



## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

[EPA-R05-OAR-2024-0215; FRL-12351-02-R5]

### Air Plan Approval; Michigan and Minnesota; Revision to Taconite Federal Implementation Plan

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

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is finalizing nitrogen oxide (NO<sub>x</sub>) and/or sulfur dioxide (SO<sub>2</sub>) limits for the indurating furnaces at five taconite facilities in accordance with the procedures set forth in the Federal Implementation Plan (FIP) addressing the requirement for best available retrofit technology (BART) at taconite facilities. EPA is also modifying the Upper Predictive Limit (UPL) equations used to establish NO<sub>x</sub> and SO<sub>2</sub> emission limits under the FIP. Finally, the EPA is revising reporting provisions to require reports be submitted to the EPA electronically. The EPA is finalizing these actions pursuant to Clean Air Act (CAA) sections 110 and 169A.

**DATES:** This final rule is effective on **[insert date 30 days after date of publication in the *Federal Register*]**.

**ADDRESSES:** The EPA has established a docket for this action under Docket ID No. EPA-R05-OAR-2024-0215. All documents in the docket are listed on the <https://www.regulations.gov> web site. Although listed in the index, some information is not publicly available, *i.e.*, Confidential Business Information (CBI), Proprietary Business Information (PBI), or other information the disclosure of which is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either through <https://www.regulations.gov> or at the EPA, Region 5, Air and Radiation Division, 77 West

Jackson Boulevard, Chicago, Illinois 60604. This facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays. The EPA recommends that you telephone Kathleen D’Agostino, at (312) 886-1767 before visiting the Region 5 office.

**FOR FURTHER INFORMATION CONTACT:** For information about this final rule, contact Kathleen D’Agostino, Air and Radiation Division (AR18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois, 60604; telephone number (312)886--1767; email address *dagostino.kathleen@epa.gov*.

**SUPPLEMENTARY INFORMATION:** *Preamble acronyms and abbreviations.* Throughout this preamble the use of “we,” “us,” or “our” is intended to refer to the EPA. We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

BART best available retrofit technology

CAA Clean Air Act

CBI Confidential Business Information

CEMS continuous emissions monitoring system

“Cliffs” Cleveland-Cliffs, Inc., formerly known as Cliffs Natural Resources

“Cliffs facilities” Tilden, Hibbing, Minorca, Northshore, and United Taconite

“Conservation Groups” the National Parks Conservation Association, Coalition to Protect

America’s National Parks, Minnesota Center for Environmental Advocacy, and Sierra Club, collectively

EPA Environmental Protection Agency

FIP Federal Implementation Plan

“Hibbing” Hibbing Taconite Company

“Minorca” Minorca Mine

NESHAPs National Emission Standards for Hazardous Air Pollutants

“Northshore” Northshore Mining Company – Silver Bay

NO<sub>x</sub> nitrogen oxide

NSPS New Source Performance Standards

“Original 2013 FIP” FIP promulgated on February 6, 2013 (78 FR 8706)

PBI Proprietary Business Information

PRA Paperwork Reduction Act

RFA Regulatory Flexibility Act

RHR Regional Haze Rule rule promulgated on July 1, 1999 (64 FR 35714), codified at 40 CFR part 51, subpart P.

SO<sub>2</sub> sulfur dioxide

“Tilden” Tilden Mining Company

UMRA Unfunded Mandates Reform Act

UPL Upper Predictive Limit

“U.S. Steel” United States Steel

UTAC United Taconite

*Organization of this document.* The information presented in this preamble is organized as follows:

I. Background.

II. Public Comments.

III. What Action is the EPA Taking?

IV. Statutory and Executive Order Reviews.

## **I. Background.**

On February 6, 2013 (78 FR 8706), the EPA promulgated a FIP that included BART limits for certain taconite furnaces in Minnesota and Michigan (the “Original 2013 FIP”). On April 16, 2016 (81 FR 21672), in response to petitions for reconsideration and due to new information submitted to the EPA after promulgation of the Original 2013 FIP, the EPA revised

the Original 2013 FIP (the “2016 Revised FIP”). The 2016 Revised FIP revised emission limits for certain facilities and established a process to confirm or modify those emission limits using continuous emissions monitoring system (CEMS) data that were to be collected after the installation of the selected low-NO<sub>x</sub> technology. Under the 2016 Revised FIP, NO<sub>x</sub> emission limits do not become enforceable until the EPA confirms or modifies the emission limits in accordance with set procedures.

On December 4, 2024 (89 FR 96152), the EPA proposed to modify the UPL equations used to establish NO<sub>x</sub> and SO<sub>2</sub> emission limits and to finalize NO<sub>x</sub> and/or SO<sub>2</sub> limits for the indurating furnaces at five taconite facilities in accordance with the procedures set forth in the Original 2013 FIP and 2016 Revised FIP (the “2024 Proposed Rule”). These facilities include Tilden Mining Company (“Tilden”), located at 101 Cci Mine Road, Ishpeming, Michigan; Hibbing Taconite Company (“Hibbing”), located at 4950 Highway 5 North, Hibbing, Minnesota; Minorca Mine (“Minorca”), located at 5950 Old Highway 53, Virginia, Minnesota; Northshore Mining Company – Silver Bay (“Northshore”), located at 10 Outer Drive, Silver Bay, Minnesota, and United Taconite (“UTAC”), located at 8470 Townline Road, Forbes, Minnesota. Tilden, Minorca, Northshore, and UTAC are owned by Cleveland-Cliffs, Inc. (“Cliffs”), formerly known as Cliffs Natural Resources, and Hibbing is jointly owned by Cliffs and United States Steel (“U.S. Steel”). The primary units identified as being subject to BART at Tilden, Hibbing, Minorca, UTAC, and Northshore include the following pelletizing (indurating) furnaces: Tilden Grate Kiln Line 1, Hibbing Straight-Grate Lines 1-3, Minorca Straight-Grate Line 1, UTAC Grate Kiln Lines 1 and 2, and Northshore Straight-Grate Furnaces 11 and 12.<sup>1</sup>

Specifically, the EPA proposed to establish the following NO<sub>x</sub> limits, with compliance to be determined on a rolling 30-day average: 3.0 pounds (lbs) NO<sub>x</sub> per million British Thermal Unit (MMBtu) for all fuels for Tilden Line 1; a crossline average limit of 1.5 lb NO<sub>x</sub>/MMBtu for

---

<sup>1</sup> Fuel sulfur content BART limits were also set for two process boilers and a line dryer at Tilden. Those limits are not impacted by this action.

Hibbing Lines 1, 2, and 3; a crossline average emission limit of 3.0 lbs NO<sub>x</sub>/MMBtu for all fuels for UTAC Lines 1 and 2; and 1.6 lbs NO<sub>x</sub>/MMBtu for Minorca's indurating furnace. The EPA proposed to establish the following SO<sub>2</sub> limits, with compliance to be determined on a rolling 30-day average: 189 pounds of SO<sub>2</sub> per hour (lbs/hr) for all fuels for Tilden Line 1; an aggregate emission limit of 247.8 lbs SO<sub>2</sub>/hr for Hibbing Lines 1, 2, and 3; 68.2 lbs SO<sub>2</sub>/hr for Minorca's indurating furnace; and an aggregate limit of 17.0 lbs SO<sub>2</sub>/hr for Northshore Furnaces 11 and 12. The EPA also proposed to revise the reporting requirements to require reports be submitted to the EPA electronically. An explanation of the CAA requirements, a detailed analysis of how these requirements apply to the taconite facilities, and the EPA's reasons for proposing the modified equations and revised limits were provided in the notice of proposed rulemaking and will not be restated here.

## **II. Public Comments.**

The EPA held a virtual public hearing on December 9, 2024. The EPA received no verbal or written comments at the virtual public hearing. The comment period on the proposed action described above closed on January 21, 2025. The EPA received one comment letter from the National Parks Conservation Association, Coalition to Protect America's National Parks, Minnesota Center for Environmental Advocacy, and Sierra Club (collectively, the "Conservation Groups"). The Conservation Groups' comments are summarized and addressed below.

**1. Comment:** The Conservation Groups stated that Minnesota's six taconite mining facilities and the one in Michigan are significant sources of haze-forming pollution; however, the EPA proposed to approve the facilities' data without conducting the BART analyses required under the CAA and Regional Haze Rule (RHR).<sup>2</sup> The Conservation Groups alleged that the EPA improperly focuses only on the CEMS data provided by the facilities. As a result, the Conservation Groups claim that the EPA's proposed FIP Revision is arbitrary and capricious, in

---

<sup>2</sup> The RHR was published in the *Federal Register* July 1, 1999 (64 FR 35714), codified at 40 CFR part 51, subpart P.

violation of the CAA and the RHR.

**Response:** The EPA disagrees that the Agency proposed emission limits for Tilden, Hibbing, Minorca, Northshore, and United Taconite (the “Cliffs facilities”) without conducting the required BART analysis for each facility. Under the RHR, each State (or in the case of a FIP, the EPA), is 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.<sup>3</sup> On July 6, 2005, 70 FR 39104, the EPA published the Guidelines for BART Determinations Under the RHR at appendix Y to 40 CFR part 51 ( the “BART Guidelines”) to assist States and the EPA in determining which sources should be subject to the BART requirements and in determining appropriate emission limits for each source subject to BART. The BART Guidelines are mandatory for power plants above 750 megawatts and are considered useful guidance for other types of sources. 70 FR 39104, 39108 (July 6, 2005).

In the August 15, 2012, (77 FR 49312-49313) Proposed FIP, the EPA conducted five-step BART analyses for the Cliffs facilities. The five-step analyses were conducted in accordance with the BART Guidelines. In the October 22, 2015, (80 FR 64160, 64166) Proposed FIP Revision, the EPA revised the five-step BART analyses for the Cliffs facilities in response to new information provided by the companies. In a final action on April 12, 2016 (81 FR 21672), (the “2016 Revised FIP”), the EPA determined that low-stoich, low-NO<sub>x</sub> burners (LNBS) (for grate kilns) and LNBS that utilize a combination of water, steam injection, and pre-combustion technologies (for straight-grate kilns) are the appropriate NO<sub>x</sub> reduction technology and constitute BART for these taconite furnaces. Because these technologies had not previously been used on taconite furnaces, the EPA set NO<sub>x</sub> emission limits and set forth a process to confirm or modify those emission limits using CEMS data that were to be collected after the installation of the selected low-NO<sub>x</sub> technology. Under the 2016 Revised FIP, the NO<sub>x</sub> emission limits do not

---

<sup>3</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, 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.

become enforceable until the EPA confirms or modifies the emission limits in accordance with procedures set forth in the 2016 Revised FIP.<sup>4</sup> In the current action, the EPA is modifying the BART emission limits in accordance with the procedures set forth in the 2016 Revised FIP.

Similarly, in the Original 2013 FIP, the EPA determined that existing controls reflected SO<sub>2</sub> BART for Hibbing, Minorca, and Northshore and established SO<sub>2</sub> emission limits for each furnace, with the option or requirement, depending on the facility, that the owner or operator submit one year of CEMS data to the EPA to set a revised SO<sub>2</sub> emission limit calculated using the appropriate UPL equation.<sup>5</sup> The 2016 Revised FIP restricted the sulfur content of the coal burned at Tilden, set an SO<sub>2</sub> emission limit, and required Tilden to submit one year of CEMS data to the EPA to set a revised SO<sub>2</sub> emission limit calculated using the appropriate UPL equation.<sup>6</sup> In this action, the EPA is revising SO<sub>2</sub> emission limits in accordance with the process set forth in the Original 2013 FIP and 2016 Revised FIP. Therefore, as demonstrated in the cited prior rulemakings, the EPA conducted the required BART analyses prior to revising the NO<sub>x</sub> and SO<sub>2</sub> emission limits in this action.

**2. Comment:** The Conservation Groups assert that it is unreasonable for the EPA to propose to relax the emission limits for NO<sub>x</sub> and SO<sub>2</sub> from furnaces at the taconite mining facilities in Michigan and Minnesota.

**Response:** The EPA disagrees that the emission limits in this action are unreasonable. The RHR requires States (or in the case of a FIP, the EPA) to develop an implementation plan that sets emission limits based on the degree of reduction achievable through the application of the best system of continuous emission reduction.<sup>7</sup> As discussed in the EPA's response to Comment 1, with respect to NO<sub>x</sub>, the EPA conducted five-factor BART analyses in the Original 2013 FIP and revised those BART analyses in the 2016 Revised FIP. Because the technologies

---

<sup>4</sup> See e.g., 40 CFR 52.1235(b)(1)(ii)(1).

<sup>5</sup> See 40 CFR 52.1235 (b)(2)(ii),(v), and (vi).

<sup>6</sup> See 40 CFR 52.1183(k)(3).

<sup>7</sup> See 40 CFR 51.301 "Best Available Retrofit Technology (BART)."

identified in the BART analyses had not previously been used on taconite furnaces, the EPA set NO<sub>x</sub> emission limits and established a process to either confirm or modify those emission limits within established ranges using CEMS data that were to be collected after the installation of the selected low-NO<sub>x</sub> technology. The 2016 Revised FIP also allowed facilities to request for EPA approval a single NO<sub>x</sub> limit for all fuels.<sup>8</sup> The EPA is not modifying the NO<sub>x</sub> BART determinations in the 2016 Revised FIP. Rather, in accordance with both the 2016 Revised FIP and general BART requirements, the EPA is finalizing limits for these facilities that reflect the degree of reduction achievable utilizing the control technology identified in the 2016 Revised FIP BART determinations, consistent with the process set forth in the 2016 Revised FIP.

As discussed in the EPA's response to Comment 1, with respect to SO<sub>2</sub>, the Agency conducted five-factor BART analyses in the Original 2013 FIP and 2016 Revised FIP in which the Agency identified BART controls, established SO<sub>2</sub> emission limits, and provided a process for modifying those limits after the collection of CEMS data.<sup>9</sup> In this action, the EPA is not attempting to modify those BART determinations; rather, the Agency is modifying SO<sub>2</sub> emission limits for these facilities to reflect the degree of reduction achievable utilizing the BART controls identified in accordance with the process set forth in the Original 2013 FIP and 2016 Revised FIP.

**3. Comment:** The Conservation Groups assert that, although U.S. Steel's Keetac mine emission limits appear in a second settlement agreement, the EPA's proposal does not mention this information and does not propose to revise the Keetac mine emission limits in the proposed rulemaking.

**Response:** This action addresses NO<sub>x</sub> and SO<sub>2</sub> emission limits only for the indurating furnaces at the Cliffs taconite pellet production facilities, not the mines. The EPA proposed a

---

<sup>8</sup> The 2016 Revised FIP allowed each respective facility to seek single NO<sub>x</sub> limits for Tilden at 40 CFR 52.1183(k)(1)(viii), and for UTAC at 40 CFR 52.1235(b)(1)(iv)(A)(8), and 40 CFR 52.1235(b)(1)(iv)(B)(8).

<sup>9</sup> The 2016 Revised FIP allowed each respective facility to seek single NO<sub>x</sub> limits for Tilden at 40 CFR 52.1183(k)(1)(viii), and for UTAC at 40 CFR 52.1235(b)(1)(iv)(A)(8), and 40 CFR 52.1235(b)(1)(iv)(B)(8).

separate rule for the Keetac facility on April 24, 2025, at 90 FR 17233.

**4. Comment:** The Conservation Groups assert that the EPA's proposal references the facilities' CEMS data, through which the taconite mining facilities claim they are unable to meet the EPA's BART emission limits. The Conservation Groups further assert that even if the CAA or RHR could be interpreted to allow implementation of BART via such a short-circuited approach, the EPA cannot rely on only the CEMS data to ensure reasonable progress.

**Response:** The EPA disagrees with Conservation Groups' contention that the EPA relied on CEMS data to ensure reasonable progress. In this action, the EPA is finalizing NO<sub>x</sub> BART emission limitations for indurating furnaces at Tilden, Hibbing, UTAC, and Minorca and SO<sub>2</sub> BART emission limits for indurating furnaces at Tilden, Hibbing, Minorca, and Northshore in accordance with the procedures set forth in the Original 2013 FIP and 2016 Revised FIP. The EPA is not promulgating long-term strategies or establishing reasonable progress goals for Minnesota or Michigan. Both States submitted, and the EPA approved, regional haze State Implementation Plans (SIPs) for the first planning period.

As discussed in the EPA's responses to Comments 1 and 2, the Agency followed the BART process set forth in the RHR at 40 CFR part 51, subpart P and the BART Guidelines. As explained in other responses above, the EPA's five-factor SO<sub>2</sub> BART analyses for Hibbing, Minorca, and Northshore were set forth in the proposed Original 2013 FIP and the Agency's five-factor NO<sub>x</sub> BART analyses for Tilden, Hibbing, UTAC, and Minorca and SO<sub>2</sub> BART analysis for Tilden were set forth in the proposed 2016 Revised FIP. The EPA's NO<sub>x</sub> and SO<sub>2</sub> BART determinations were finalized in the Original 2013 FIP and 2016 Revised FIP. *See* response to Comment 1.

On June 12, 2012 (77 FR 34801), the EPA approved Minnesota's regional haze plan for the first implementation planning period as satisfying the applicable requirements in 40 CFR 51.308 except for BART emission limits for the taconite facilities. Among the regional haze plan elements approved were Minnesota's long-term strategy for making reasonable progress toward

visibility goals. Minnesota's long-term strategy did not rely on the achievement of any particular degree of emission control from the taconite plants to achieve reasonable progress goals. Rather, Minnesota evaluated emission controls from other industrial sectors and facilities in the area to achieve progress goals.

On December 3, 2012 (77 FR 71533), the EPA approved Michigan's regional haze plan for the first implementation planning period as satisfying the applicable requirements in 40 CFR 51.308 except for BART emission limits for Tilden, St. Mary's Cement, and Escanaba Paper Company. Among the regional haze plan elements approved was Michigan's long-term strategy for making reasonable progress toward visibility goals. Michigan's long-term strategy did not rely on the achievement of any particular degree of emission control from the taconite plants to achieve reasonable progress goals. The EPA is currently reconsidering the RHR and may make changes to this determination after the rulemaking, if appropriate.

**5. Comment:** The Conservation Groups assert that the EPA did not propose to require that the taconite sources optimize their emission control systems even though the EPA's Original 2013 FIP determined that the taconite sources should be able to meet control efficiencies substantially greater than seen in the CEMS reports. The Conservation Groups assert that the EPA has repeatedly found that optimization of emission controls is highly cost effective and thus the EPA must require that the taconite sources optimize the emission control systems and ensure that the FIP emission limits reflect the best system of continuous emission reduction achievable.

**Response:** The EPA disagrees that the Original 2013 FIP or the 2016 Revised FIP required that an affected source "optimize" NO<sub>x</sub> reduction technology. The 2016 Revised FIP required facilities to submit an engineering report and modeling of the NO<sub>x</sub> reduction control technology being installed, including process and control technology variables that impact NO<sub>x</sub> emissions control technology performance and how these variables can be adjusted to reduce NO<sub>x</sub> emissions. The limit confirmation and modification process set forth in the 2016 Revised FIP further specifies that only CEMS data that meet both pellet quality specifications and proper

furnace burner operation parameters be used when calculating the final emission limit and may exclude data resulting from operations inconsistent with the reported design parameters of the NO<sub>x</sub> reduction control technology installed. When calculating the emission limits, the EPA only used data resulting from operations consistent with the design parameters of the NO<sub>x</sub> reduction control technology specified in each respective engineering report.

**6. Comment:** The Conservation Groups assert that the EPA lacks authority to set an alternative BART average emission limit at Hibbing Lines 1, 2 and 3 that is less stringent than controlling BART at each of the individual units. According to the Conservation Groups, the EPA calculated the individual BART emission limits for the three Hibbing Lines as follows: 1.5 lbs NO<sub>x</sub>/MMBtu for Line 1; 1.4 lbs NO<sub>x</sub>/MMBtu for Line 2; and 1.5 lbs NO<sub>x</sub>/MMBtu for Line 3. The EPA's BART Guidelines allow a source "to 'average' emissions across any set of BART-eligible emission units within a fenceline, so long as the emission reductions from each pollutant being controlled for BART would be equal to those reductions that would be obtained by simply controlling each of the BART-eligible units that constitute [a] BART-eligible source." The EPA's 2024 Proposed Rule explains that the Agency averaged the single line limits described above and calculated a crossline 720-hour average emission limit of 1.5 lbs NO<sub>x</sub>/MMBtu. However, the Conservation Groups assert that the result of an average of those three values (1.4, 1.5 and 1.5) is 1.46. Thus, the Conservation Groups assert that the EPA must not use a value of 1.5 because that would not be equal to reductions controlled at Line 2.

**Response:** The EPA disagrees with the Conservation Groups' assertion that the Agency does not have the authority to set alternative average emission limits as calculated. As the Conservation Groups point out, the BART Guidelines allow "sources to 'average' emissions across any set of BART-eligible emission units within a fenceline, so long as the emission reductions from each pollutant being controlled for BART would be equal to those reductions that would be obtained by simply controlling each of the BART-eligible units that constitute [a] BART-eligible source." Hibbing operates three identical furnaces (Line 1, Line 2, and Line 3)

and installed the same burner design on each furnace. Therefore, emission reductions are equal to the reductions that would be obtained by controlling each BART-eligible unit. The difference in individual NO<sub>x</sub> limits is due to variations in CEMS data across the three units during the data collection period.<sup>10</sup> EPA regulations such as New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAPs) generally establish emissions limits at two significant figures. In addition, the BART Guidelines contain presumptive NO<sub>x</sub> and SO<sub>2</sub> emissions limits for certain types of utility boilers, all set at two significant figures. For Hibbing, the EPA averaged emissions across the three lines and calculated a crossline average emission limit of 1.5 lbs NO<sub>x</sub>/MMBtu. While the average of 1.5, 1.4, and 1.5 is 1.46 lbs NO<sub>x</sub>/MMBtu, all NO<sub>x</sub> emission limits for the taconite furnaces have been set at two significant figures and 1.46 rounds to 1.5.

**7. Comment:** The Conservation Groups assert that the EPA did not include full BART analyses for the taconite sources. The Conservation Groups further assert that the EPA did not evaluate the BART factors here to ensure that the proposed emission limitation revisions satisfy those factors.

**Response:** The EPA disagrees with this comment. *See* response to Comment 1.

**8. Comment:** To conduct compliant BART analyses for the taconite sources subject to BART, the Conservation Groups assert that the EPA should have considered the available control train that the Conservation Groups discuss in their 2024 Minnesota Comments, which likely would result in lower emissions limits than included in the 2016 Revised FIP.<sup>11</sup> The Conservation Groups assert that the EPA has never codified that BART is determined at one time. To the extent that the EPA believes that the Agency's prior BART determinations for the taconite sources still serve as valid BART determinations when revised by new data, the Conservation Groups assert that the EPA did not articulate any such rationale. CAA section

---

<sup>10</sup> *See* Hibbing Emission Limit Calculations, available in the docket for this action.

<sup>11</sup> *See* Docket EPA-R05-OAR-2022-0974.

169A(b)(2) makes clear that BART is a mandatory part of “each applicable implementation plan” and expressly requires that States (or, in the case of a FIP, the Administrator) “includ[e]” BART for “each” eligible source.

**Response:** The EPA disagrees that this action requires new BART analyses. As the Conservation Groups note, CAA section 169A(b)(2)(A) requires “each applicable implementation plan” to include requirements to install and operate BART. While the CAA does not define the applicable implementation plans, the RHR does. Under the RHR at 40 CFR 51.308(d), “States were required to submit SIPs addressing regional haze visibility impairment in 2007, which covered what we refer to as the first implementation period (2008–2018).” 82 FR 3078, 3082 (January 10, 2017) (the “2017 RHR”). For subsequent implementation periods, “[e]ach State identified in § 51.300(b) must revise and submit its regional haze implementation plan revision to EPA by July 31, 2021, July 31, 2028, and every 10 years thereafter.” 40 CFR 51.308(f).

In the 2017 RHR, the EPA noted “States were required to undertake the BART determination process during the first implementation period. The BART requirement was a one-time requirement. . . .” 82 FR 3078, 3083 (January 10, 2017).<sup>12</sup> Therefore, while CAA section 169A(b)(2)(A) requires “each applicable implementation plan” to include requirements to go through the BART determination process, the RHR establishes the various implementation plans under 40 CFR 51.308(b) and (f) and only requires undergoing the BART determination process in the first implementation plan under 40 CFR 51.308(e). Regardless, the EPA agrees that BART was an explicit first implementation period requirement and, as part of the first implementation

---

<sup>12</sup> See also, August 2019 *Guidance on Regional Haze State Implementation Plans for the Second Implementation Period*, at A-3, [https://www.epa.gov/sites/default/files/2019-08/documents/8-20-2019\\_-\\_regional\\_haze\\_guidance\\_final\\_guidance.pdf](https://www.epa.gov/sites/default/files/2019-08/documents/8-20-2019_-_regional_haze_guidance_final_guidance.pdf). “BART. As a one-time requirement during the first implementation period, 40 CFR 51.308(e) directed states to evaluate potential BART controls at certain larger, often uncontrolled, older stationary sources in order to address visibility impacts from these sources. States were required to conduct five-factor BART determinations for ‘BART-eligible’ sources that are anticipated to cause or contribute to any visibility impairment in a Class I area. As an alternative to requiring source-specific BART controls, states have the flexibility to adopt an emissions trading program or other alternative program as long as the alternative provides greater reasonable progress towards improving visibility than BART and meets certain other requirements set out in 40 CFR 51.308(e)(2).”

period, the EPA's BART determinations were finalized in the Original 2013 FIP and 2016 Revised FIP. Therefore, there is no requirement to re-evaluate BART controls for the taconite sources. However, under the 2016 Revised FIP, the NO<sub>x</sub> emission limits do not become enforceable until the EPA confirms or modifies the emission limits in accordance with procedures set forth in the 2016 Revised FIP. Therefore, in the current action, the EPA is modifying the BART emission limits in accordance with the BART determinations and procedures set forth in the Original 2013 FIP and 2016 Revised FIP. *See* response to Comment 1.

**9. Comment:** The Conservation Groups assert that nothing in the CAA or RHR supports exempting the taconite sources from BART analyses based on litigation and settlement negotiations. The Conservation Groups contend that it is inappropriate for the EPA to rely on settlement discussions between the EPA and the taconite facilities to avoid meeting the CAA and RHR requirements for these facilities. Sierra Club submitted comments on the proposed consent decree, to which the Conservation Groups assert that the EPA has not yet responded.

**Response:** The EPA disagrees that the Agency is relying on the settlement agreement to meet statutory obligations and disagrees that the Agency is exempting the sources from BART analyses. As explained in other responses above, the EPA's SO<sub>2</sub> BART analyses for Hibbing, Minorca, and Northshore were set forth in the proposed Original 2013 FIP and the EPA's NO<sub>x</sub> BART analyses for Tilden, Hibbing, UTAC, and Minorca and SO<sub>2</sub> BART analysis for Tilden were set forth in the proposed 2016 Revised FIP. The EPA's BART determinations were finalized in the Original 2013 FIP and 2016 Revised FIP. The EPA entered into a settlement agreement with Cliffs on September 12, 2024, which detailed the results of the EPA's emission limit calculations that were performed using CEMS data in accordance with the procedures set forth in the Original 2013 FIP and 2016 Revised FIP.<sup>13</sup> While BART-eligible sources may be reassessed and subject to additional control technologies in future implementation periods, States (or the EPA when issuing a FIP) are not obligated to reopen their BART determinations to

---

<sup>13</sup> Settlement Agreement between Cleveland-Cliffs, Inc., Cleveland-Cliffs Steel, LLC, and U.S. EPA, Sep. 12, 2024.

consider additional data or control technologies after the determination has been made. *See also* response to Comment 1.

Regarding Sierra Club's comments on the proposed settlement agreement, under CAA section 113(g) the EPA is not obligated to respond to comments on settlement agreements, only to consider such comments: "The Administrator or the Attorney General, as appropriate, shall promptly consider any such written comments and may withdraw or withhold his consent to the proposed order or agreement if the comments disclose facts or considerations which indicate that such consent is inappropriate, improper, inadequate, or inconsistent with the requirements of this chapter."<sup>14</sup> The EPA considered Sierra Club's comments and concluded it was appropriate to finalize the settlement.

**10. Comment:** The Conservation Groups assert that the EPA withholds emission data from the public, thwarting meaningful public participation. The Conservation Groups further assert that Federal law requires that hourly CEMS emissions data submitted by UTAC must be made available to the public because the data is necessary to determine the amount of emissions emitted by the source. Furthermore, the Conservation Groups assert that the EPA does not provide enough descriptive information about the "process information" that UTAC also claimed as CBI to determine whether it is entitled to confidential treatment. Therefore, the Conservation Groups assert that the EPA must also conduct a CBI determination of those claims and fully describe the Agency's analysis for the public because the Agency's disclosures are necessary for the public to meaningfully review and comment on the proposed emission limitations for the UTAC source.

**Response:** The EPA disagrees that that the Agency withheld UTAC emission data from the public. The EPA provided all hourly emission data submitted by UTAC covering the periods from December 12, 2018, to February 24, 2019, and from January 25, 2022, to March 26, 2023, including NO<sub>x</sub> emission data in lbs/MMBtu and NO<sub>x</sub> emissions in lbs/MMBtu over a 720-hour

---

<sup>14</sup> *See* 42 U.S.C. 7413(g).

average. The EPA also provided the Agency's calculation file that details the Agency's analysis of UTAC's emission data. These files are available in the docket for this action.<sup>15</sup> UTAC claimed as CBI the specific hourly fuel mix and the percent stoich. The data claimed as CBI are not necessary to "determine the amount of emissions emitted by the source" and the EPA is obligated to treat this information as confidential in accordance with the procedures set forth in 40 CFR part 2, subpart B.

**11. Comment:** The Conservation Groups assert that the EPA's rationale for the relaxation of the emission limits and failure to require additional measures by the taconite sources, failure to conduct new BART analyses, and reliance on the flawed and outdated prior BART analyses are not reasonably moored to the requirements of the CAA. Rather than reducing pollution, the Conservation Groups assert that the proposed changes will allow the taconite facilities to emit more haze-forming pollution in the future.

**Response:** The EPA disagrees that this action is inconsistent with the requirements of the CAA. As discussed in the response to Comment 8, BART is a one-time requirement of the first planning period, per the CAA. The EPA's BART analyses were set forth in the proposed Original 2013 FIP and proposed 2016 Revised FIP. The EPA's BART determinations were finalized in the Original 2013 FIP and 2016 Revised FIP. *See* response to Comment 1. The emission limits set forth in the 2024 Proposed Rule reflect the degree of reduction achievable utilizing the control technology identified in the Original 2013 FIP and the 2016 Revised FIP BART determinations and are being set in conformance with the processes set forth in both the Original 2013 FIP and 2016 Revised FIP.

**12. Comment:** The Conservation Groups assert that the 2024 Proposed Rule fails to include the details necessary for practical enforceability. Specifically, the Conservation Groups

---

<sup>15</sup> *See* Attachment to April, 11, 2023, email from McWilliams - *UTAC L1 L2 NOx CEMS data-filtering out values outside of engineering specifications.pdf*, Attachment to April 11, 2023, email from McWilliams - *UTAC L1 L2 NOx CEMS Raw Data 1-25-22 to 3-26-23.pdf*, Attachment to April, 11, 2023, email from McWilliams - *UTAC Line 1 co-fire NOx data 2-12-18 to 2-25-19.pdf*, Attachment to April, 11, 2023, email from McWilliams - *UTAC Line 2 co-fire NOx data 11-14-22 to 3-5-23.pdf*, and *United Taconite Emission Limit Calculations.xlsx*, available in the docket.

assert that the EPA's 2024 Proposed Rule fails to explain how the proposed revised regulations identified for inclusion in the FIP comply with the monitoring, recordkeeping, and reporting requirements of the CAA and provide adequate reporting for citizen enforcement.

**Response:** The EPA disagrees that the 2024 Proposed rule had insufficient detail to ensure enforceability. The regional haze regulations codified in the Minnesota SIP at 40 CFR 52.1235(c), (d), and (e) and the Michigan SIP at 40 CFR 52.1183(l), (m), and (n) contain applicable monitoring, recordkeeping, and reporting requirements, including semiannual compliance reports and quarterly excess emission reports, and require that affected facilities submit such data to the EPA. These data are publicly available through the Freedom of Information Act (FOIA) process.

**13. Comment:** The Conservation Groups assert that CAA section 110(a)(2)(F)(iii), 42 U.S.C. 7410(a)(2)(F)(iii), and 40 CFR 51.211(a) require FIPs to provide for periodic reporting “on the nature and amount of emissions” from stationary sources. The Conservation Groups further assert that the EPA's proposal and associated regulations do not explain how the EPA will make the reported compliance information available to the public and that the EPA's final FIP action must provide this information.

**Response:** The EPA agrees that the reported compliance information should be available to the public. The Air Emissions Reporting Rule (AERR) at 40 CFR part 52 subpart A requires States to inventory emission sources, including stationary sources, and report this information to the EPA. The EPA makes these data publicly accessible on the Agency's website at [www.epa.gov/air-emissions-inventories](http://www.epa.gov/air-emissions-inventories), which hosts the National Emissions Inventory and provides information on the AERR program. In addition, as stated in the response to Comment 12, the regional haze regulations codified in the Minnesota SIP at 40 CFR 52.1235(e) and the Michigan SIP at 40 CFR 52.1183(n) contain applicable reporting requirements, including semiannual compliance reports and quarterly excess emission reports, and require that affected facilities submit such data to the EPA. These data are publicly available through the FOIA

process.

**14. Comment:** The Conservation Groups assert that under the FIP, certain future compliance plans and alternative monitoring procedures would be developed outside of the EPA's FIP public notice and comment process and the public will not have an opportunity to review and comment via the FIP rulemaking process. The Conservation Groups further assert that the EPA must revise the Agency's proposed regulations to provide for public notice and comment on the plans and alternative monitoring procedures.

The Conservation Groups assert that several provisions in the EPA's proposed FIP regulations allow for the development of future plans and alternative approaches to compliance:

- Sampling and calculation methodology for determining the sulfur content of coal are determined via a plan, which is not part of the FIP (Tilden Grate Kiln Line 1 (40 CFR 52.1183(k)(3)).
- Data substitution and CEMS supplementation calculated via a site-specific monitoring plan, which is not part of the FIP (40 CFR 51.1183(l)(4)(xii)).
- Provisions that allow for the "owner or operator" to "submit to EPA for approval an alternative monitoring procedure request" (40 CFR 52.1235(b)(2)(vi)(D)).

**Response:** The Conservation Groups state that the EPA must provide for public notice and comment on "future compliance plans and alternative monitoring procedures." This appears to reference the site-specific monitoring procedures promulgated in the Original 2013 FIP, codified at 40 CFR 52.1183(n)(8) and 52.1235(e)(8). These provisions set forth the requirement that sources "submit for review and approval by the Regional Administrator a site-specific monitoring plan" and specify the minimum information to be included at 40 CFR 52.1183(n)(8)(i) through (x) and 52.1235(e)(8)(i) through (x). During the public comment period for the Original 2013 FIP, the EPA took comment on the procedures and provisions of the site-specific monitoring plans. In this action, the EPA is not revising the procedures set forth in the Original 2013 FIP for sources to submit to the EPA for review and approval site-specific

monitoring plans. This action clarifies when certain information required to be in the site-specific monitoring plans may be used to supplement CEMS data during periods of startup, shutdown, and malfunction (SSM) or to develop an alternative monitoring procedure under certain conditions. Therefore, comments on the procedures set forth in the Original 2013 FIP are outside the scope of this action.

**15. Comment:** The Conservation Groups assert that the proposed regulatory text omits monitoring requirements for Process Boilers #1 and #2 at Northshore. The Conservation Groups further assert that the EPA must require CEMS to be installed on these units and apply the same maintenance, reporting, and recordkeeping requirements to them as are applied to the other CEMS because those provisions are necessary to ensure the emission limits at the process boilers—which apply during periods of SSM—are enforceable.

**Response:** The EPA disagrees that regulatory text regarding monitoring requirements for Process Boiler #1 and #2 are necessary for this action. The provisions related to these boilers were promulgated in the Original 2013 FIP and are not being revised by this action, except to reflect the compliance date of October 10, 2021. The EPA solicited comment on the Original 2013 FIP and new comments on these provisions are outside the scope of this action.

**16. Comment:** The Conservation Groups assert that, contrary to the CAA’s requirement that emission limits apply at all times, the EPA’s proposed FIP regulations do not specify this requirement for all of the taconite sources. The Conservation Groups further assert that the only taconite source with such a provision is Northshore (40 CFR. 52.1235(b)(vi)). Therefore, the Conservation Groups assert that the EPA’s final regulations must specify that the emission limits apply at all times for all units, including SSM periods.

**Response:** The EPA disagrees with the Conservation Groups’ assertion that the FIP should be modified to specify that emission limits apply at all times. The FIP already clearly requires that the emission limits apply at all times and this action does not impact that provision. The Original 2013 FIP, codified at 40 CFR 52.1235(e)(7)(x)(A) and 40 CFR

52.1183(n)(7)(x)(A), clearly states “[f]or purposes of this section, an excess emission is defined as any 30-day or 720-hour rolling average period, *including periods of startup, shutdown, and malfunction*, [emphasis added], during which the 30-day or 720-hour (as appropriate) rolling average emissions of either regulated pollutant (SO<sub>2</sub> and NO<sub>x</sub>), as measured by a CEMS, exceeds the applicable emission standards in this section.”

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

The EPA is modifying the UPL equations used to establish NO<sub>x</sub> and SO<sub>2</sub> emission limits and finalizing NO<sub>x</sub> and/or SO<sub>2</sub> emission limits for the indurating furnaces at five taconite facilities in accordance with the procedure set forth in the Original 2013 FIP and 2016 Revised FIP. Specifically, the EPA is establishing the following NO<sub>x</sub> limits, with compliance to be determined on a rolling 30-day average: 3.0 lbs NO<sub>x</sub>/MMBtu for all fuels for Tilden Line 1; a crossline average limit of 1.5 lb NO<sub>x</sub>/MMBtu for Hibbing Lines 1, 2, and 3; a crossline average emission limit of 3.0 lbs NO<sub>x</sub>/MMBtu for all fuels for UTAC Lines 1 and 2; and 1.6 lbs NO<sub>x</sub>/MMBtu for Minorca’s indurating furnace. The EPA is establishing the following SO<sub>2</sub> limits, with compliance to be determined on a rolling 30-day average: 189 lbs SO<sub>2</sub>/hr for all fuels for Tilden Line 1; an aggregate emission limit of 247.8 lbs SO<sub>2</sub>/hr for Hibbing Lines 1, 2, and 3; 68.2 lbs SO<sub>2</sub>/hr for Minorca’s indurating furnace; and an aggregate limit of 17.0 lbs SO<sub>2</sub>/hr for Northshore Furnaces 11 and 12. The EPA is also revising reporting provisions to require reports to be submitted to the Agency electronically. The EPA is currently reconsidering the RHR and may make changes to this determination after the rulemaking, if appropriate.

### **IV. Statutory and Executive Order Reviews.**

*A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review 13563*

This action is exempt from review by the Office of Management and Budget (OMB) because it is a rule of particular applicability and will only apply to five taconite facilities - Tilden in Michigan and Hibbing, Minorca, Northshore, and UTAC in Minnesota.

*B. Executive Order 14192: Unleashing Prosperity Through Deregulation*

This action is not subject to Executive Order 14192 because actions that are rules of particular applicability are exempt from review under Executive Order 12866. This action will specifically regulate five taconite facilities -Tilden in Michigan and Hibbing, Minorca, Northshore, and UTAC in Minnesota.

*C. Paperwork Reduction Act (PRA)*

This rule does not impose an information collection burden under the provisions of the PRA.

*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 (5 U.S.C. 601 et seq.). This action will not impose any requirements on small entities. This action will establish emission limits for five taconite sources. None of these sources are owned by small entities and therefore are not small entities.

*E. Unfunded Mandates Reform Act (UMRA)*

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any State, local, or Tribal governments or the private sector.

*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 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 discuss this action in conference calls with the Michigan and Minnesota Tribes.

*H. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks*

This action is not subject to Executive Order 13045 because it is not 3(f)(1) significant as defined in Executive Order 12866.

*I. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use*

This action is not subject to Executive Order 13211 because it is not a significant regulatory action under Executive Order 12866.

*J. National Technology Transfer Advancement Act*

This rulemaking does not involve technical standards.

*K. Congressional Review Act*

This rule is exempt from the Congressional Review Act because it is a rule of particular applicability. This action will specifically regulate five taconite facilities -Tilden in Michigan and Hibbing, Minorca, Northshore, and UTAC in Minnesota.

*L. Judicial Review*

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by **[insert date 60 days from the date of publication in the *Federal Register*]**. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this rule for the purposes of judicial review or extend the time within which a petition for judicial review may be filed and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. See section 307(b)(2).

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

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen oxides, Regional haze, Reporting and recordkeeping requirements, and Sulfur oxides.

**Lee Zeldin,**  
*Administrator.*

For the reasons stated in the preamble, title 40 CFR part 52 is 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.

2. Section 52.1183 is amended by:

- a. Revising paragraphs (k)(1), (3), (4) and (5);
- b. Revising paragraphs (l)(3), (4)(v) and (xii);
- c. Revising paragraphs (n)(1) and (2) introductory text; and
- d. Removing and reserving paragraph (p).

The revisions read as follows:

**§ 52.1183 Visibility protection.**

\* \* \* \* \*

(k) Tilden Mining Company, or any subsequent owner/operator of the Tilden Mining Company facility in Ishpeming, Michigan, shall meet the following requirements:

(1) *NO<sub>x</sub> Emission Limits.* (i) An emission limit of 3.0 lbs NO<sub>x</sub>/MMBTU, based on a 30-day rolling average, shall apply to Tilden Grate Kiln Line 1 (EUKILN1) beginning **[insert date 30 days after date of publication in the *Federal Register*].**

(ii) Compliance with this emission limit shall be demonstrated with data collected by a continuous emissions monitoring system (CEMS) for NO<sub>x</sub>.

\* \* \* \* \*

(3) The owner or operator of the Tilden Grate Kiln Line 1 (EUKILN1) furnace shall meet an emission limit of 189.0 lbs SO<sub>2</sub>/hr, based on a 30-day rolling average, beginning on **[insert date 30 days after date of publication in the *Federal Register*].** Compliance with this emission limit shall be demonstrated with data collected by a continuous emissions monitoring system (CEMS) for SO<sub>2</sub>. Beginning November 12, 2016, any coal burned on Tilden Grate Kiln Line 1 shall have no more than 0.60 percent sulfur by weight based on a monthly block average. The

sampling and calculation methodology for determining the sulfur content of coal must be described in the monitoring plan required for this furnace.

(4) Emissions resulting from the combustion of fuel oil are not included in the calculation of the 30-day rolling average. However, if any fuel oil is burned after the first day that SO<sub>2</sub> CEMS are required to be operational, then the information specified in (k)(5) must be submitted, for each calendar year, to the Regional Administrator at *R5ARDReporting@epa.gov* no later than 30 days after the end of each calendar year so that a limit can be set.

(5) Records shall be kept for any day during which fuel oil is burned as fuel (either alone or blended with other fuels) in Grate Kiln Line 1. These records must include, at a minimum, the gallons of fuel oil burned per hour, the sulfur content of the fuel oil, and the SO<sub>2</sub> emissions in pounds per hour. If any fuel oil is burned after the first day that SO<sub>2</sub> CEMS are required to be operational, then the records must be submitted, for each calendar year, to the Regional Administrator at *R5ARDReporting@epa.gov* no later than 30 days after the end of each calendar year.

(l) \* \* \*

(3) The owner or operator shall install, certify, calibrate, maintain, and operate one or more continuous diluent monitor(s) (O<sub>2</sub> or CO<sub>2</sub>) and continuous stack gas flow rate monitor(s) on Tilden Grate Kiln Line 1 to allow conversion of the NO<sub>x</sub> and SO<sub>2</sub> concentrations to units of the standard (lbs/MMBTU and lbs/hr, respectively) unless a demonstration is made that a diluent monitor and/or continuous flow rate monitor are not needed for the owner or operator to demonstrate compliance with applicable emission limits in units of the standard.

(4) \* \* \*

(v) The owner or operator of each CEMS must furnish the Regional Administrator a written report of the results of each quarterly performance evaluation and a data accuracy assessment pursuant to 40 CFR part 60 appendix F within 60 days after the calendar quarter in which the performance evaluation was completed. These reports shall be submitted to the

Regional Administrator at *R5AirEnforcement@epa.gov*.

\* \* \* \* \*

(xii) Data substitution must not be used for purposes of determining compliance under this regulation. If CEMS data is measuring only a portion of the NO<sub>x</sub> or SO<sub>2</sub> emitted during startup, shutdown, or malfunction conditions, the CEMS data may be supplemented, but not modified, by the addition of calculated emission rates using procedures set forth in the site specific monitoring plan.

\* \* \* \* \*

(n) *Reporting requirements.* (1) Unless instructed otherwise, all requests, reports, submittals, notifications, and other communications required by this section shall be submitted to the Regional Administrator at *R5AirEnforcement@epa.gov*. References in this section to the Regional Administrator shall mean the EPA Regional Administrator for Region 5.

(2) The owner or operator of each BART affected unit identified in this section and CEMS required by this section must provide to the Regional Administrator the written notifications, reports, and plans identified at paragraphs (n)(2)(i) through (viii) of this section.

\* \* \* \* \*

(p) [Reserved]

3. Section 52.1235 is amended by:

- a. Revising paragraphs (b)(1)(ii), (iv), (v), (vi), (2)(ii), (v) and (vi);
- b. Revising paragraphs (c)(1), (2), (3), (4)(ii), (v), and (xii); and
- c. Revising paragraphs (e)(1) and (2) introductory text; and
- d. Revising paragraph (f).

The revisions read as follows:

**§ 52.1235 Regional haze.**

\* \* \* \* \*

(b) \* \* \*

(1) \* \* \*

(ii) *Hibbing Taconite Company* — (A) An aggregate emission limit of 1.5 lbs NO<sub>x</sub>/MMBtu, based on a 30-day rolling average, shall apply to the combined NO<sub>x</sub> emissions from the three indurating furnaces, Line 1 (EU020), Line 2 (EU021), and Line 3 (EU022), beginning on **[insert date 30 days after date of publication in the *Federal Register*]**. To determine the aggregate emission rate, the combined NO<sub>x</sub> emissions from Lines 1, 2, and 3 shall be divided by the total heat input to the three lines (in MMBtu) during every rolling 30-day period.

(B) Compliance with this emission limit shall be demonstrated with data collected by a continuous emissions monitoring system (CEMS) for NO<sub>x</sub>.

\* \* \* \* \*

(iv) *United Taconite* — (A) An aggregate emission limit of 3.0 lbs NO<sub>x</sub>/MMBtu, based on a 30-day rolling average, shall apply to the combined NO<sub>x</sub> emissions from the two indurating furnaces, Grate Kiln Line 1 (EU040) and Grate Kiln Line 2 (EU042), beginning on **[insert date 30 days after date of publication in the *Federal Register*]**. To determine the aggregate emission rate, the combined NO<sub>x</sub> emissions from Grate Kiln Line 1 and Grate Kiln Line 2 shall be divided by the total heat input to the two lines (in MMBtu) during every rolling 30-day period.

(B) Compliance with this emission limit shall be demonstrated with data collected by a continuous emissions monitoring system (CEMS) for NO<sub>x</sub>.

(v) *Minorca Mine* — (A) An emission limit of 1.6 lbs NO<sub>x</sub>/MMBtu, based on a 30-day rolling average, shall apply to the Minorca Mine indurating furnace (EU026). This emission limit will become enforceable on **[insert date 30 days after date of publication in the *Federal Register*]**.

(B) Compliance with this emission limit will be demonstrated with data collected by a continuous emissions monitoring system (CEMS) for NO<sub>x</sub>.

(vi) *Northshore Mining Company* — Silver Bay: An emission limit of 1.5 lbs NO<sub>x</sub>/MMBtu, based on a 30-day rolling average, shall apply to Furnace 11 (EU100/EU104) beginning October

10, 2018. An emission limit of 1.5 lbs NO<sub>x</sub>/MMBtu, based on a 30-day rolling average, shall apply to Furnace 12 (EU110/114) beginning October 11, 2019. However, for any 30, or more, consecutive days when only natural gas is used at either Northshore Mining Furnace 11 or Furnace 12, a limit of 1.2 lbs NO<sub>x</sub>/MMBtu, based on a 30-day rolling average, shall apply. An emission limit of 0.085 lbs NO<sub>x</sub>/MMBtu, based on a 30-day rolling average, shall apply to Process Boiler #1 (EU003) and Process Boiler #2 (EU004) beginning October 10, 2021. The 0.085 lbs NO<sub>x</sub>/MMBtu emission limit for each process boiler applies at all times a unit is operating, including periods of start-up, shut-down and malfunction.

(2) \* \* \*

(ii) *Hibbing Taconite Company*— (A) An aggregate emission limit of 247.8 lbs SO<sub>2</sub>/hour, based on a 30-day rolling average, shall apply to the combined SO<sub>2</sub> emissions from the three indurating furnaces, Line 1 (EU020), Line 2 (EU0021), and Line 3 (EU022), beginning on February 10, 2017. To determine the aggregate emission rate, the combined SO<sub>2</sub> emissions from Lines 1, 2, and 3 shall be divided by the total hours of operation of the three lines during every rolling 30-day period.

(B) Compliance with this emission limit shall be demonstrated with data collected by a continuous emissions monitoring system (CEMS) for SO<sub>2</sub>.

(C) Emissions resulting from the combustion of fuel oil are not included in the calculation of the 30-day rolling average. However, if any fuel oil is burned after the first day that SO<sub>2</sub> CEMS are required to be operational, then the information specified in (b)(2)(vii) must be submitted, for each calendar year, to the Regional Administrator at [R5ARDReporting@epa.gov](mailto:R5ARDReporting@epa.gov) no later than 30 days after the end of each calendar year so that a limit can be set.

\* \* \* \* \*

(v) *Minorca Mine*— (A) An emission limit of 68.2 lbs SO<sub>2</sub>/hr, based on a 30-day rolling average, shall apply to the indurating furnace (EU026) beginning **[insert date 30 days after date of publication in the *Federal Register*]**.

(B) Compliance with this emission limit shall be demonstrated with data collected by a continuous emissions monitoring system (CEMS) for SO<sub>2</sub>.

(C) Emissions resulting from the combustion of fuel oil are not included in the calculation of the 30-day rolling average. However, if any fuel oil is burned after the first day that SO<sub>2</sub> CEMS are required to be operational, then the information specified in (b)(2)(vii) must be submitted, for each calendar year, to the Regional Administrator at [R5ARDReporting@epa.gov](mailto:R5ARDReporting@epa.gov) no later than 30 days after the end of each calendar year so that a limit can be set.

(vi) *Northshore Mining Company - Silver Bay*— (A) An aggregate emission limit of 17.0 lbs SO<sub>2</sub>/hr, based on a 30-day rolling average, shall apply to Furnace 11 (EU100/EU104) and Furnace 12 (EU110/EU114) beginning [**insert date 30 days after date of publication in the *Federal Register***]. To determine the aggregate emission rate, the combined SO<sub>2</sub> emissions from Furnace 11 and Furnace 12 shall be divided by the total hours of operation of the two furnaces during every rolling 30-day period.

(B) Compliance with these emission limits shall be demonstrated with data collected by a continuous emissions monitoring system (CEMS) for SO<sub>2</sub>.

(C) Emissions resulting from the combustion of fuel oil are not included in the calculation of the 30-day rolling average. However, if any fuel oil is burned after the first day that SO<sub>2</sub> CEMS are required to be operational, then the information specified in (b)(2)(vii) must be submitted, for each calendar year, to the Regional Administrator at [R5ARDReporting@epa.gov](mailto:R5ARDReporting@epa.gov) no later than 30 days after the end of each calendar year so that a limit can be set.

(D) The owner or operator may submit to EPA for approval an alternative monitoring procedure request. The request shall include at least one year of CEMS data demonstrating consistent values at or below 5 lbs SO<sub>2</sub>/hr. The alternative monitoring procedure request shall not remove the obligation to maintain and operate a flow rate monitor in the stack. If approved, the owner or operator would not be required to operate the SO<sub>2</sub> CEMS and may demonstrate continuous compliance using an emission factor derived from the average of at least one year of

existing SO<sub>2</sub> data using the procedure set forth in the site specific monitoring plan, and verified by annual stack tests using EPA approved test methods, multiplied by the daily measured flow rate as recorded by the flow rate monitor and recorded as the daily lb/hr SO<sub>2</sub> emission rate.

\* \* \* \* \*

(c) *Testing and monitoring.* (1) The owner or operator of the respective facility shall install, certify, calibrate, maintain and operate continuous emissions monitoring systems (CEMS) for NO<sub>x</sub> on United States Steel Corporation, Keetac unit EU030; Hibbing Taconite Company units EU020, EU021, and EU022; United States Steel Corporation, Minntac units EU225, EU261, EU282, EU315, and EU334; United Taconite units EU040 and EU042; Minorca Mine unit EU026; and Northshore Mining Company-Silver Bay units Furnace 11 (EU100/EU104) and Furnace 12 (EU110/EU114). Compliance with the emission limits for NO<sub>x</sub> shall be determined using data from the CEMS.

(2) The owner or operator shall install, certify, calibrate, maintain, and operate CEMS for SO<sub>2</sub> on United States Steel Corporation, Keetac unit EU030; Hibbing Taconite Company units EU020, EU021, and EU022; United States Steel Corporation, Minntac units EU225, EU261, EU282, EU315, and EU334; United Taconite units EU040 and EU042; Minorca Mine unit EU026; and Northshore Mining Company-Silver Bay units Furnace 11 (EU100/EU104) and Furnace 12 (EU110/EU114).

(3) The owner or operator shall install, certify, calibrate, maintain, and operate one or more continuous diluent monitor(s) (O<sub>2</sub> or CO<sub>2</sub>) and continuous stack gas flow rate monitor(s) on the BART affected units to allow conversion of the NO<sub>x</sub> and SO<sub>2</sub> concentrations to units of the standard (lbs/MMBTU and lbs/hr, respectively) unless a demonstration is made that a diluent monitor and/or continuous flow rate monitor are not needed for the owner or operator to demonstrate compliance with applicable emission limits in units of the standards.

(4) \* \* \*

(ii) CEMS must be installed and operational such that the operational status of the CEMS

identified in paragraphs (c)(1) and (2) of this section shall be verified by, as a minimum, completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the devices.

\* \* \* \* \*

(v) The owner or operator of each CEMS must furnish the Regional Administrator a written report of the results of each quarterly performance evaluation and a data accuracy assessment pursuant to 40 CFR part 60 appendix F within 60 days after the calendar quarter in which the performance evaluation was completed. These reports shall be submitted to the Regional Administrator at *R5AirEnforcement@epa.gov*.

\* \* \* \* \*

(xii) Data substitution must not be used for purposes of determining compliance under this section. If CEMS data is measuring only a portion of the NO<sub>x</sub> or SO<sub>2</sub> emitted during startup, shutdown, or malfunction conditions, the CEMS data may be supplemented, but not modified, by the addition of calculated emission rates using procedures set forth in the site specific monitoring plan.

\* \* \* \* \*

(e) *Reporting Requirements.* (1) Unless instructed otherwise, all requests, reports, submittals, notifications, and other communications required by this section shall be submitted to the Regional Administrator at *R5AirEnforcement@epa.gov*. References in this section to the Regional Administrator shall mean the EPA Regional Administrator for Region 5.

(2) The owner or operator of each BART affected unit identified in this section and CEMS required by this section must provide to the Regional Administrator the written notifications, reports and plans identified at paragraphs (e)(2)(i) through (viii) of this section.

\* \* \* \* \*

(f) *Equations for establishing the upper predictive limit*—(1) Equation for normal distribution and statistically independent data.

$$UPL = \bar{x} + t_{[(n-1),(0.99)]} \sqrt{s^2 \left( \frac{1}{n} + \frac{1}{m} \right)}$$

Where:

$\bar{x}$  = average or mean of hourly test run data;

$t_{[(n-1),(0.99)]}$  = t score, the one-tailed t value of the Student's t distribution for a specific degree of freedom (n-1) and a confidence level (0.99, to reflect the 99<sup>th</sup> percentile)

$s^2$  = variance of the hourly data set;

$n$  = number of values (e.g. 5,760 if 8 months of valid lbs NO<sub>x</sub>/MMBTU hourly values)

$m$  = number of values used to calculate the test average (m = 720 as per averaging time)

(i) To determine if statistically independent, use the Rank von Neumann Test on p. 137 of data Quality Assessment: Statistical Methods for Practitioners EPA QA/G-9S.

(ii) Alternative to Rank von Neumann test to determine if data are dependent, data are dependent if t test value is greater than t critical value, where:

$$t \text{ test} = \frac{\rho}{\sqrt{\frac{1 - \rho^2}{n - 2}}}$$

$\rho$  = correlation between data points

$t \text{ critical} = t_{[(n-2),(0.95)]}$  = t score, the two-tailed t value of the Student's tDistribution for a specific degree of freedom (n-2) and a confidence level (0.95)

(iii) The Anderson-Darling normality test is used to establish whether the data are normally distributed. That is, a distribution is considered to be normally distributed when  $p > 0.05$ .

(2) Non-parametric equation for data not normally distributed and normally distributed but not statistically independent.

$$m = (n+1) * \alpha$$

$m$  = the rank of the ordered data point, when data are sorted smallest to largest. The data points are 720-hour averages for establishing NO<sub>x</sub> limits.

$n$  = number of data points (e.g., 5040 720-hourly averages for eight months of valid NO<sub>x</sub>

lbs/MMBTU values)

$\alpha = 0.99$ , to reflect the 99<sup>th</sup> percentile

If  $m$  is a whole number, then the limit,  $UPL$ , shall be computed as:

$$UPL = X_m$$

Where:

$X_m$  = value of the  $m^{th}$  data point in terms of lbs SO<sub>2</sub>/hr or lbs NO<sub>x</sub>/MMBtu, when the data are sorted smallest to largest.

If  $m$  is not a whole number, the limit shall be computed by linear interpolation according to the following equation.

$$UPL = x_m = x_{m_i m_d} = x_{m_i} + 0.m_d(x_{m_{(i+1)}} - x_{m_i})$$

Where:

$m_i$  = the integer portion of  $m$ , i.e.,  $m$  truncated at zero decimal places, and

$m_d$  = the decimal portion of  $m$

[FR Doc. 2025-24207 Filed: 12/31/2025 8:45 am; Publication Date: 1/2/2026]