40 CFR Part 52

[EPA-R05-OAR-2024-0216; FRL-12599-01-R5]

Air Plan Approval; Minnesota; Revision to Taconite Federal Implementation Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to modify nitrogen oxide (NO_X) emission limits for the indurating furnace at United States Steel's (U.S. Steel's) Keetac taconite facility in Keewatin, Minnesota (Keetac), to satisfy the requirement for best available retrofit technology (BART) at taconite facilities. EPA is proposing this action pursuant to sections 110 and 169A of the Clean Air Act (CAA).

DATES: Comments must be received on or before **[INSERT DATE 47 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].**

Virtual Public Hearing. EPA is offering the opportunity for a virtual public hearing to provide interested parties the opportunity to present data, views, or arguments concerning the proposal. If anyone contacts us requesting to present at a virtual public hearing on or before **[INSERT DATE 12 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*],** EPA will hold a virtual public hearing on **[INSERT DATE 17 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].** See **SUPPLEMENTARY INFORMATION** for information on registering and requesting to present at a public hearing.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R05-OAR-2024-0216 at *https://www.regulations.gov*, or via email to *Arra.Sarah@epa.gov*. For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from the docket. EPA may publish any comment received to its public docket. Do not submit to EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI), Proprietary Business Information (PBI), 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. 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, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI, PBI, or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.*

FOR FURTHER INFORMATION CONTACT: Gina Harrison, Environmental Scientist, Air and Radiation Division (AR18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois, 60604, (312) 353-6956, *harrison.gina@epa.gov*. The EPA

Region 5 office is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays.

SUPPLEMENTARY INFORMATION:

I. Participation in Virtual Public Hearing.

To request to present at a virtual public hearing, or to pre-register to attend the hearing, if one is held, please use the online registration form available at *https://www.epa.gov/mn/revision-taconite-regional-haze-federal-implementation-plan-mi-and-mn* or contact Mayesha Choudhury at (312) 886-5909 or by email at *choudhury.mayesha@epa.gov.* EPA is asking all hearing attendees to register, even those who do not intend to present. The last day to request to present at the hearing will be **[INSERT DATE 12 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. If no request to present at the virtual public hearing is received by 11:59 p.m. Central Daylight Time (CDT) **[INSERT DATE 12 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**, EPA will not hold the hearing. If a virtual hearing is held, EPA will accept registration until the start of the hearing.

EPA will announce the status of the hearing on **[INSERT DATE 13 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]** on the public hearing website at *https://www.epa.gov/mn/revision-taconite-regional-haze-federal-implementation-plan-mi-and-mn.* Alternatively, interested parties may contact Mayesha Choudhury at (312) 886-5909 to find out if the hearing is being held.

If a request to present at the virtual public hearing is received by **[INSERT DATE 12 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**, EPA will hold a virtual public hearing on **[INSERT DATE 17 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. EPA will post a general agenda for the hearing on **[INSERT DATE 14 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. The agenda will be available at *https://www.epa.gov/mn/revision-taconite-regional-haze-federal-implementation-plan-mi-and-mn* and will list pre-registered presenters in approximate order. The hearing will convene at 9:00 a.m. CDT and will conclude at 1:00 p.m. CDT, or 15 minutes after the last pre-registered presenter in attendance has presented if there are no additional presenters. EPA will announce further details on the virtual public hearing website at *https://www.epa.gov/mn/revision-taconite-regional-haze-federal-implementation-plan-mi-and-mn*.

If a request to present at the virtual public hearing is timely received, EPA will make every effort to follow the schedule as closely as possible on the day of the hearing; however, please plan for the hearing to run either ahead of schedule or behind schedule. Each commenter will have 5 minutes to provide oral testimony. EPA encourages commenters to provide EPA with a written copy of their oral testimony electronically by including it in the registration form or emailing it to *choudhury.mayesha@epa.gov*. EPA may ask clarifying questions during the oral presentations but will not respond to the

presentations at that time. Written statements and supporting information submitted during the comment period will be considered with the same weight as oral comments and supporting information presented at the virtual public hearing.

Please note that any updates made to any aspect of the hearing will be posted online at *https://www.epa.gov/mn/revision-taconite-regional-haze-federal-implementation-plan-mi-and-mn*. Please monitor our website or contact Mayesha Choudhury at (312) 886-5909 or *choudhury.mayesha@epa.gov* to determine if there are any updates. EPA does not intend to publish a document in the *Federal Register* announcing updates concerning the virtual public hearing.

If you require the services of a translator or a special accommodation such as audio description/closed captioning, please pre-register for the hearing with Mayesha Choudhury at (312) 886-5909 or *choudhury.mayesha@epa.gov* and describe your needs by **[INSERT DATE 9 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**. EPA may not be able to arrange accommodations without advance notice.

II. Background.

A. Requirements of the CAA and EPA's Regional Haze Rule

In the CAA Amendments of 1977, Congress created a program for protecting visibility in the nation's national parks and wilderness areas. Section 169A 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[1] which impairment results from manmade air pollution." Congress added section 169B to the CAA in 1990 to address regional haze issues. EPA promulgated a rule to address regional haze on July 1, 1999 (64 FR 35714), codified at 40 CFR part 51, subpart P – Protection of Visibility (herein after referred to as the "Regional Haze Rule"). The Regional Haze Rule codified and clarified the BART provisions in the CAA at 40 CFR 51.308(e) and revised the existing visibility regulations to add provisions addressing regional haze impairment and establishing a comprehensive visibility protection program for Class I areas.

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

[1] Areas designated as mandatory Class I Federal areas consist of national parks exceeding 6,000 acres, wilderness areas and national memorial parks exceeding 5,000 acres, and all international parks that were in existence on August 7, 1977. 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 action, we mean a "mandatory Class I Federal area."

visibility goal, including a requirement that certain categories of existing major stationary sources [2] built between 1962 and 1977 procure, install, and operate BART[3] as determined by EPA.

Under the Regional Haze Rule, states (or in the case of a FIP, 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, (70 FR 39104), EPA published the Guidelines for BART Determinations Under the Regional Haze Rule at appendix Y to 40 CFR part 51 (hereinafter referred to as the "BART Guidelines"), to assist states and 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 process of establishing BART emission limitations follows three steps. First, states, or EPA if developing a FIP, must identify and list "BART-eligible sources."[4] Once the state or EPA has identified the BART-eligible sources, the second step is to identify those sources that may "emit any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility" in a Class I area. (Under the

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[2] The set of "major stationary sources" potentially subject to BART is listed in CAA section 169A(g)(7) and includes "taconite ore processing facilities."
[3] 40 CFR 51.301 "Best Available Retrofit Technology (BART)."
[4] "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.

Regional Haze Rule, a source that fits this description is "subject to BART."). Third, for each source subject to BART, the state or EPA must identify the level of control representing BART after considering the five factors set forth in CAA section 169A(g). The BART Guidelines provide a process for making BART determinations that states can use in implementing the BART requirements on a source-by-source basis. *See* 40 CFR part 51, appendix Y, at IV.D.[5]

States, or EPA if developing a FIP, must address all visibility-impairing pollutants emitted by a source in the BART determination process. The most significant visibility impairing pollutants are sulfur dioxide (SO_2), NO_X, and particulate matter (PM).

A State Implementation Plan (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 EPA has made a BART determination, the BART controls must be installed and operated as expeditiously as practicable, but no later than five years after the date of the final SIP or FIP. *See* CAA section 169A(g)(4) and 40 CFR 51.308(e)(1)(iv). In addition to what is required by the Regional Haze Rule, general SIP requirements mandate that the SIP or FIP include all regulatory requirements related to monitoring, recordkeeping,

[5] 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).

and reporting for the BART controls on the source. *See* CAA section 110(a).

B. BART FIP and Regulatory History for the Keetac Taconite Facility

On February 6, 2013 (78 FR 8706), EPA promulgated a FIP that included NO_X BART limits for indurating furnaces at seven taconite facilities subject to BART in Minnesota and Michigan ("Original 2013 FIP Rule"). The Original 2013 FIP Rule included NO_X BART limits for indurating furnaces at two U.S. Steel taconite facilities located in Minnesota—Keetac and Minntac. EPA took this action because Minnesota and Michigan had failed to meet a statutory deadline to submit their regional haze SIPs for the first planning period by December 17, 2007, and subsequently failed to require BART at the taconite facilities. The Original 2013 FIP Rule, among other requirements, established NO_X BART emission limits of 1.2 pounds (lbs) of NO_X per million British Thermal Unit (MMBtu) when burning natural gas and 1.5 lbs NO_X/MMBtu when using any fuel other than exclusively natural gas for Keetac's indurating furnace (along with indurating furnaces at six other taconite facilities in Michigan and Minnesota). These emission limits were based upon the performance of high stoichiometric (high-stoich) low-NO_X burners (LNBs) installed on taconite furnaces at Minntac.

In a related action, on September 30, 2013 (78 FR 59825), EPA finalized partial disapprovals of Minnesota and Michigan's regional haze SIPs for the first planning period for failing to

require BART for the indurating furnaces at taconite facilities ("SIP Disapprovals"). Among other things, EPA found that Minnesota and Michigan had erred by determining that an undefined set of "good combustion practices" represented NO_X BART for Keetac and six other taconite facilities when U.S. Steel had successfully installed LNBs on Lines 6 and 7 at Minntac.

Subsequently, U.S. Steel filed a petition for review of the SIP Disapprovals in the U.S. Court of Appeals for the Eighth Circuit ("Eighth Circuit") and submitted to EPA a petition for reconsideration of the SIP Disapprovals. In its petitions for review and reconsideration of the SIP Disapprovals, U.S. Steel simultaneously sought review and reconsideration of the Original 2013 FIP Rule.

On April 12, 2016 (81 FR 21672), EPA promulgated a revised FIP rule, which revised BART emission limits for certain taconite facilities owned by companies other than U.S. Steel ("2016 Revised FIP Rule"). Those companies, along with U.S. Steel, each filed a petition for review in the Eighth Circuit challenging the 2016 Revised FIP Rule. U.S. Steel also submitted to EPA a petition for reconsideration of the 2016 Revised FIP Rule.

On December 4, 2017 (82 FR 57125), EPA denied U.S. Steel's petitions for reconsideration of the Original 2013 FIP Rule, the SIP Disapprovals, and the 2016 Revised FIP Rule ("Denial of Reconsideration"). U.S. Steel filed a petition for review in the Eighth Circuit challenging EPA's Denial of Reconsideration.

U.S. Steel's challenge of the Denial of Reconsideration has been in abeyance while the parties have been working toward resolution.

In November 2019, EPA executed a Settlement Agreement with U.S. Steel pertaining to NO_X BART requirements at Minntac.[6] EPA subsequently proposed and finalized a FIP revision addressing NO_X BART requirements for Minntac.[7] Most recently, in September 2024, EPA executed a Settlement Agreement with U.S. Steel pertaining to NO_X BART requirements at Keetac.[8]

III. Basis for NO_X Limits.

The Original 2013 FIP Rule limits were set based upon the performance of high-stoich LNBs on indurating furnaces at Minntac. Between its two taconite facilities (Minntac and Keetac), U.S. Steel owns and operates six grate-kiln taconite furnaces: five indurating furnaces at Minntac, and one large indurating furnace at Keetac. While all six furnaces are of generally similar design, they each differ in size, gas flow, combustion air design, production throughput, fuels used, type of taconite pellets produced, and heat characteristics in the furnace, among other differences.[9] Keetac's pellet production is double that of Minntac's, which affects the magnitude of fuel

[6] *See* 84 FR 47945 (September 11, 2019) (Minntac proposed Settlement Agreement).
[7] *See* 85 FR 6125 (February 4, 2020) (Minntac proposed FIP revision); 86 FR 12095 (March 2, 2021) (Minntac final rule revising FIP).
[8] *See* 89 FR 30357 (April 23, 2024) (Keetac proposed Settlement Agreement).
[9] *See* 2014-7-18 U. S. Steel's Response to EPA's questions; 2017-2-15 USS response to EPAs concerns re Keetac Low NO_X burner costs analysis; and 2020-8-14 August 7 2020 Call follow-up answers from US Steel, in docket.

input, number and design of combustion fans required, and burner system components needed to successfully operate a burner.[10]

Between 2009 and 2019, U.S. Steel contracted a variety of manufacturers and engineering firms to evaluate different NO_X reduction technologies that could meet the requirements of the Original 2013 FIP Rule at its Minntac and Keetac facilities, which both operate grate-kiln indurating furnaces. Early computational fluid dynamics modeling performed by these contractors showed that a high-stoich low-NO_X burner system would be a feasible option at Minntac. This testing showed that low-NO_X main burner systems, when used in conjunction with other modifications, could achieve a significant decrease in NO_X emissions at those furnaces.

U.S. Steel also conducted NO_X reduction demonstrations with a selective non-catalytic reduction (SNCR) system at Minntac. The results of this testing at Minntac showed that SNCR could produce, at best case, 8-10% NO_X reduction from baseline NO_X emission levels at Minntac, and also in some cases a net increase in NO_X emissions with urea injected at the entrance to the preheater.[11] In 2011, U.S. Steel reported the successful pilot testing of a low-NO_X main burner system on Line 7 at Minntac.[12] Based on this testing at Minntac, U.S. Steel identified LNBs as the most effective method of reducing NO_X emissions from the indurating process and evaluated the

[10] *See* 2014-7-18 U.S. Steel's Response to EPA's questions, in docket.
[11] *See* 2009-10-26 Nalco Mobotec US Steel Minntac Line 7 Final Report EPA-R05-OAR-2010-0037-0037_attachment_42, in docket.
[12] *See* 2011-05-13 USS Minntac Final test results Line 7 burner, in docket.

feasibility of installing LNBs at Keetac. However, the emission and process data generated through subsequent modeling indicated that this specific LNB technology developed for Minntac would not consistently achieve the same results on all taconite indurating furnaces while operating under various fuel use and production scenarios while maintaining pellet quality.[13] Keetac's pellet production is double that of Minntac's, which affects the magnitude of the fuel input, the number and design of combustion fans required, and the burner system components needed to successfully operate a burner. Subsequent modeling and engineering studies determined that a new low-NO_X main burner at Keetac would require additional natural gas and, as a result, would need double the amount of air to maintain an appropriate combustion efficiency.[14] These additional requirements were deemed infeasible at Keetac due to several technical factors, including the need to maintain appropriate temperature profiles to ensure pellet quality, space and design constraints, and significant safety concerns.

In 2017, EPA asked U.S. Steel to evaluate additional technology options for Keetac, including evaluating application of water injection to the burner system, providing temperature data for further evaluation of SNCR, further engaging with burner manufacturers to design a low-NO_X main burner, and

[13] *See* 2012-09-14 Metso Cliffs Tilden modeling report; 2014-07-20 Cliffs UTAC FCT phase 3 modeling report;2014-08-07 Metso UTAC LNB Grate Kiln L2 study; and 2015-01-13 Metso Cliffs Tilden I Phase III COEN LNB modeling report, in docket.
[14] *See* 2016-2-24 Barr Report with Appendices; 2016-5-13 FCT Report (Redacted); and 2018-8-08 Keetac Line II LNB technical analysis, in docket.

investigating the potential addition of preheat burners. A subsequent study of water injection at Keetac indicated that water injection would result in a significant reduction in pellet production along with adverse effects to pellet quality.[15] U.S. Steel also collected process data to further evaluate the feasibility of SNCR at Keetac. Based on process temperature measurements, the downdraft drying sections are too cold or below the temperature window for SNCR injection, while the preheat section is too hot and above the temperature window. In addition, due to physical space limitations and flue gas velocity, adequate residence time is not available for the reaction to take place. Consequently, the facility-specific conditions of the operating line at Keetac do not allow for a suitable location to inject urea for SNCR.[16]

U.S. Steel provided process and emission data and studies that set forth its concerns regarding potentially serious impacts from high-stoich LNB operation on the overall operation of the furnace, such as the heat balance of the furnace, the fuel used, pellet quality, airflow, safety, and other factors. U.S. Steel provided another engineering report containing a detailed analysis of how Keetac's process and pellet quality would be affected by changes to the burner operating parameters required to incorporate a high-stoich LNB system.[17] The studies analyzed the effects of low and mid-stoich LNB systems on the

[15] *See* 2019-2-08 Metso Keetac Water Injection Analysis study, in docket.
[16] *See* 2017-4-13 USS Keetac Grate Diagram and Supporting Information, in docket.
[17] Engineering report by Metso dated August 8, 2018 "Technical Analysis for applying LNB technology to Keetac Line II Grate Kiln (GK) system."

Keetac furnace by using simulation modeling that compared Keetac's normal operating conditions with simulations of furnace operations while using LNBs with a higher stoichiometric rate, showing that a low-stoich LNB system may be a viable option to reduce NO_X emissions from the Keetac furnace, with the potential for additional reductions from preheat burners.

Following evaluation of these engineering studies and data, EPA concluded that while the specific LNB design implemented at Minntac would not be appropriate for Keetac, LNB continues to be the appropriate selection for BART at Keetac. Specifically, installation of a low-NO_X main burner combined with low-NO_X preheat burners is expected to yield a 40-45% NO_X reduction when compared to baseline emissions from a standard burner.[18] Modeling of the Keetac indurating furnace with a low-NO_X main burner in conjunction with low-NO_X preheat burners indicated that a limit of 3.4 lbs NO_X/MMBtu represents BART for Keetac when firing exclusively natural gas.[19] Modeling of a low-NO_X main burner also indicated that a limit of 2.0 lbs NO_X/MMBtu represents BART during production cycles when cofiring with coal.[20] Modeling of mixed fuel production scenarios only reflects reductions based on the operation of the main burner

[18] Modeling used baseline emission values of 6.0-6.2 lbs NO_X/MMBtu and predicted a range of 40-45% reduction in NO_x emissions while utilizing exclusively natural gas when operating both a main burner and preheat burners. *See* 2019-2-27 Fives Main Burner Report (Redacted) and 2019-6-28 Fives Preheat Burner Report (Redacted), in docket.

[19] *See* 2019-6-28 Fives Preheat Burner Report (Redacted).

[20] *See* 2019-2-27 Fives Main Burner Report (Redacted).

since data indicate that reductions from preheat burners in these scenarios are limited.[21]

Based on this most recent modeling data, EPA is proposing to replace the existing NO_X BART emission limits applicable to Keetac with the following NO_X BART emission limits: (1) 3.4 lbs NO_X/MMBtu on a 720-hour rolling average when firing exclusively natural gas, which will become enforceable beginning three years after promulgation of a final rule, and (2) a NO_X BART limit of 2.0 lbs NO_X/MMBtu on a 720-hour rolling average when burning any fuel or combination of fuels other than exclusively natural gas, which will become enforceable five years after promulgation of a final rule, with the option for the owner or operator to seek an adjustment up to 2.5 lbs NO_X/MMBtu as discussed below. These values are based on modeling the use of both low-NO_X preheat burners and a low-NO_X main burner when firing exclusively natural gas and the use of a low-NO_X main burner when utilizing mixed fuels.

Due to the facility not utilizing mixed fuels after 2013, the modeling could not be validated for cofiring scenarios. Therefore, EPA is proposing to allow the owner or operator of Keetac, within a period of 52 months from the effective date of the final rule, the option to seek an adjustment of the NO_X BART cofiring emission limit based on collection of Continuous Emission Monitoring System (CEMS) data after installation of the

[21] *See* 2019-8-26 USS proposed solid fuel limit justification email and 2020-6-26 USS Email re solid fuels, in docket.

NO_X-reduction technology.[22] EPA is proposing that, upon receipt of complete emissions data from the owner or operator of Keetac as described in paragraph (b)(1)(i)(C)(1) of the proposed regulatory text, EPA will evaluate whether the data support adjusting the NO_X BART emission limit while burning any fuel or combination of fuels other than exclusively natural gas using the applicable equation set forth in 40 CFR 52.1235(f). If the results of the equation support adjustment of the NO_X BART emission limit, EPA shall initiate a rulemaking to adjust the emission limit. If revised, the NO_X BART emission limit when burning any fuel or combination of fuels other than exclusively natural gas may be no greater than 2.5 lbs NO_X/MMBtu, based on a 720-hour rolling average.

EPA's visibility impact analysis in the 2013 FIP was based on the assumption of a 70% reduction in NO_X emissions when firing natural gas. EPA now anticipates a 40-45% reduction in NO_X emissions when firing natural gas as a result of the control technologies and associated emission limits proposed in this rulemaking.[23] EPA expects the Keetac LNB design to achieve substantial visibility improvements, although slightly less than

[22] Per the Regional Haze rule, each source subject to BART is required to install and operate BART within 5 years—60 months—of plan approval. To allow EPA sufficient time to review a cofiring adjustment request and take action on that request within the 60-month timeframe, EPA must receive the initial request within 52 months of this final rule. EPA is allowing two additional months for data completion and sufficiency review, for a final request completion deadline of 54 months. If EPA does not receive a complete cofiring adjustment request by 54 months after the final rule, then the 2.0 lbs/MMBtu limit shall remain in place and applicable.

[23] Modeling used baseline emission values of 6.0-6.2 lbs NO_X/MMBtu and predicted a range of 40-45% reduction in NO_X emissions while utilizing exclusively natural gas when operating both a main burner and preheat burners. *See* 2019-2-27 Fives Main Burner Report (Redacted) and 2019-6-28 Fives Preheat Burner Report (Redacted), in docket.

what was projected to be achieved in the Original 2013 FIP Rule, in an amount roughly corresponding to the decrease in emission reductions.

IV. CAA Section 110(l)

Under CAA section 110(l), EPA cannot approve a plan revision "if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter." Based on the following analysis, we find that EPA's approval of this revision is consistent with CAA section 110(l) because it will not interfere with any applicable requirement concerning attainment, reasonable further progress, or any other applicable requirements of the CAA.

On June 12, 2012 (77 FR 34801), EPA approved Minnesota's regional haze plan for the first planning period as satisfying the applicable requirements in 40 CFR 51.308, except for BART emission limits for the taconite facilities. As previously discussed, EPA promulgated the Original 2013 FIP Rule to address the BART requirement for taconite facilities. The BART limits set forth in the Original 2013 FIP Rule were based on a LNB designed for Minntac. For reasons discussed above, U.S. Steel was unable to implement this LNB design at Keetac. Years of engineering studies and analysis identified an available LNB design solution for Keetac that will achieve NO_X reductions at the Keetac furnace. Since this analysis concluded Keetac could

not meet the limits set forth in the Original 2013 FIP Rule, EPA is setting higher proposed BART limits that reflect the emission reductions achievable using the Keetac LNB design solution. EPA is proposing that these limits represent BART and therefore the BART requirements of the CAA are satisfied.

Minnesota's 2012 long-term strategy for making reasonable progress towards the national visibility goal was among the regional haze plan elements approved by EPA. Minnesota's 2012 long-term strategy did not rely on the achievement of any particular degree of emission control from the taconite facilities; therefore, the revised NO_X BART emission limits for Keetac represent greater control than was assumed in Minnesota's approved SIP and do not interfere with the reasonable progress goals required by 40 CFR 51.308(d)(1), as set forth in Minnesota's first planning period SIP.

With respect to requirements concerning attainment of the National Ambient Air Quality Standards (NAAQS) and reasonable further progress, all areas in Minnesota are designated as attainment for all NAAQS that are potentially impacted by NO_X emissions.[24] Outside the state, the nearest ozone, particulate matter, or nitrogen dioxide nonattainment areas are the areas designated as nonattainment for the 2015 ozone NAAQS located along the western shore of Lake Michigan. The nearest of these ozone nonattainment areas along the western Lake Michigan shoreline, Sheboygan County, Wisconsin, is over 350 miles from

[24] The only nonattainment area in Minnesota is the Dakota County lead nonattainment area in Eagan, MN which is not impacted by NO_X emissions.

Keewatin, Minnesota. At the time these areas were designated as nonattainment for the 2015 ozone NAAQS, EPA evaluated HYSPLIT (Hybrid Single-Particle Lagrangian Integrated Trajectory) trajectories to identify areas potentially contributing to monitored violations of the NAAQS. No areas designated as nonattainment for the 2015 ozone NAAQS showed trajectories indicating that emissions from the area near Keewatin, Minnesota, had the potential to contribute to any of the monitored violations of the ozone NAAQS.

Therefore, based on the information presented above, we find that EPA's approval of these revisions would be consistent with CAA section 110(l). The proposed FIP revision complies with applicable regional haze requirements and general implementation plan requirements and does not interfere with any regional haze program requirements, attainment and reasonable further progress, or any other requirement of the CAA.

V. Proposed Action

EPA is proposing to modify NO_X BART emission limits for the indurating furnace at Keetac. Specifically, EPA is proposing to approve the following NO_X BART emission limits for the Keetac Grate Kiln indurating furnace, with compliance to be determined on a rolling 720-hour average: (1) 3.4 lbs NO_X/MMBtu when firing exclusively natural gas, which will become enforceable beginning three years after promulgation of a final rule, and (2) 2.0 lbs NO_X/MMBtu when firing any fuel or combination of fuels other than exclusively natural gas, which will become enforceable five

years after promulgation of a final rule, unless before that date, EPA promulgates a modified limit in accordance with the following procedure. EPA is also proposing to allow Keetac, within a period of 52 months from the effective date of the final rule, the option to seek a potential adjustment of the cofiring emission limit, not to exceed 2.5 lbs NO_X/MMBtu as a 720-hour rolling average, based on collection of CEMS data after installation of the NO_X reduction technology.

VI. Statutory and Executive Order Reviews

Additional information about these statutes and executive orders can be found at https://www.epa.gov/laws-regulations/laws-and-executive-orders.

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), as it is not a rule of general applicability. This action, if finalized, will specifically regulate the Keetac taconite facility in Minnesota.

B. Executive Order 14192: Unleashing Prosperity Through Deregulation

Executive Order 14192 does not apply because actions that are rules of particular applicability are exempt from review under Executive Order 12866. This action, if finalized, will specifically regulate the Keetac taconite facility in Minnesota.

C. Paperwork Reduction Act

This proposed action does not impose an information collection burden under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* Under the Paperwork Reduction Act, a "collection of information" is defined as a requirement for "answers to . . . identical reporting or recordkeeping requirements imposed on ten or more persons . . . ." 44 U.S.C. 3502(3)(A). Because the FIP applies to one taconite facility in Minnesota, the Paperwork Reduction Act does not apply. *See* 5 CFR 1320(c).

D. Regulatory Flexibility Act (RFA)

I certify that this proposed action will not have a significant economic impact on a substantial number of small entities under the RFA. This proposed action will not impose any requirements on small entities. This action, if finalized, will add additional controls to one taconite source. This source, the Keetac taconite facility, is not owned by small entities, and therefore is not a small entity.

E. Unfunded Mandates Reform Act (UMRA)

This proposed 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 proposed action imposes no enforceable duty on any state, local or Tribal governments or the private sector.

F. Executive Order 13132: Federalism

This proposed 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 proposed action 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 action. Consistent with the EPA Policy on Consultation and Coordination with Indian Tribes, EPA consulted with Tribal officials during the development of this action. On April 25, 2024, we met with Tribal leaders and presented an overview of the upcoming Keetac action. We encouraged the Tribes to contact us with any questions. Since that meeting we have provided updates on several monthly Tribal calls.

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

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866, and because EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. To the extent this action, if finalized, will limit emissions of NO_X emissions, the rule will have a beneficial effect on children's health by reducing air pollution.

I. 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.

J. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.

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.

Lee Zeldin,
Administrator.

For the reasons stated in the preamble, EPA proposes to amend 40 CFR part 52 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.*

3. Section 52.1235 is proposed to be amended by revising paragraph (b)(1)(i) to read as follows:

§52.1235 Regional haze.

(a) [Reserved]

(b) * * *

(1) NO_X emission limits.

(i) *United States Steel Corporation, Keetac.*

(A) *Emission limitations.*

(1) *Natural gas limit.* An emission limit of 3.4 lbs NO_X/MMBtu, based on a 720-hr rolling average, shall apply to the Keetac Grate Kiln indurating furnace (EU030) when burning exclusively natural gas. This emission limit shall become enforceable beginning **[DATE 3 YEARS AFTER THE EFFECTIVE DATE OF FINAL RULE]**.

(2) *Limit when burning fuel other than exclusively natural gas.* An emission limit of 2.0 lbs NO_X/MMBtu, based on a 720-hr rolling average, shall apply to the Keetac Grate Kiln indurating furnace when burning any fuel or combination of fuels other than exclusively natural gas. This emission limit shall become enforceable beginning **[DATE 5 YEARS AFTER EFFECTIVE DATE OF FINAL RULE]**, unless before **[DATE 5 YEARS AFTER EFFECTIVE DATE OF FINAL**

RULE], EPA promulgates a modified limit in accordance with the procedures set forth in paragraph (b)(1)(i)(C). The emission limit in this paragraph shall apply unless adjusted as described in paragraph (b)(1)(i)(C)(3), and only if the data submitted to EPA pursuant to paragraph (b)(1)(i)(C)(1) support such an adjustment.

(B) *Installation of NO_X reduction technology.* The NO_X reduction technology shall be installed no later than **[DATE 3 YEARS AFTER EFFECTIVE DATE OF FINAL RULE].**

(C) *Process to modify emission limit when burning fuel other than exclusively natural gas.* If the owner or operator of Keetac requests to modify the emission limit that applies when burning fuel other than natural gas, then the owner or operator shall collect and submit data and an engineering report to EPA in accordance with the following process.

(1) *Collection and reporting of data*. The owner or operator of Keetac shall submit to EPA data collected when burning any fuel or combination of fuels other than exclusively natural gas during the period following installation of the NO_X reduction technology until completion of 5100 hours of data collection. Data shall be submitted to EPA no later than 30 days after completion of 5100 hours of data collection and in any case no later than **[DATE 52 MONTHS AFTER EFFECTIVE DATE OF FINAL RULE].** The data shall include hourly NO_X emissions recorded by CEMS in lbs NO_X/MMBtu; hourly values of the operating parameters identified in paragraph (b)(1)(i)(C)(2); hourly process and CEMS information and codes;

and hourly heat input in MMBtu by fuel type. EPA will consider the data submitted in accordance with the requirements of this paragraph and (b)(1)(i)(C)(3). Data collected during the first 720 hours burning fuel other than exclusively natural gas are considered the optimization period and shall be submitted to EPA but shall not be included in the 4380 hours of data considered for limit adjustment purposes. If the owner or operator wishes to exclude any data from consideration due to pellet quality concerns, then the owner or operator shall, to the extent applicable, submit to EPA information regarding the following factors: compression, reducibility, before tumble, after tumble, low temperature disintegration, clustering, and swelling. For each of the pellet quality analysis factors, the owner or operator must explain the pellet quality analysis factor, as well as the defined acceptable range for each factor using the applicable product quality standards based upon customers' pellet specifications that are contained in Keetac's ISO 9001 quality management system. The owner or operator shall also provide to EPA pellet quality analysis testing results that state the date and time of the analysis and, in order to define the time period when pellets were produced outside of the defined acceptable range for the pellet quality factors listed, include copies of the production logs that clearly define which hours of operation correspond to the production of the pellets tested, and document which hours produced pellets that met specifications and which hours produced pellets that failed to meet specifications. The

owner or operator shall report all raw data in a format consistent with and able to be manipulated by Microsoft Excel including formulas, as appropriate, in each cell.

(2) *Engineering report.* No later than 30 days after completion of 5100 hours of data collection and in any case no later than **[DATE 52 MONTHS AFTER EFFECTIVE DATE OF FINAL RULE],** the owner or operator of Keetac shall submit to EPA a final report including modeling demonstrating the selected NO_X reduction technology is designed to achieve NO_X emissions no greater than the emission limits specified in paragraph (b)(1)(i)(A)(2) and identifying the operating parameters and set points upon which the modeling was based.

(3) *Emission limit adjustment.* If EPA determines that the data submitted in accordance with paragraph (b)(1)(i)(C)(1) satisfy the criteria in that paragraph, then EPA shall use the applicable equation set forth in paragraph (f) to determine whether adjustment of the emission limit set forth in paragraph (b)(1)(i)(A)(2) is appropriate. If revised, the NO_X emission limit when burning any fuel or combination of fuels other than exclusively natural gas may be no greater than 2.5 lbs NO_X/MMBtu, based on a 720-hr rolling average. The data set used for the determination shall include only data that meet both pellet quality specifications and optimized operating parameters related to process and NO_X reduction technology operation as identified in paragraph (b)(1)(i)(C)(2). If the data submitted pursuant to paragraph (b)(1)(i)(C)(1) are normally distributed and

statistically independent, EPA shall use the upper predictive limit (UPL) equation provided in paragraph (f)(1). If the data submitted pursuant to paragraph (b)(1)(i)(C)(1) are not normally distributed or are normally distributed but not statistically independent, EPA shall use the non-parametric equation provided in paragraph (f)(2). If, after receiving complete data from the owner or operator as specified in (b)(1)(i)(C)(1), the results of the equation support an emission limit other than 2.0 lbs NO_X/MMBtu when burning any fuel or combination of fuels other than exclusively natural gas, EPA shall initiate a rulemaking to adjust the emission limit. If the results of the equation do not support an adjustment of the 2.0 lbs NO_X/MMBtu emission limit, then EPA shall take final agency action to notify the owner or operator of Keetac in writing. If the owner or operator does not submit data to EPA by **[DATE 54 MONTHS AFTER EFFECTIVE DATE OF FINAL RULE]** in accordance with paragraph (b)(1)(i)(C)(1) for burning any fuel or combination of fuels other than exclusively natural gas or if EPA determines that the owner or operator did not provide complete data supporting such an adjustment in accordance with paragraph (b)(1)(i)(C)(1), then the 2.0 lbs NO_X/MMBtu emission limit shall remain in place and applicable.

(D) *Compliance demonstration.* Compliance with the emission limits shall be demonstrated with hourly data collected by a continuous emissions monitoring system for NO_X. The CEMS shall be continuously operated and maintained in accordance with 40 CFR

Part 60 Appendix F. CEMS records shall be maintained onsite for a period no less than 5 years.

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[FR Doc. 2025-07055 Filed: 4/23/2025 8:45 am; Publication Date: 4/24/2025]