyn@epa.gov](mailto:dobrahner.jaslyn@epa.gov) to request a hearing or to determine if a hearing will be held.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R08-OAR-2017-0062, to the Federal Rulemaking Portal: <https://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 (i.e., on the web, cloud, or other 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>.

Docket: All documents in the docket are listed in the [www.regulations.gov](http://www.regulations.gov) index. 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, such as copyrighted material,

will be publicly available only in hard copy. Publicly available docket materials are available either electronically in [www.regulations.gov](http://www.regulations.gov) or in hard copy at the Air Program, Environmental Protection Agency (EPA), Region 8, 1595 Wynkoop Street, Denver, Colorado 80202-1129. The EPA requests that if at all possible, you contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section to view the hard copy of the docket. You may view the hard copy of the docket Monday through Friday, 8:00 a.m. to 4:00 p.m., excluding federal holidays.

**FOR FURTHER INFORMATION CONTACT:** Jaslyn Dobrahner, Air Program, EPA, Region 8, Mailcode 8P-AR, 1595 Wynkoop Street, Denver, Colorado, 80202-1129, (303) 312-6252, [dobrahner.jaslyn@epa.gov](mailto:dobrahner.jaslyn@epa.gov).

**SUPPLEMENTARY INFORMATION:**

Throughout this document whenever “we,” “us,” or “our” is used, we mean the EPA.

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## **I. General Information**

What should I consider as I prepare my comments for EPA?

1. Submitting CBI. Do not submit CBI to the EPA through <https://www.regulations.gov> or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information on a disk or CD ROM that you mail to the EPA, mark the outside of the disk or CD ROM as CBI and then identify electronically within the disk or CD ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.
2. Tips for preparing your comments. When submitting comments, remember to:
  - Identify the rulemaking by docket number and other identifying information (subject heading, Federal Register, date, and page number);
  - Follow directions and organize your comments;
  - Explain why you agree or disagree;
  - Suggest alternatives and substitute language for your requested changes;

- Describe any assumptions and provide any technical information and/or data that you used;
- If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced;
- Provide specific examples to illustrate your concerns, and suggest alternatives;
- Explain your views as clearly as possible, avoiding the use of profanity or personal threats; and
- Make sure to submit your comments by the comment period deadline identified.

## **II. What Action is the EPA Taking?**

On September 18, 2012, the EPA promulgated a FIP that included a NO<sub>x</sub> BART emission limit for the Holcim (US), Inc., Trident cement kiln located in Three Forks, Montana.<sup>1,2</sup> The EPA is proposing to revise the 2012 FIP with respect to the BART emission limit for the Trident cement kiln. Specifically, the EPA is proposing to revise the NO<sub>x</sub> emission limit from 6.5 lb/ton clinker to 7.6 lb/ton clinker (both as 30-day rolling averages). The EPA is also proposing to correct errors we made in our FIP regarding the reasonable progress determination for the Blaine County #1 Compressor Station and in the instructions for compliance determinations for particulate matter (PM) BART emission limits at EGUs and cement kilns. Our proposed correction to our erroneous reasonable progress determination for the Blaine County #1 Compressor Station will result in the source no longer being subject to a NO<sub>x</sub> emission limit of 21.8 lbs NO<sub>x</sub>/hr (average of three stack test runs). The EPA is proposing to revise the specific

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<sup>1</sup> Oldcastle Materials Cement Holdings, Inc., (Oldcastle) is the current owner and operator of the Trident cement kiln.

<sup>2</sup> 77 FR 57864.

portions of Montana’s regional haze FIP described in this Notice of Proposed Rulemaking under our general rulemaking and CAA-specific authority. See 5 U.S.C. 551(5); 42 U.S.C. 7601(a)(1), 7410(c)(1), 7410(k)(6). We are not addressing the Ninth Circuit’s June 9, 2015 vacatur and remand of unrelated portions of the FIP in this action and will address the court’s remand in a separate action.

### **III. Background**

#### A. Requirements of the Clean Air Act and the EPA’s Regional Haze Rule

In section 169A of the 1977 Amendments to the CAA, Congress created a program for protecting visibility in the nation’s national parks and wilderness areas. This section of the CAA establishes “as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from manmade air pollution.”<sup>3</sup> On December 2, 1980, the EPA promulgated regulations to address visibility impairment in Class I areas that is “reasonably attributable” to a single source or small group of sources, i.e., reasonably attributable visibility impairment.<sup>4</sup> These regulations represented the first phase in addressing visibility impairment. The EPA deferred action on regional haze that emanates from a variety of sources until monitoring, modeling and scientific knowledge about the relationships between pollutants and visibility impairment were improved.

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<sup>3</sup> 42 U.S.C. 7491(a). Areas designated as mandatory Class I Federal areas consist of national parks exceeding 6000 acres, wilderness areas and national memorial parks exceeding 5000 acres, and all international parks that were in existence on August 7, 1977. 42 U.S.C. 7472(a). In accordance with section 169A of the CAA, EPA, in consultation with the Department of Interior, promulgated a list of 156 areas where visibility is identified as an important value. 44 FR 69122 (November 30, 1979). The extent of a mandatory Class I area includes subsequent changes in boundaries, such as park expansions. 42 U.S.C. 7472(a). Although states and tribes may designate as Class I additional areas which they consider to have visibility as an important value, the requirements of the visibility program set forth in section 169A of the CAA apply only to “mandatory Class I Federal areas.” Each mandatory Class I Federal area is the responsibility of a “Federal Land Manager.” 42 U.S.C. 7602(i). When we use the term “Class I area” in this section, we mean a “mandatory Class I Federal area.”

<sup>4</sup> 45 FR 80084, 80084 (December 2, 1980).

Congress added section 169B to the CAA in 1990 to address regional haze issues. The EPA promulgated a rule to address regional haze on July 1, 1999.<sup>5</sup> The Regional Haze Rule (RHR) revised the existing visibility regulations to integrate provisions addressing regional haze and established a comprehensive visibility protection program for Class I areas. The requirements for regional haze, found at 40 CFR 51.308 and 51.309, are included in the EPA's visibility protection regulations at 40 CFR 51.300-309. The EPA revised the RHR on January 10, 2017.<sup>6</sup>

The CAA requires each state to develop a SIP to meet various air quality requirements, including protection of visibility.<sup>7</sup> Regional haze SIPs must assure reasonable progress toward the national goal of achieving natural visibility conditions in Class I areas. A state must submit its SIP and SIP revisions to the EPA for approval. Once approved, a SIP is enforceable by the EPA and citizens under the CAA; that is, the SIP is federally enforceable. If a state elects not to make a required SIP submittal, fails to make a required SIP submittal or if we find that a state's required submittal is incomplete or not approvable, then we must promulgate a FIP to fill this regulatory gap.<sup>8</sup> Montana is on the path towards a SIP and working closely with the Region to make that happen as soon as practicable.

#### B. Best Available Retrofit Technology (BART)

Section 169A of the CAA directs states, or the EPA if developing a FIP, to evaluate the use of retrofit controls at certain larger, often uncontrolled, older stationary sources in order to address visibility impacts from these sources. Specifically, section 169A(b)(2)(A) of the CAA requires states' implementation plans to contain such measures as may be necessary to make

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<sup>5</sup> 64 FR 35714, 35714 (July 1, 1999) (codified at 40 CFR part 51, subpart P).

<sup>6</sup> 82 FR 3078 (January 10, 2017).

<sup>7</sup> 42 U.S.C. 7410(a), 7491, and 7492 (a), CAA sections 110(a), 169A, and 169B.

<sup>8</sup> 42 U.S.C. 7410(c)(1).

reasonable progress toward the natural visibility goal, including a requirement that certain categories of existing major stationary sources built between 1962 and 1977 procure, install, and operate the “Best Available Retrofit Technology” as determined by the states, or in the case of a FIP, the EPA. Under the RHR, states or the EPA are directed to conduct BART determinations for such “BART-eligible” sources that may reasonably be anticipated to cause or contribute to any visibility impairment in a Class I area.

On July 6, 2005, the EPA published the Guidelines for BART Determinations under the RHR at appendix Y to 40 CFR part 51 (hereinafter referred to as the “BART Guidelines”) to assist states and the EPA in determining which sources should be subject to the BART requirements and the appropriate emission limits for each applicable source.<sup>9</sup> The process of establishing BART emission limitations follows three steps: first, identify the sources that meet the definition of “BART-eligible source” set forth in 40 CFR 51.301;<sup>10</sup> second, determine which of these sources “emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area” (a source which fits this description is “subject to BART”); and third, for each source subject to BART, identify the best available type and level of control for reducing emissions. Section 169A(g)(7) of the CAA requires that states, or the EPA if developing a FIP, must consider the following 5 factors in making BART determinations: (1) the costs of compliance; (2) the energy and non-air quality environmental impacts of compliance; (3) any existing pollution control technology in use at the source; (4) the remaining useful life of the source; and (5) the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology. States or the EPA must

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<sup>9</sup> 70 FR 39104.

<sup>10</sup> BART-eligible sources are those sources that have the potential to emit 250 tons or more of a visibility-impairing air pollutant, were not in operation prior to August 7, 1962, but were in existence on August 7, 1977, and whose operations fall within one or more of 26 specifically listed source categories. 40 CFR 51.301.

address all visibility-impairing pollutants emitted by a source in the BART determination process. The most significant visibility impairing pollutants are sulfur dioxide (SO<sub>2</sub>), NO<sub>x</sub>, and PM.

A SIP or FIP addressing regional haze must include source-specific BART emission limits and compliance schedules for each source subject to BART. Once a state or the EPA has made a BART determination, the BART controls must be installed and operated as expeditiously as practicable, but no later than 5 years after the date of the EPA's approval of the final SIP or the date of the EPA's promulgation of the FIP.<sup>11</sup> In addition to what is required by the RHR, general SIP requirements mandate that the SIP or FIP include all regulatory requirements related to monitoring, recordkeeping, and reporting for the BART emission limitations. See CAA section 110(a); 40 CFR part 51, subpart K.

### C. Reasonable Progress Requirements

In addition to BART requirements, as mentioned previously each regional haze SIP or FIP must contain measures as necessary to make reasonable progress towards the national visibility goals. As part of determining what measures are necessary to make reasonable progress, the SIP or FIP must first identify anthropogenic sources of visibility impairment that are to be considered in developing the long-term strategy for addressing visibility impairment.<sup>12</sup> States or the EPA must then consider the four statutory reasonable progress factors in selecting control measures for inclusion in the long-term strategy—the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of potentially affected sources. See CAA section 169A(g)(1) (defining the reasonable progress factors); 40 CFR 51.308(d)(1)(i)(A). Finally, the SIP or FIP

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<sup>11</sup> CAA section 169A(g)(4); 40 CFR 51.308(e)(1)(iv).

<sup>12</sup> 40 CFR 51.308(d)(3)(iv).

must establish reasonable progress goals (RPGs) for each Class I area within the State for the plan implementation period (or “planning period”), based on the measures included in the long-term strategy.<sup>13</sup> If an RPG provides for a slower rate of improvement in visibility than the rate needed to attain the national goal by 2064, the SIP or FIP must demonstrate, based on the four reasonable progress factors, why the rate to attain the national goal by 2064 is not reasonable and the RPG is reasonable.<sup>14</sup>

D. Consultation with Federal Land Managers (FLMs)

The RHR requires that a state, or the EPA if promulgating a FIP that fills a gap in the SIP with respect to this requirement, consult with FLMs before adopting and submitting a required SIP or SIP revision, or a required FIP or FIP revision.<sup>15</sup> Further, the EPA must include in its proposed FIP a description of how it addressed any comments provided by the FLMs. Finally, a FIP must provide procedures for continuing consultation between the EPA and FLMs regarding the EPA’s FIP, visibility protection program, including development and review of FIP revisions, 5-year progress reports, and the implementation of other programs having the potential to contribute to impairment of visibility in Class I areas.

E. Regulatory and Legal History of the 2012 Montana FIP

On September 18, 2012, the EPA promulgated a FIP that included BART emission limits for two power plants and two cement kilns, and an emission limit for a natural gas compressor station based on reasonable progress requirements.<sup>16</sup> The EPA took this action because Montana decided not to submit a regional haze SIP, knowing that as a result the EPA would be required to

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<sup>13</sup> 40 CFR 51.308(d), (f).

<sup>14</sup> 40 CFR 51.308(d)(1)(ii).

<sup>15</sup> 40 CFR 51.308(i).

<sup>16</sup> 77 FR 57864.

promulgate a FIP.<sup>17</sup> The BART emission limits for the two cement kilns and the reasonable progress requirements for the compressor station were not at issue in the petitions filed with the Ninth Circuit Court of Appeals.<sup>18</sup> The EPA plans to address the court's remand in a separate action.

#### **IV. Trident Cement Kiln**

Among other things, the 2012 FIP for Montana established a BART NO<sub>x</sub> emission limit for the kiln at the Trident cement plant (owned by Holcim, Inc., at the time of our 2012 final action). The Trident kiln is a "long kiln," meaning that all of the pyroprocessing is accomplished in the rotary kiln. By contrast, with more recent designs, such as preheater and precalciner (PH/PC) kilns, much of the pyroprocessing occurs in stationary vessels placed upstream of the rotary kiln. The PH/PC kilns are also generally shorter in length, more thermally efficient, and generate less NO<sub>x</sub>. The EPA promulgated a BART emission limit for the Trident kiln of 6.5 lb NO<sub>x</sub>/ton clinker (as a 30-day rolling average), which reflected installation of selective non-catalytic reduction (SNCR). Based on information available at the time, the emission limit was derived using a 50% reduction in the baseline NO<sub>x</sub> emissions.<sup>19</sup>

In May 2016, Oldcastle representatives contacted the EPA and updated us of the change in ownership of the Trident facility, and requested a meeting with the EPA to discuss challenges with meeting the BART emission limit, which Oldcastle became aware of from its contractors assisting

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<sup>17</sup> Letter from Richard H. Opper, Director Montana Department of Environmental Quality to Laurel Dygowski, EPA Region 8 Air Program, June 19, 2006.

<sup>18</sup> Several parties petitioned the Ninth Circuit Court of Appeals to review EPA's NO<sub>x</sub> and SO<sub>2</sub> BART determinations at the power plants, Colstrip and Corette (PPL Montana, LLC, the National Parks Conservation Association, Montana Environmental Information Center, and the Sierra Club). The court vacated the NO<sub>x</sub> and SO<sub>2</sub> BART emission limits at Colstrip Units 1 and 2 and Corette and remanded those portions of the FIP back to EPA for further proceedings. National Parks Conservation Association v. EPA, 788 F.3d 1134 (9th Cir. 2015).

<sup>19</sup> 77 FR 24003-24004, 24014.

with the design and installation of the SNCR control system to meet the BART requirement.<sup>20</sup> The EPA and Oldcastle met on July 25, 2016, to discuss these issues.<sup>21</sup> In September 2016, Oldcastle requested that the EPA revise the emission limit due to its concerns that it cannot achieve the 50% emission reduction the EPA assumed was possible with SNCR on a continuous basis without unacceptable levels of ammonia slip, which may in turn negatively impact operations, unduly increase reagent costs, and create a localized visible detached plume.<sup>22</sup> Accordingly, we have reevaluated the NO<sub>x</sub> control effectiveness (percent reduction), and thereby the emission limit, that can be achieved with SNCR when applied to long kilns. In particular, we have considered new information concerning SNCR performance that was not available at the time the 2012 FIP was promulgated.

As an initial matter, the EPA recognizes that it is challenging to predict the control effectiveness of SNCR for long cement kilns for a few reasons. First, whereas SNCR has been applied to many industrial sources, and in particular to coal-fired utility and industrial boilers, the number of long cement kilns that have been retrofitted with SNCR is relatively small. In fact, until recently SNCR was not considered technically feasible for long kilns because the appropriate temperature window is in the middle of the kiln, requiring that the reagent be injected into the rotating kiln.<sup>23</sup> Second, there is inherent variability in the operation of long kilns, particularly in comparison to PH/PC kilns, that makes injection of reagent at the optimal temperature window difficult. Third, the available SNCR performance data for long kilns does not reflect a contemporaneous measurement of uncontrolled and controlled NO<sub>x</sub> emission rates because it is not possible to measure the uncontrolled NO<sub>x</sub> emission rate inside the kiln. Instead, the uncontrolled NO<sub>x</sub> emission rate (measured at the kiln

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<sup>20</sup> Oldcastle acquired the facility on August 1, 2015. Oldcastle July 25, 2016, PowerPoint Presentation at 3.

<sup>21</sup> Oldcastle presentation to EPA, July 25, 2016.

<sup>22</sup> See submittals from Bison Engineering, Inc., to EPA on behalf of Oldcastle dated September 30, 2016, January 27, 2017, and February 13, 2017.

<sup>23</sup> NO<sub>x</sub> Control Technologies for the Cement Industry: Final Report, p. 70, EPA-457/R-00-002, September 2000.

exhaust), is taken from a baseline period prior to the installation of SNCR. Thus, it is difficult to prospectively estimate the control effectiveness of one long kiln from the operation of another long kiln already equipped with SNCR. Collectively, these factors introduce uncertainty when predicting the control effectiveness of SNCR when applied to long kilns, which is a necessary step in setting the NO<sub>x</sub> emission limit. This uncertainty has been the impetus for the use of post-installation control technology demonstrations to set NO<sub>x</sub> emission limits in association with consent decree enforcement actions for long kilns (as discussed later in this preamble).

As stated in its submittals to the EPA, Oldcastle is committed to installing and operating the SNCR system on its Trident kiln.<sup>24</sup> The construction of the SNCR system is underway and will likely be integrated into plant operations beginning during a shutdown scheduled for April 2017.<sup>25</sup> As such, the EPA's consideration of Oldcastle's concerns and the resulting proposed FIP revision for the Trident kiln address only the appropriate emission limit associated with the operation of SNCR. Because the EPA is not revisiting the question of what control technology represents BART, this proposed rule does not include an updated 5-factor BART analysis.

To assess whether the new information supports revising the emission limits for the Trident kiln, we first reviewed the EPA's evaluation of SNCR control effectiveness for long kilns in the 2012 FIP. There, the EPA determined that a 50% control effectiveness was an appropriate estimate for SNCR at long kilns, such as the Trident kiln. This was largely based on the SNCR performance observed on the three Ash Grove Cement long wet kilns located in Midlothian, Texas. Emissions data submitted by Ash Grove to the Texas Commission on Environmental Quality (TCEQ) showed that the Midlothian kilns achieved emission rates in the range of 1.6 to

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<sup>24</sup> Oldcastle submittal to the EPA, p. 23, January 27, 2017.

<sup>25</sup> See photographs of SNCR construction attached to email from Bison Engineering, Inc., dated November 11, 2016.

2.9 lb NO<sub>x</sub>/ton of clinker from June through August 2008 when using SNCR. The EPA compared this to baseline emissions data for the same 3-month period in 2006. Table 1 summarizes the 2006 and 2008 emissions rates, and associated percent reductions, that the EPA used in support of the 2012 FIP.<sup>26</sup>

**Table 1–Ash Grove Midlothian Monthly NO<sub>x</sub> Emissions, June through August, 2006-2008**

	June through August 2006				June through August 2008				Percentage Reduction (%)
	Emission Rate (lb/ton clinker)				Emission Rate (lb/ton clinker)				
	June	July	August	Average	June	July	August	Average	
Kiln 1	5.2	5.0	4.5	4.9	1.7	1.6	2.2	1.8	62.5
Kiln 2	5.0	4.1	3.9	4.4	2.7	2.6	2.8	2.7	37.7
Kiln 3	5.0	4.4	4.2	4.5	2.9	2.6	2.5	2.7	40.5

When the control effectiveness values for all three kilns were averaged together, the EPA found that SNCR achieved a 47.5% reduction in NO<sub>x</sub>.

During the public comment period for the 2012 FIP, commenters questioned the usefulness of the Midlothian data in setting emission limits for other long kilns. Oldcastle has repeated some of those concerns in its recent submittals to the EPA that request a less stringent emission limit. In particular, the previous commenters, and now Oldcastle, pointed to the fact the Midlothian NO<sub>x</sub> emission rates (in lb/ton clinker) in subsequent years (2009 and 2010) were much higher than in 2008. In response to comments on the 2012 FIP, we suggested that these higher NO<sub>x</sub> emission rates indicated that SNCR was not utilized to the fullest extent in 2009 and 2010 and thus were not representative of the potential control efficiency of SNCR. Based on

<sup>26</sup> Ash Grove Midlothian Plant Actual Emissions Data, 2005-2010, obtained from TCEQ.

information recently obtained from Ash Grove Cement, we have been able to confirm that SNCR was underutilized in those two years.<sup>27</sup> In 2008, while the Midlothian kilns were not yet subject to a NO<sub>x</sub> emission limit associated with the operation of SNCR, Ash Grove operated SNCR on the three kilns in order to understand how the control technology would work in preparation for upcoming emission requirements. Then, beginning in 2009, the Midlothian facility was required to comply with a facility-wide SIP emission limit of 4.41 tons NO<sub>x</sub>/day during the ozone season.<sup>28</sup> Also, demand for cement was low during 2009 and 2010. As a result, Ash Grove was often able to meet the facility-wide emission limit with limited use of SNCR because one or more of the kilns was idle. For example, in 2009, SNCR was only operated for 131, 1,051, and 142 hours, respectively on kilns 1, 2, and 3.<sup>29</sup> Subsequently, starting in March 2011, in accordance with a settlement agreement, the Midlothian kilns were individually required to comply with a 30-day rolling average emission limit of 3.6 lb/ton clinker at all times throughout the year.<sup>30</sup> Consequently, and despite higher demand for cement, NO<sub>x</sub> emissions (in lb/ton clinker) dropped significantly when compared to 2009 and 2010. Therefore, the SNCR performance data for Midlothian considered by the EPA during the 2012 FIP development (2006–2008 data) was reliable and remains informative in setting a BART emission limit for the Trident kiln. Regardless, as noted further in this preamble, the EPA is now in possession of additional SNCR performance data for long kilns obtained through consent decree control technology demonstrations. This more recent SNCR performance data, along with earlier data

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<sup>27</sup> Email (with attachments) from Ash Grove Cement Company to EPA of December 6, 2016.

<sup>28</sup> NO<sub>x</sub> Emissions Control Plan for Ash Grove Texas, L. P., Midlothian Texas – Ellis County. Submitted to TCEQ and dated March 3, 2009.

<sup>29</sup> Kiln operating hours taken from spreadsheet attached to Ash Grove email to EPA of December 6, 2016.

<sup>30</sup> March 2011 settlement agreement between Ash Grove Texas, L. P, City of Dallas, Texas, and City of Arlington, Texas.

from the Midlothian kilns, has been used to inform the SNCR performance expectations for the Trident kiln.

Since promulgation of our 2012 FIP, SNCR has been installed on a number of wet or dry long kilns in association with consent decree enforcement actions. SNCR has been installed on 6 long kilns (2 wet, 4 dry) owned by LaFarge North America Inc., and on an additional long wet kiln owned by the Ash Grove Cement Company.<sup>31</sup> The Ash Grove kiln is the Montana City kiln for which the EPA had earlier established a BART emission limit of 8.0 lb NO<sub>x</sub>/ton clinker (30-day rolling average) in our 2012 FIP.

Each of the kilns subject to a consent decree was required to establish an SNCR-based emission limit through a control technology demonstration. The demonstrations were designed to establish the optimal performance of SNCR, and were carried out through a number of steps, including design report, baseline period, optimization period, and demonstration period.<sup>32</sup> The control effectiveness data for these kilns, along with the data from the 2012 FIP for the three Midlothian kilns, is summarized in the associated Technical Support Document (TSD) prepared by the EPA.<sup>33</sup> The control effectiveness shown for the kilns subject to consent decrees is highly variable and ranges from 29% to 47%, with a mean of 40%. This control effectiveness reflects the percent reduction in the NO<sub>x</sub> emissions between the baseline and demonstration periods. As noted earlier, it does not reflect contemporaneous NO<sub>x</sub> measurements. These values compare favorably to the range of reductions (3-month average) observed for three Midlothian kilns of 37.7% to 62.5%, although the latter are somewhat higher.

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<sup>31</sup> Ash Grove consent decree, August 14, 2013. LaFarge consent decree, July 21, 2014.

<sup>32</sup> Refer to respective consent decree for details.

<sup>33</sup> Technical Support Document – Oldcastle Trident Federal Implementation Plan Revision, March 8, 2017. In particular, See Attachment 1 to the TSD, Summary of SNCR Performance Data for Long Cement Kilns.

The kiln that is most comparable to the Oldcastle Trident kiln is the Ash Grove Montana City kiln because both are long wet kilns and operate in similar environments in Montana. As such, it is reasonable to conclude that the Montana City kiln and the Oldcastle Trident kiln should be able to achieve comparable levels of NO<sub>x</sub> reduction per mole of uncontrolled NO<sub>x</sub> to injected reagent, i.e., at a given molar ratio (NO<sub>x</sub>:NH<sub>3</sub>). During the baseline period of the control technology demonstration for Ash Grove Montana City, lasting approximately six months between March and August 2014, the kiln emitted NO<sub>x</sub> at a rate of 11.6 lb/ton clinker.<sup>34</sup> Following optimization of the SNCR system, the kiln emitted NO<sub>x</sub> at a rate of 7.0 lb/ton clinker over a period of approximately 10 months between July 2015 and April 2016.<sup>35</sup> Again, this reflects an emission reduction between the two periods of roughly 40% based on the use of SNCR. Subsequently, as required by the consent decree, Ash Grove proposed, and the EPA approved, a 30-day rolling average emission limit of 7.5 lb NO<sub>x</sub>/ton clinker, which is lower than the BART emission limit of 8.0 lb NO<sub>x</sub>/ton clinker.<sup>36</sup> The 7.5 lb NO<sub>x</sub>/ton clinker emission limit was approved by the EPA on December 29, 2016.<sup>37</sup>

It is of particular importance that the SNCR installed at the Montana City kiln was ultimately optimized around ammonia slip. The ammonia slip is the concentration of unreacted ammonia as measured at the kiln exhaust that is above the background concentration established during the baseline period. Initially, the optimization of the kiln proceeded “by injecting [increasing] set amounts of ammonia based on the estimated molar ratio of ammonia to the NO<sub>x</sub> emission rate identified during

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<sup>34</sup> See spreadsheet “Summary of Ash Grove Montana City Control Technology Demonstration Data.xlsx”, March 8, 2017, prepared by the EPA.

<sup>35</sup> Department of Justice (DOJ) No. 90-5-2-1-08221, Ash Grove Cement Co., Montana City MT NO<sub>x</sub> Demonstration Report, and Data, August 25, 2016. Also, see spreadsheet titled “Summary of Ash Grove Montana City Control Technology Demonstration Data.xlsx”, March 8, 2017, prepared by the EPA.

<sup>36</sup> Paragraph 28, Ash Grove consent decree.

<sup>37</sup> EPA letter to Ash Grove Cement Co., December 29, 2016.

the baseline period.”<sup>38</sup> However, this approach at times resulted in high levels of ammonia slip and an objectionable detached plume that was visible in the immediate vicinity of the facility.<sup>39</sup> In response, the optimization was then conducted based on an ammonia slip of 10 ppm. This too, at times, resulted in a detached plume. Therefore, Ash Grove ultimately optimized the operation of SNCR around an ammonia slip of 5 ppm. Ash Grove observed that “[r]educing ammonia slip from 10 ppm to 5 ppm did not significantly reduce the effectiveness of the SNCR system, as the average daily NO<sub>x</sub> emission rate during the 14-day period of 5 ppm ammonia slip was 6.4 lb/ton clinker and the maximum daily NO<sub>x</sub> emission rate was 7.3 lb/ton clinker.”<sup>40</sup> The ammonia slip during the demonstration period that followed was then set to a target of 5 ppm, and Ash Grove demonstrated the ability to meet an emission limit of 7.5 lb/ton clinker (30-day rolling average) with this amount of ammonia slip. This approach to optimization established that a control effectiveness of 40% can be reached while addressing the same concerns about excess ammonia that Oldcastle raised in relation to the Trident kiln.

In consideration of the entirety of the SNCR performance results for long kilns now available to the EPA, and in particular that for the similar Ash Grove Montana City kiln, it is appropriate that the emission limit for the Trident kiln reflect a control effectiveness of 40%.

In order to propose a revised BART emission limit based on the updated control effectiveness of SNCR, we next considered the baseline emission rate for the Trident kiln. In the 2012 FIP, EPA used the 99<sup>th</sup> percentile 30-day rolling average NO<sub>x</sub> emission rate of 12.6 lb/ton clinker for the period 2008–2011 as the baseline rate for calculating the BART emission limit. Applying a 50% reduction to

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<sup>38</sup> Department of Justice (DOJ) No. 90-5-2-1-08221, Ash Grove Cement Co., Montana City MT NO<sub>x</sub> Optimization Report, and associated data, June 16, 2015, p. 5. Also, see spreadsheet titled “Summary of Ash Grove Montana City Control Technology Demonstration Data.xlsx”, March 8, 2017, prepared by the EPA.

<sup>39</sup> Ibid, see photographs in Appendix A and B.

<sup>40</sup> Ibid, 4.

the 99<sup>th</sup> percentile figure yielded 6.3 lb NO<sub>x</sub>/ton clinker. To allow for a sufficient margin of compliance for a 30-day rolling average emission limit that would apply at all times, including startup, shutdown and malfunction, we set the BART emission limit at 6.5 lb/ton clinker.<sup>41</sup>

At the EPA's request, Oldcastle submitted updated 30-day rolling average emissions data for the period of 2008 through 2016.<sup>42</sup> The EPA evaluated this data in order to determine whether the baseline value of 12.6 lb NO<sub>x</sub>/ton clinker used in the 2012 FIP remains a reasonable baseline for the purpose of setting the BART emission limit. The 99<sup>th</sup> percentile 30-day rolling average from the 9-year period is 13.9 lb NO<sub>x</sub>/ton clinker. In its February 13, 2017 submittal to the EPA, Oldcastle (through Bison Engineering, Inc.,) proposed that the updated baseline value be used to calculate the BART emission limit. However, this baseline value is the result of a short period of unusually high daily NO<sub>x</sub> emissions that occurred on various days between September and November 2012. Oldcastle stated that one likely cause of the high NO<sub>x</sub> emissions during this time period was the result of ash ring buildup inside the kiln. Oldcastle also noted that "ash ring build-up is a well-known problem that can develop in cement and lime kilns," and it can "disrupt normal kiln mixing and heat transfer and can degrade fuel efficiency, effects that would tend to increase NO<sub>x</sub> emissions on a per-ton of production basis."<sup>43</sup> Oldcastle also advocated that the high NO<sub>x</sub> emissions in late 2012 should be included when calculating the 99<sup>th</sup> percentile 30-day rolling average baseline emission rate used to calculate the BART emission limit because, though the emissions are atypical, they nonetheless represent operating conditions that may be anticipated to occur in the future. However, when compared to the emissions for the 9-year period as a whole, the emissions during late 2012 appear to

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<sup>41</sup> 77 FR 57881.

<sup>42</sup> Email from Bison Engineering, Inc. to the EPA of February 7, 2017, with attached spreadsheet.

<sup>43</sup> Bison Engineering, Inc., letter to the EPA (February 13, 2017) at 2.

reflect exceptional circumstances.<sup>44</sup> Indeed, in the 4-year period that followed, 2013 through 2016, the 99<sup>th</sup> percentile 30-day rolling average was identical to that used in the 2012 FIP (i.e., 12.6 lb NO<sub>x</sub>/ton clinker).<sup>45</sup> In essence, the emissions in late 2012 represent an upset condition that should not be considered when calculating the BART emission limit. Moreover, the original emissions from 2008-2011, together with the emissions for 2013 through 2016, yield 8 years of data; this is more than sufficient for establishing the amount of NO<sub>x</sub> entering the SNCR treatment zone when the kiln is properly operated and maintained. Thus, the EPA concludes that an emission rate of 13.9 lb NO<sub>x</sub>/ton clinker is not an appropriate emissions baseline for purposes of setting the BART emission limit.

Moreover, immediately after the ash ring buildup, the daily emissions data shows that Oldcastle did not operate the kiln between November 27 and December 1, 2012. Presumably, during this 5-day shutdown period, Oldcastle took corrective measures to remove the ash rings from the kiln and perform any other necessary repairs, thereby returning the kiln to normal operation. Emissions levels returned to typical levels immediately following the shutdown. Also, background information shared by Oldcastle indicates that proper kiln design, operation and maintenance can help to prevent ash ring formation.<sup>46</sup> Thus, it is within Oldcastle's control to prevent ash ring formation, or at the very least, to promptly take corrective action when it does occur. The BART emission limit should be set such that an unreasonable delay in correcting an ash ring constitutes a violation of the limit. Given that compliance with the BART emission limit is assessed over a 30-day rolling period, Oldcastle would be able to anticipate whether high short-term NO<sub>x</sub> emissions that occur due to ash ring deposits may lead to non-compliance with the BART emission limit. In such case, Oldcastle would be able to take

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<sup>44</sup> This is depicted graphically in the chart included in Attachment 2 to the TSD, showing that the emissions in late 2012 were far higher than any other period.

<sup>45</sup> See spreadsheet titled "Oldcastle Trident NO<sub>x</sub> emissions 2008 through 2016 with additions by EPA.xlsx," March 8, 2017, prepared by the EPA.

<sup>46</sup> Ring and Snowball Formation in the Kiln, presentation by Pradeep Kumar, undated. Available in the docket.

timely and appropriate operation and maintenance measures, and if necessary, shut down the kiln to remove the ash deposits – an action that they presumably would eventually take in any case to return the kiln to efficient operation.

Finally, we note that the Oldcastle Trident and Ash Grove Montana City kilns have very similar NO<sub>x</sub> baseline emissions (pre-SNCR) when viewed as the 99<sup>th</sup> percentile 30-day rolling average. Baseline data collected for the Montana City kiln between March and August 2014 in association with the control technology demonstration shows that the 99<sup>th</sup> percentile 30-day rolling average emission rate was 12.8 lb NO<sub>x</sub>/ton clinker.<sup>47</sup> Though this baseline data was collected over a much shorter time than that for the Trident kiln, it is nearly equal to the value for Trident of 12.6 lb NO<sub>x</sub>/ton clinker. This is another indication that the two kilns should be able to achieve similar levels of controlled NO<sub>x</sub> emissions with SNCR.

Again, in view of the SNCR performance results for long kilns now available to the EPA, it is appropriate that the emission limit for the Trident kiln reflect a control effectiveness of 40%. In addition, in consideration of the 9 years of baseline data from 2008 through 2016, it is appropriate to retain the original baseline used in the 2012 FIP of 12.6 lb NO<sub>x</sub>/ton clinker (99<sup>th</sup> percentile 30-day rolling average). Applying the 40% control effectiveness to this baseline emission rate yields a value of 7.6 lb NO<sub>x</sub>/ton clinker. This compares very favorably with the emission limit of 7.5 lb NO<sub>x</sub>/ton clinker set through a control technology demonstration for the Ash Grove Montana City kiln, particularly given that the two kilns have very similar baseline emissions (as 99<sup>th</sup> percentile 30-day rolling averages). Accordingly, we propose to revise the emission limit for the Trident kiln from the

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<sup>47</sup> See spreadsheet titled “Summary of Ash Grove Montana City Control Technology Demonstration Data.xlsx,” March 8, 2017, prepared by the EPA.

current value of 6.5 lb NO<sub>x</sub>/ton clinker to 7.6 lb NO<sub>x</sub>/ton clinker (30-day rolling average).<sup>48</sup> We believe this is consistent with the new information available to the EPA, and will also address the concerns expressed by Oldcastle regarding unacceptable levels of ammonia slip, reagent costs, and creation of a localized detached plume.

Although we find that the recent test data from multiple kilns, and particularly that for the Ash Grove Montana City kiln, is a very strong indicator of what can be expected for the Trident kiln, we again acknowledge that it is challenging to predict the performance of SNCR when applied to long kilns. Accordingly, we invite comment on whether, in place of the BART emission limit of 7.6 lb NO<sub>x</sub>/ton clinker proposed here, the emission limit for the Trident kiln should be established through a control technology demonstration in a manner similar to that in the consent decrees for the Ash Grove and LaFarge kilns discussed earlier. If so, we would most likely establish an interim emission limit that would be in place until a final emission limit is demonstrated. If we were to require a control technology demonstration, those requirements would also likely be similar to those for two cement kilns in Arizona subject to controls under the reasonable progress provisions of the RHR (though the demonstration requirements were ultimately removed in a revised action).<sup>49,50</sup> The Agency is also asking if interested parties have additional information or comments on a control technology demonstration approach. The Agency will take the comments into consideration in a final promulgation. Supplemental information and comments received on this approach may lead the Agency to adopt final FIP regulations that reflect a different option, or impact other proposed regulatory provisions, which differ from the proposal.

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<sup>48</sup> The performance level being achieved by Ash Grove is representative of the achievable level for Oldcastle. 40 CFR part 51, Appendix Y, section IV.D.3.

<sup>49</sup> See for example 79 FR 52420 (September 3, 2014), 52486 (control technology demonstration requirements for the Clarkdale Cement Plant and Rillito Cement Plant at 40 CFR 52.145(k)(6)), 52494-52496 (Appendix A to 52.145, Cement Kiln Control Technology Demonstration Requirements) (FR notice in the docket for this action).

<sup>50</sup> 81 FR 83144 (November 21, 2016, final rule revising portions of the FIP applicable to the Clarkdale and Rillito cement plants) (FR notice in the docket for this action).

In the 2012 FIP, we promulgated a compliance deadline for the Trident kiln of five years from the date the final FIP became effective. The effective date for the FIP was October 18, 2012; therefore, the compliance date is October 18, 2017. We are not proposing to change that date here; that is, we are retaining the compliance date for the Trident kiln of October 18, 2017. We also do not propose to alter the monitoring, record keeping, and reporting requirements established in the 2012 FIP that relate to compliance with the BART emission limit for NO<sub>x</sub>.

**V. Blaine County #1 Compressor Station Reasonable Progress Error Correction**

The Blaine County #1 Compressor Station, located near Havre, Montana, serves as a natural gas gathering, transmission, and compressor station with two 5,500-hp Ingersoll-Rand KVR 616 natural gas compressor engines (Engine #1 and Engine #2). The PM and SO<sub>2</sub> emissions from these two engines are relatively low (0.32 tons per year (tpy) of PM and 0.02 tpy of SO<sub>2</sub> per engine), and NO<sub>x</sub> emissions are the only potential contributor to regional haze.<sup>51</sup>

As described in our April 20, 2012 proposal, our reasonable progress analysis identified point sources in Montana that potentially affect visibility in Class I areas by starting with the list of sources included in the 2002 National Emissions Inventory (NEI).<sup>52</sup> We divided the sum of actual SO<sub>2</sub> and NO<sub>x</sub> emissions (Q) in tons per year (tpy) from each source in the inventory by its distance (D) in kilometers to the nearest Class I Federal Area. The Q/D analysis for the Blaine County #1 Compressor Station is shown in Table 2 below:

**Table 2–Q/D Analysis for the Blaine County #1 Compressor Station**

Source	SO <sub>2</sub> + NO <sub>x</sub> emissions (tons)	Distance to nearest Class I area (km)	Q/D (tons/km)
Devon Energy Production Company,	1,155	107	11

<sup>51</sup> 77 FR 24068.

<sup>52</sup> An exception to the use of the 2002 NEI was that for Colstrip Units 3 and 4 we used NEI data from 2010.

L.P., Blaine County #1 Compressor Station			
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We used a Q/D value of 10 as our threshold for further evaluation for reasonable progress controls based on the Federal Land Manager’s (FLM) Air Quality Related Values Work Group guidance amendments<sup>53</sup> for initial screening criteria, as well as statements in EPA’s BART Guidelines.<sup>54</sup> Based on the Blaine County #1 Compressor Station’s Q/D value of 11, this source was evaluated for further controls using the four reasonable progress factors.

Our evaluation only considered NO<sub>x</sub> emissions as PM and SO<sub>2</sub> emissions were relatively small and thus not significant contributors to regional haze. Based on the 4 reasonable progress factors, we proposed to find non-selective catalytic reduction (NSCR) a reasonable control to address reasonable progress for the initial planning period, with an emission limit of 21.8 lb NO<sub>x</sub>/hr (30-day rolling average).<sup>55</sup> Our final rule included the emission limit of 21.8 lb NO<sub>x</sub>/hr (average of three stack test runs) with a compliance date as expeditiously as possible, but not later than July 31, 2018.<sup>56</sup>

The EPA received a letter from Devon Energy Production Company, L.P. (Devon)<sup>57</sup> dated August 14, 2012, which was after the public comment period for our proposal had closed on June 19, 2012, and was the day before our final action was signed on August 15, 2012. In this letter, Devon asserted, among other things, that the Q/D calculation is in error. Specifically,

<sup>53</sup> Federal Land Managers’ Air Quality Related Values Work Group (FLAG); Phase I Report – Revised 2010. Natural Resource Report NPS/NRPC/NRR—2010/232.

<sup>54</sup> The relevant language in our BART Guidelines reads, “Based on our analyses, we believe that a State that has established 0.5 deciviews as a contribution threshold could reasonably exempt from the BART review process sources that emit less than 500 tpy of NO<sub>x</sub> or SO<sub>2</sub> (or combined NO<sub>x</sub> and SO<sub>2</sub>), as long as these sources are located more than 50 kilometers from any Class I area; and sources that emit less than 1000 tpy of NO<sub>x</sub> or SO<sub>2</sub> (or combined NO<sub>x</sub> and SO<sub>2</sub>) that are located more than 100 kilometers from any Class I area.” (See 40 CFR part 51, appendix Y, section III, How to Identify Sources “Subject to BART.”) The values described equate to a Q/D of 10.

<sup>55</sup> 77 FR 24069 (April 20, 2012).

<sup>56</sup> 77 FR 57916 (September 18, 2012) and 77 FR 24069 (April 20, 2012).

<sup>57</sup> Devon Energy Production Company, L.P. was the owner of the Blaine County #1 Compressor Station.

Devon claimed that the distance, or “D” in the Q/D calculation, for Blaine County #1 Compressor Station should be 133 kilometers to the closest Class I area, the UL Bend Wilderness Area, instead of 107 kilometers as stated in our April 2012 proposal. Adjusting for this alleged error, the new Q/D calculation becomes 8.7, which falls below the threshold of 10 for further evaluation for reasonable progress controls. Based on this error, Devon concluded that Blaine County #1 Compressor Station should be removed from any further consideration of emission reductions.

The EPA agrees with Devon’s claim in its August 14, 2012 letter that our Q/D calculation for the Blaine County #1 Compressor Station is in error. Specifically, we find that the distance (D) between the Blaine County #1 Compressor Station and the nearest Class I area, UL Bend Wilderness Area, to be 133 kilometers and not 107 kilometers as stated in our proposed rule.<sup>58</sup> The corrected Q/D analysis for the Blaine County #1 Compressor Station is shown in Table 3 below:

**Table 3–Corrected Q/D Analysis for the Blaine County #1 Compressor Station**

Source	SO <sub>2</sub> + NO <sub>x</sub> emissions (tons)	Distance to nearest Class I area (km)	Q/D (tons/km)
Blaine County #1 Compressor Station	1,155	133	8.7

Under CAA section 110(k)(6), whenever EPA determines that our action in promulgating a plan was in error, we may in the same manner revise the action. The EPA promulgated the reasonable progress requirements for Blaine County #1 Compressor Station pursuant to notice-and-comment rulemaking under CAA section 307(d), and is now proposing to revise those requirements using the same rulemaking procedures. In this case, it is appropriate to exercise our

<sup>58</sup> Latitude-Longitude location for the Blaine County #1 Compressor Station is N48.422443, W109.420960.

discretion to correct the error in order to maintain consistency in applying the same screening threshold Q/D value across all Montana sources identified in the 2002 NEI. We are proposing to correct the Q/D analysis for the Blaine County #1 Compressor Station so that the revised Q/D value would be 8.7, which is below the threshold value of 10. This would remove the source from further evaluation for reasonable progress controls. Therefore, as part of the error correction we are also proposing to remove the reasonable progress NO<sub>x</sub> emission limit of 21.8 lb/hr (average of three stack test runs) for the Blaine County #1 Compressor Station, Engine #1 and Engine #2 from the FIP. In addition, we propose to remove the corresponding compliance date, test method, and monitoring, recordkeeping, and reporting requirements from the FIP.

#### **VI. Regulatory Text Error Corrections for Compliance Determinations for Particulate Matter**

Finally, we are proposing to also use our authority under CAA section 110(k)(6) to correct errors in the regulatory text in our September 18, 2012 final action related to compliance determinations for particulate matter for EGUs and cement kilns. In response to a verbal communication<sup>59</sup> received on our proposed rule in June 2012, we stated our intent<sup>60</sup> in section V. Changes From Proposed Rule and Reasons for the Changes of our final rule to finalize the compliance determinations for PM BART emission limits at EGUs and cement kilns, found at 40 CFR 52.1396(f)(1) and (f)(2), differently than had been proposed, in order to allow sources to retain the PM stack testing schedule already established under state permits. This intended revision was to allow sources to use the results from a stack test meeting the requirements of 40 CFR 52.1396(f)(1) and (f)(2) that was completed within 12 months prior to the compliance deadline in lieu of the first stack test required per 40 CFR 52.1396(f)(1) and (f)(2) within 60 days

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<sup>59</sup> Meeting between Holcim and EPA Region 8. June 5, 2012, memorandum.

<sup>60</sup> 77 FR 57912 (September 18, 2012).

of the compliance deadline. Our intention was that if this option were selected, then the next annual stack test would be due no more than 12 months after the stack test that was used. However, in the regulatory text of our final action, we inadvertently omitted a portion of this intended revision from 40 CFR 52.1396(f)(1) and the entire intended revision from 40 CFR 52.1396(f)(2). In addition, we inadvertently stated in the regulatory text found at 40 CFR 52.1396(f)(1) that “results from a stack test meeting the requirements of 40 CFR 52.1396(f)(1) that were completed within 120 days prior to the compliance date can be used by the owner/operator in lieu of the first stack test required” instead of “results from a stack test meeting the requirements of 40 CFR 52.1396(f)(1) that were completed within 12 months prior to the compliance date can be used by the owner/operator in lieu of the first stack test required.”

Thus, we are proposing to correct these errors by amending the regulatory text found at 40 CFR 52.1396(f)(1) and (f)(2) so that both of these sections contain the following sentences after the sentence in section 40 CFR 52.1396(f)(1) and (f)(2) that requires the first annual PM performance stack test for PM within 60 days after the PM compliance deadline:

“The results from a stack test meeting the requirements of this paragraph that was completed within 12 months prior to the compliance deadline can be used in lieu of the first stack test required. If this option is chosen, then the next annual stack test shall be due no more than 12 months after the stack test that was used.”

## **VII. Coordination with FLMs**

The Forest Service manages Anaconda-Pintler Wilderness Area, Bob Marshall Wilderness Area, Cabinet Mountains Wilderness Area, Gates of the Mountains Wilderness Area, Mission Mountains Wilderness Area, Scapegoat Wilderness Area, and Selway-Bitterroot Wilderness Area. The Fish and Wildlife Service manages the Medicine Lake Wilderness Area,

Red Rocks Lake Wilderness Area, and UL Bend Wilderness Area. The National Park Service manages Glacier National Park and Yellowstone National Park. These are the Class I Federal areas affected by sources in Montana. The RHR grants the FLMs a special role in the review of regional haze FIPs, summarized in section III.D in this preamble.

As this proposed action is not a required plan revision, the detailed consultation provisions of 40 CFR 51.308(i)(2) do not apply. However, there are obligations to consult on other plan revisions under 40 CFR 51.308(i)(3) and (i)(4). Because this plan revision changes the substance of the FIP, we have consulted with the Forest Service, Fish and Wildlife Service, and the National Park Service. We described the proposed revisions to the regional haze FIP with the Forest Service, the Fish and Wildlife Service, and the National Park Service on Thursday, March 2, 2017 and sent a draft of our proposed regional haze FIP revisions to the Forest Service, the Fish and Wildlife Service, and the National Park Service on March 9, 2017.<sup>61</sup> Based on these actions, we are proposing that we have satisfied the applicable requirements for consultation.

### **VIII. Clean Air Act Section 110(l)**

Under CAA section 110(l), the EPA cannot approve a plan revision that interferes with any applicable requirement concerning attainment and reasonable further progress, or any other applicable CAA requirement. We propose to find that this revision satisfies section 110(l). The previous sections of the notice explain how the FIP revision will comply with applicable regional haze requirements and general SIP requirements such as enforceability. With respect to requirements concerning attainment and reasonable further progress, the Montana Regional Haze FIP, as revised by this action, will result in a significant reduction in emissions compared to current levels. Although this revision will allow an increase in emissions after October 2017 as

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<sup>61</sup> We did not receive any formal comments from the FLM agencies.

compared to the prior FIP, the FIP as a whole will still result in overall NO<sub>x</sub> and SO<sub>2</sub> reductions compared to those currently allowed. In addition, the areas where the Trident cement kiln and the Blaine County #1 Compressor Station are located have not been designated nonattainment for any National Ambient Air Quality Standards (NAAQS). Thus, the revised FIP will ensure a significant reduction in NO<sub>x</sub> and SO<sub>2</sub> emissions compared to current levels in an area that has not been designated nonattainment for the relevant NAAQS at those current levels.

#### **IX. EPA's Proposed Revisions to the 2012 FIP**

In this action, the EPA is proposing to revise the BART NO<sub>x</sub> emission limit in the second line of the table in 40 CFR 52.1396(c)(2) for the Oldcastle Trident kiln from 6.5 lb NO<sub>x</sub>/ton clinker to 7.6 lb NO<sub>x</sub>/ton clinker (30-day rolling averages).<sup>62</sup> We are also proposing to delete the reasonable progress emission limit at 40 CFR 52.1396(c)(3) in our 2012 FIP for the Blaine County #1 Compressor Station as well as the associated compliance date found at 40 CFR 52.1396(d), the compliance determination test method found at 40 CFR 52.1396(e)(5), testing requirements at 40 CFR 52.1396(j), and monitoring, recordkeeping, and reporting requirements found at 40 CFR 52.1396(k) in order to correct the error we made in applying the reasonable progress screening metric, Q/D. In addition, we are proposing to correct errors in the regulatory text of the 2012 FIP for PM determinations for EGUs and cement kilns found at 40 CFR 52.1396(f)(1) and (f)(2) and change references to "Holcim" to "Oldcastle" and "Trident" at 40 CFR 52.1396(a), (c)(2), and (f)(2)(ii). Finally, we are proposing to replace compliance date timeframes in 40 CFR 52.1396(d) with the actual compliance dates based on the effective date of the 2012 FIP. We are not proposing to change any other regulatory text in 40 CFR 52.1396.

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<sup>62</sup> The table in 40 CFR 52.1396(c)(2) currently refers to "Holcim (US) Inc. As described later on, the EPA is also proposing to update this table to reflect the Trident kiln's new ownership.

Montana is on the path towards a SIP and working closely with the Region to make that happen as soon as practicable.

## **X. 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 not a “significant regulatory action” under the terms of Executive Order 12866<sup>63</sup> and was therefore not submitted to the Office of Management and Budget (OMB) for review. This proposed rule applies to only 5 facilities in the State of Montana. It is therefore not a rule of general applicability.

### **B. Paperwork Reduction Act**

This proposed action does not impose an information collection burden under the provisions of the Paperwork Reduction Act (PRA).<sup>64</sup> A “collection of information” under the PRA means “the obtaining, causing to be obtained, soliciting, or requiring the disclosure to an agency, third parties or the public of information by or for an agency by means of identical questions posed to, or identical reporting, recordkeeping, or disclosure requirements imposed on, ten or more persons, whether such collection of information is mandatory, voluntary, or required to obtain or retain a benefit.”<sup>65</sup> Because this proposed rule revises the reporting requirements for 4 facilities and removes all requirements for an additional facility, the PRA does not apply.

### **C. Regulatory Flexibility Act**

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking

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<sup>63</sup> 58 FR 51735, 51738 (October 4, 1993).

<sup>64</sup> 44 U.S.C. 3501 *et seq.*

<sup>65</sup> 5 CFR 1320.3(c) (emphasis added).

requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this proposed rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this proposed rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This rule does not impose any requirements or create impacts on small entities as no small entities are subject to the requirements of this rule.

D. Unfunded Mandates Reform Act (UMRA)

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104-4, establishes requirements for federal agencies to assess the effects of their regulatory actions on State, local, and Tribal governments and the private sector. Under section 202 of UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for final rules with “Federal mandates” that may result in expenditures to State, local, and Tribal governments, in the aggregate, or to the private sector, of \$100 million or more (adjusted for inflation) in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of UMRA generally requires the EPA to identify and consider a reasonable number of regulatory

alternatives and adopt the least costly, most cost-effective, or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 of UMRA do not apply when they are inconsistent with applicable law. Moreover, section 205 of UMRA allows the EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before the EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including Tribal governments, it must have developed under section 203 of UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory actions with significant federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

Under Title II of UMRA, the EPA has determined that this proposed rule does not contain a federal mandate that may result in expenditures that exceed the inflation-adjusted UMRA threshold of \$100 million<sup>66</sup> by State, local, or Tribal governments or the private sector in any one year. The proposed revisions to the FIP would reduce private sector expenditures. Additionally, we do not foresee significant costs (if any) for state and local governments. Thus, because the proposed revisions to the FIP reduce annual expenditures, this proposed rule is not subject to the requirements of sections 202 or 205 of UMRA. This proposed rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments.

E. Executive Order 13132: Federalism

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<sup>66</sup> Adjusted to 2014 dollars, the UMRA threshold becomes \$152 million.

Executive Order 13132, Federalism,<sup>67</sup> revokes and replaces Executive Orders 12612 (Federalism) and 12875 (Enhancing the Intergovernmental Partnership). Executive Order 13132 requires the EPA to develop an accountable process to ensure “meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.”<sup>68</sup> “Policies that have federalism implications” is defined in the Executive Order to include regulations that 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.”<sup>69</sup> Under Executive Order 13132, the EPA may not issue a regulation “that has federalism implications, that imposes substantial direct compliance costs, . . . and that is not required by statute, unless [the federal government provides the] funds necessary to pay the direct [compliance] costs incurred by the State and local governments,” or the EPA consults with state and local officials early in the process of developing the final regulation.<sup>70</sup> The EPA also may not issue a regulation that has federalism implications and that preempts state law unless the Agency consults with state and local officials early in the process of developing the final regulation.

This action does not have federalism implications. The proposed FIP revisions 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, as specified in Executive Order 13132. Thus, Executive Order 13132 does not apply to this action.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

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<sup>67</sup> 64 FR 43255, 43255-43257 (August 10, 1999).

<sup>68</sup> 64 FR 43255, 43257.

<sup>69</sup> Id.

<sup>70</sup> Id.

Executive Order 13175, entitled “Consultation and Coordination with Indian Tribal Governments”, requires the EPA to develop an accountable process to ensure “meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.”<sup>71</sup> This proposed rule does not have tribal implications, as specified in Executive Order 13175. It will not have substantial direct effects on tribal governments. Thus, Executive Order 13175 does not apply to this rule. However, the EPA did send letters to each of the Montana tribes explaining our regional haze FIP revision action and offering consultation.

G. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

This action is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997). The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the 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.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 (66 FR 28355 (May 22, 2001)), because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

Section 12 of the National Technology Transfer and Advancement Act (NTTAA) of 1995 requires Federal agencies to evaluate existing technical standards when developing a new

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<sup>71</sup> 65 FR 67249, 67250 (November 9, 2000).

regulation. Section 12(d) of NTTAA, Public Law 104-113, 12(d) (15 U.S.C. 272 note) directs the EPA to consider and use “voluntary consensus standards” in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs the EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This proposed rulemaking does not involve technical standards. Therefore, the EPA is not considering the use of any voluntary consensus standards.

J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898, establishes federal executive policy on environmental justice.<sup>72</sup> Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

I certify that the approaches under this proposed rule will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous/tribal populations. As explained previously, the Montana Regional Haze FIP, as revised by this action, will result in a significant reduction in emissions compared to current levels. Although this revision will allow an increase in emissions after October 2017 as

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<sup>72</sup> 59 FR 7629 (February 16, 1994).

compared to the prior FIP, the FIP as a whole will still result in overall NO<sub>x</sub> and SO<sub>2</sub> reductions compared to those currently allowed. In addition, the areas where the Trident cement kiln and the Blaine County #1 Compressor Station are located have not been designated nonattainment for any NAAQS. Thus, the revised FIP will ensure a significant reduction in NO<sub>x</sub> and SO<sub>2</sub> emissions compared to current levels and will not create a disproportionately high and adverse human health or environmental effect on minority, low-income, or indigenous/tribal populations. The EPA, however, will consider any input received during the public comment period regarding environmental justice considerations.

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Particulate matter, Sulfur oxides.

Authority: 42 U.S.C. 7401 et seq.

Dated: March 31, 2017.

Debra H. Thomas,  
Acting Regional Administrator,  
Region 8.

**40 CFR part 52 is proposed to be amended as follows:**

**PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS**

1. The authority citation for part 52 continues to read as follows:

**Authority:** 42 U.S.C. 7401 *et seq.*

**Subpart BB—Montana**

2. Section 52.1396 is amended by:

- a. Revising paragraph (a);
- b. Adding a note to paragraph (a);
- c. Revising paragraph (c)(2);
- d. Removing and reserving paragraph (c)(3);
- e. Revising paragraph (d);
- f. Adding a note to paragraph (d);
- g. Removing paragraph (e)(5);
- h. Revising paragraphs (f)(1), (f)(2) introductory text, and (f)(2)(ii); and
- i. Removing and reserving paragraphs (j) and (k).

The revisions and additions read as follows:

**§ 52.1396 Federal implementation plan for regional haze.**

(a) Applicability. This section applies to each owner and operator of the following coal-fired electric generating units (EGUs) in the State of Montana: PPL Montana, LLC, Colstrip Power Plant, Units 1, 2; and PPL Montana, LLC, JE Corette Steam Electric Station. This section also applies to each owner and operator of cement kilns at the following cement production plants: Ash Grove Cement, Montana City Plant; and Oldcastle Materials Cement Holdings, Inc., Trident Plant. This section also applies to each owner and operator of CFAC and M2 Green Redevelopment LLC, Missoula site.

**NOTE TO PARAGRAPH (a):** On June 9, 2015, the NO<sub>x</sub> and SO<sub>2</sub> emission limits for Colstrip Units 1 and 2 and Corette were vacated by court order.

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(c) \* \* \*

(2) The owners/operators of cement kilns subject to this section shall not emit or cause to be emitted PM, SO<sub>2</sub> or NO<sub>x</sub> in excess of the following limitations, in pounds per ton of clinker produced, averaged over a rolling 30-day period for SO<sub>2</sub> and NO<sub>x</sub>:

Source name	PM emission limit	SO <sub>2</sub> emission limit (lb/ton clinker)	NO <sub>x</sub> emission limit (lb/ton clinker)
Ash Grove, Montana City	If the process weight rate of the kiln is less than or equal to 30 tons per hour, then the emission limit shall be calculated using $E = 4.10p^{0.67}$ where E = rate of emission in pounds per hour and p = process weight rate in tons per hour; however, if the process weight rate of the kiln is greater than 30 tons per hour, then the emission limit shall be calculated using $E = 55.0p^{0.11} - 40$ , where E = rate of emission in pounds per hour and P = process weight rate in tons per hour.	11.5	8.0
Oldcastle, Trident	0.77 lb/ton clinker	1.3	7.6

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(d) Compliance date. The owners and operators of the BART sources subject to this section shall comply with the emission limitations and other requirements of this section as follows, unless otherwise indicated in specific paragraphs: Compliance with PM emission limits is required by November 17, 2012. Compliance with SO<sub>2</sub> and NO<sub>x</sub> emission limits is required by April 16,

2013, unless installation of additional emission controls is necessary to comply with emission limitations under this rule, in which case compliance is required by October 18, 2017.

**NOTE TO PARAGRAPH (d):** On June 9, 2015, the NO<sub>x</sub> and SO<sub>2</sub> emission limits, and thereby compliance dates, for Colstrip Units 1 and 2 and Corette were vacated by court order.

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(f) \* \* \*

(1) EGU particulate matter BART emission limits. Compliance with the particulate matter BART emission limits for each EGU BART unit shall be determined by the owner/operator from annual performance stack tests. Within 60 days of the compliance deadline specified in this paragraph (d) of this section, and on at least an annual basis thereafter, the owner/operator of each unit shall conduct a stack test on each unit to measure the particulate emissions using EPA Method 5, 5B, 5D, or 17, as appropriate, in 40 CFR part 60, Appendix A. A test shall consist of three runs, with each run at least 120 minutes in duration and each run collecting a minimum sample of 60 dry standard cubic feet. Results shall be reported by the owner/operator in lb/MMBtu. The results from a stack test meeting the requirements of this paragraph that was completed within 12 months prior to the compliance deadline can be used in lieu of the first stack test required. If this option is chosen, then the next annual stack test shall be due no more than 12 months after the stack test that was used. In addition to annual stack tests, owner/operator shall monitor particulate emissions for compliance with the BART emission limits in accordance with the applicable Compliance Assurance Monitoring (CAM) plan developed and approved in accordance with 40 CFR part 64.

(2) Cement kiln particulate matter BART emission limits. Compliance with the particulate matter BART emission limits for each cement kiln shall be determined by the owner/operator from

annual performance stack tests. Within 60 days of the compliance deadline specified in paragraph (d) of this section, and on at least an annual basis thereafter, the owner/operator of each unit shall conduct a stack test on each unit to measure particulate matter emissions using EPA Method 5, 5B, 5D, or 17, as appropriate, in 40 CFR part 60, Appendix A. A test shall consist of three runs, with each run at least 120 minutes in duration and each run collecting a minimum sample of 60 dry standard cubic feet. The average of the results of three test runs shall be used by the owner/operator for demonstrating compliance. The results from a stack test meeting the requirements of this paragraph that was completed within 12 months prior to the compliance deadline can be used in lieu of the first stack test required. If this option is chosen, then the next annual stack test shall be due no more than 12 months after the stack test that was used.

Clinker production shall be determined in accordance with the requirements found at 40 CFR 60.63(b). Results of each test shall be reported by the owner/operator as the average of three valid test runs. In addition to annual stack tests, owner/operator shall monitor particulate emissions for compliance with the BART emission limits in accordance with the applicable Compliance Assurance Monitoring (CAM) plan developed and approved in accordance with 40 CFR part 64.

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(ii) For Trident, the emission rate (E) of particulate matter shall be computed by the owner/operator for each run in lb/ton clinker, using the following equation:

$$E = (C_s Q_s) / PK$$

Where:

E = emission rate of PM, lb/ton of clinker produced;

$C_s$  = concentration of PM in grains per standard cubic foot (gr/scf);

$Q_s$  = volumetric flow rate of effluent gas, where  $C_s$  and  $Q_s$  are on the same basis (either wet or dry), scf/hr;

P = total kiln clinker production, tons/hr; and

K = conversion factor, 7000 gr/lb,

\* \* \* \* \*

[FR Doc. 2017-07597 Filed: 4/13/2017 8:45 am; Publication Date: 4/14/2017]