THE ADMINISTRATOR OF THE ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

JAN 18 2017

John D. Lazzaretti
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127 Public Square
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Dear Mr. Lazzaretti:

On November 26, 2013, on behalf of the United States Steel Corporation, you submitted a petition requesting that the U.S. Environmental Protection Agency reconsider and stay our final rulemaking captioned "States of Minnesota and Michigan; . . . Federal Implementation Plan for Regional Haze," published on February 6, 2013, at 78 Fed. Reg. 8706, as well as our final rulemaking captioned "States of Michigan and Minnesota; Regional Haze," published on September 30, 2013, at 78 Fed. Reg. 59825. By the February 6, 2013, rulemaking, the EPA promulgated a Federal Implementation Plan establishing Best Available Retrofit Technology (BART) emission limits for certain taconite facilities in Michigan and Minnesota.

By the September 30, 2013, rulemaking, the EPA partially disapproved the Michigan and Minnesota regional haze State Implementation Plans for failure to mandate appropriate BART emission limits for taconite facilities within these states. Further, on June 13, 2016, on behalf of U.S. Steel, you submitted a petition requesting that the EPA reconsider and stay our final rulemaking captioned "Revision to 2013 Taconite Federal Implementation Plan Establishing BART for Taconite Plants," published on April 12, 2016, at 81 Fed. Reg. 21672.

As discussed more fully in the enclosure, the EPA denies the above-referenced petitions because the petitions do not meet the two-step test to determine whether reconsideration should be granted, as required by section 307(d)(7)(B) of the Clean Air Act. Under that test a petitioner must first show that it was impracticable to raise the comment or objection within the time period for public comment of the rule or that the grounds for the comment or objection arose after the period for public comment (but within the time specified for judicial review). Secondly, the petitioner must show that the comment or objection is of "central relevance to the outcome of the rule." Based upon our review, the petitions fail to meet the two steps required by section 307(d)(7)(B) of the Act.

Should you have additional questions about this matter, you may contact Matthew Marks, at (202) 564-3276 or marks.matthew@epa.gov.

Sincerely,

Gina McCarthy

Basis for Denial of Petitions for Reconsideration submitted by
U.S. Steel Corporation on November 26, 2013, and June 13, 2016

I. Background

A. Petitions for Reconsideration

Section 307(d)(7)(B) of the Clean Air Act ("CAA") requires the EPA to convene a proceeding for reconsideration of a rule if a party raising an objection to the rule can demonstrate (1) "that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review)" and (2) that "such objection is of central relevance to the outcome of the rule." 42 U.S.C. § 7607(d)(7)(B). In the EPA's view, an objection is of central relevance to the outcome of a rule only if it provides substantial support for the argument that the rule should be revised. *See, e.g.*, the EPA's Denial of the Petitions to Reconsider the Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202 of the Clean Air Act, 75 Fed. Reg. 49,556, 49,561 (Aug. 13, 2010); *see also Coal. for Responsible Regulation v. EPA*, 684 F.3d 102, 125 (D.C. Cir. 2012) (acknowledging and applying the EPA's interpretation of the central relevance criterion); *North Carolina v. EPA*, 531 F.3d 896 (D.C. Cir. 2008) (holding that a petitioner fails to demonstrate that its objection is of central relevance when the petitioner "vaguely alludes to EPA's incorrect factual assumptions," but "fails to support [its] assertion") (internal quotation omitted). Put another way, an objection is of central relevance to the outcome of a rule if the objection has substantive merit and would thus lead the EPA to reach a different outcome. When the EPA denies a petition for reconsideration, the "EPA certainly may . . . provide an explanation for that denial, including by providing support for that decision, without triggering a new round of notice and comment for the rule." *Coal. for Responsible Regulation*, 684 F.3d at 126.

B. The CAA's Visibility Program, the Regional Haze Rule, and Best Available Retrofit Technology

Congress created a program for protecting visibility in the nation's parks and wilderness areas by enacting Section 169A of the CAA in 1977. Section 169A 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." 42 U.S.C. § 7491(a)(1). Congress added Section 169B to the CAA in 1990 to address regional haze issues. The EPA promulgated a rule to address regional haze on July 1, 1999. 64 Fed. Reg. 35,714, *codified* at 40 C.F.R. pt. 51, subpt. P (the "Regional Haze Rule"). The Regional Haze Rule revised the EPA's existing visibility regulations to address regional haze and established a comprehensive visibility protection program for Class I areas. The Regional Haze Rule required states to submit state implementation plans ("SIPs") to implement the rule's requirements by no later than December 17, 2007. Many states failed to meet this deadline.

[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).

Among other things, Section 169A directs states, or the EPA when developing a FIP, to determine the best available retrofit technology ("BART") for certain larger, often uncontrolled, older stationary sources in order to address visibility impacts from those sources. 42 U.S.C. § 7491(b)(2)(A). On July 6, 2005, EPA published the *Guidelines for BART Determinations Under the Regional Haze Rule* to assist states in determining which sources are subject to the BART requirements, what controls represent BART at each applicable source, and what the appropriate emission limits are for each source. 70 Fed. Reg. 39,104, *codified* at 40 C.F.R. pt. 51 app. Y (the "BART Guidelines"). Once a state or the EPA has made a BART determination, Section 169A requires the source to install and operate the controls as expeditiously as practicable, but no later than five years after the date of SIP approval or FIP promulgation. 42 U.S.C. § 7491(g)(4).

C. Regulatory History

Minnesota did not submit a regional haze SIP by the December 17, 2007 deadline. Therefore, in 2009, the EPA made a finding that Minnesota had failed to submit a required plan revision. *See* 74 Fed. Reg. 2392 (Jan. 15, 2009). At the same time, the EPA found that Michigan had failed to submit as part of its regional haze SIP a plan for addressing the BART requirement for taconite facilities subject to BART. *Id.* In accordance with Section 110(c) of the CAA, these findings created independent obligations for the EPA to issue a FIP for each state within two years (i.e., by January 15, 2011) to address BART for taconite facilities unless the states subsequently submitted SIPs addressing the deficiencies that the EPA approved. The EPA missed this deadline, was sued under the CAA's citizen-suit provision for failing to perform a non-discretionary duty, and entered into a consent decree that contained new deadlines for issuing FIPs or fully approving SIPs for Minnesota and Michigan.

Consequently, on February 6, 2013, the EPA promulgated a FIP that included BART limits for sulfur dioxide ("SO_2") and nitrogen oxide ("NO_X") emissions from furnaces at seven taconite facilities in Michigan and Minnesota. 78 Fed. Reg. 8706 ("2013 FIP"). The EPA determined that NO_X BART was an emission limit of either 1.2 or 1.5 lb NO_X/MMBtu (depending on fuel), which were based on a technology called low NO_X burners that had been successfully installed on two taconite furnaces owned and operated by U.S. Steel Corporation ("U.S. Steel"). The EPA also determined that SO_2 BART was the use of low-sulfur fuels, with the emissions limit for each furnace being based on the production levels at the furnace and other site-specific factors. The taconite facilities are variously owned and operated by Cliffs Natural Resources ("Cliffs"), ArcelorMittal USA LLC ("ArcelorMittal"), and U.S. Steel. ArcelorMittal owns and operates ArcelorMittal Minorca Mine. Cliffs owns and operates Northshore Mining Company, Tilden Mining Company, and United Taconite. U.S. Steel owns and operates Keetac and Minntac. ArcelorMittal, Cliffs, and U.S. Steel jointly own Hibbing Taconite Company, which is operated solely by Cliffs. All of the taconite facilities are located in Minnesota except Tilden, which is located in Michigan.

ArcelorMittal, Cliffs, and the State of Michigan filed timely petitions for review of the 2013 FIP in the Eighth Circuit Court of Appeals. Cliffs and ArcelorMittal also filed a joint motion seeking a stay of the 2013 FIP, which the Eighth Circuit granted on June 14, 2013. In addition, ArcelorMittal, Cliffs, Congressman Richard M. Nolan, the National Mining Association, and the State of Michigan submitted petitions for reconsideration of the 2013 FIP pursuant to Section

307(d)(7)(B) of the CAA. U.S. Steel did not file a timely petition for review of the 2013 FIP or submit a petition for reconsideration at this time.

On September 30, 2013, in a separate action, the EPA finalized partial disapprovals of Minnesota and Michigan's late-submitted regional haze SIPs for failing to require BART for the taconite furnaces. 78 Fed. Reg. 59,825 ("SIP Disapprovals"). Among other things, the EPA found that Minnesota and Michigan had erred by determining that an undefined set of "good combustion practices" represented NO_X BART when U.S. Steel had successfully installed low NO_X burners, a more effective control technology, on Lines 6 and 7 of its Minntac facility in Minnesota. While the EPA intended to finalize the SIP Disapprovals and the 2013 FIP at the same time, the EPA was unable to do so due to complications arising from the aforementioned consent decree deadlines in the citizen-suit litigation.

Subsequently, ArcelorMittal, Cliffs, the State of Michigan, and U.S. Steel filed petitions for review of the SIP Disapprovals in the Eighth Circuit. They also filed a joint motion to consolidate the petitions for review of the SIP Disapprovals with the petitions for review of the 2013 FIP, but the Eighth Circuit denied that motion. The petitions for review of the SIP Disapprovals are in abeyance and remain pending at this time. In addition, ArcelorMittal, Cliffs, and U.S. Steel submitted petitions for reconsideration of the SIP Disapprovals. In its petition for reconsideration, U.S. Steel simultaneously sought reconsideration of the 2013 FIP and an administrative continuation of the stay put in place by the Eighth Circuit.

In 2015, the EPA reached an agreement with Cliffs, ArcelorMittal, and the State of Michigan to settle their petitions for review of the 2013 FIP and the SIP Disapprovals. The EPA published notice of the settlement agreement in the Federal Register on January 30, 2015, *see* 80 Fed. Reg. 5111, and executed the agreement on April 9, 2015. On July 2, 2015, pursuant to the settlement agreement, the EPA granted partial reconsideration of the 2013 FIP based on new information raised in the petitions for reconsideration submitted by Cliffs and ArcelorMittal. Specifically, the EPA granted reconsideration with respect to the BART emission limits and compliance schedules for United Taconite, Hibbing, Tilden, and ArcelorMittal Minorca Mine.

On October 22, 2015, consistent with the settlement agreement, the EPA proposed to revise the 2013 FIP and promulgate new BART limits and compliance schedules for the facilities owned and operated by Cliffs and ArcelorMittal. 80 Fed. Reg. 64,160. The EPA finalized the FIP revision on April 12, 2016. 81 Fed. Reg. 21,672 ("2016 FIP").

Subsequently, ArcelorMittal, Cliffs, and U.S. Steel filed petitions for review of the 2016 FIP in the Eighth Circuit and submitted petitions for reconsideration of the 2016 FIP to the EPA. The petitions for review of the 2016 FIP remain pending at this time.

On November 15, 2016, over the objection of U.S. Steel, the Eighth Circuit dismissed the original petitions for review of the 2013 FIP filed by ArcelorMittal, Cliffs, and the State of Michigan and terminated the stay entered on June 14, 2013. The Eighth Circuit extended the remaining deadlines in the 2013 FIP, which apply to U.S. Steel's Keetac and Minntac facilities, by one day for each day that the stay was in place. Thus, U.S. Steel must comply with NO_X BART emission limits at Keetac by September 8, 2019, and at Minntac Lines 3-7 by

August 8, 2021, September 8, 2020, September 8, 2019, September 8, 2017 and September 8, 2018. These deadlines are comparable to the new NO_X BART deadlines with which ArcelorMittal and Cliffs must comply in the 2016 FIP.

II. U.S. Steel's Petitions for Reconsideration

A. Petition for Reconsideration of the 2013 FIP and the SIP Disapprovals

In its 2013 petition for reconsideration, U.S. Steel argues that variations in the furnaces at Keetac and Minntac Lines 3, 4, and 5 will lead to significantly higher installation costs for low NO_X burners than U.S. Steel incurred at Minntac Lines 6 and 7. U.S. Steel further claims that these furnace variations will make it difficult or impossible to achieve NO_X reductions similar to those achieved at Minntac Lines 6 and 7 without some impact to pellet quality or production. U.S. Steel supports its claims with (1) a declaration from one of its employees; (2) a November 26, 2013 preliminary engineering report from Hatch, the firm U.S. Steel retained to retrofit a low NO_X burner at Keetac; and (3) a table comparing the scope of the low NO_X burner installation projects for Keetac and Minntac Lines 4, 5, 6, and 7. U.S. Steel asserts that it would have been impracticable to introduce this information during the public comment period for the 2013 FIP or the SIP Disapprovals because "significant study" was needed before the cost, pellet quality, and safety impacts of installing low NO_X burners at Keetac and Minntac Lines 3, 4, and 5 became known. U.S. Steel maintains that the information is timely for reconsideration purposes because it was developed in November 2013, within the period for judicial review of the SIP Disapprovals. U.S. Steel argues that its petition should be deemed timely with respect to the 2013 FIP as well because the 2013 FIP was "integral" to the SIP Disapprovals and was "incorporated by reference into" the SIP Disapprovals. Finally, U.S. Steel argues that the information is of central relevance to the 2013 FIP and the SIP Disapprovals because the rules relied heavily on the success of low NO_X burners at Minntac Lines 6 and 7 to justify requiring them as BART for U.S. Steel's other furnaces. U.S. Steel concludes by requesting that the EPA "promulgate a case-by-case BART determination process or approve the case-by-case BART analysis contained in Minnesota's SIP after adequate clarification of what constitutes good combustion practices" and, if necessary, issue an administrative stay pending reconsideration.

B. Petition for Reconsideration of the 2016 FIP

In its 2016 petition for reconsideration, U.S. Steel raises two arguments. First, U.S. Steel argues that the 2016 FIP created a competitive disadvantage for U.S. Steel by requiring it to install continuous emissions monitoring systems ("CEMS") and comply with SO_2 emission limits before its competitors (ArcelorMittal and Cliffs). U.S. Steel argues that the EPA did not provide notice of the new CEMS deadlines for its Keetac and Minntac facilities in the 2016 FIP proposal, which prevented U.S. Steel from commenting on the schedule. U.S. Steel also argues that its schedule for complying with the CEMS requirements does not comport with the stayed schedule for complying with SO_2 emission limits in the 2013 FIP, meaning the EPA's action was arbitrary and capricious.

Second, U.S. Steel argues that new information submitted with its petition demonstrates the continued need for revisions to the BART requirements for Keetac and Minntac. This information includes (1) a declaration from a U.S. Steel employee; (2) a two-page regression analysis of baseline NO_X emissions at Keetac; (3) a February 24, 2016 BART analysis for

Keetac prepared by Barr Engineering; (4) an executive summary of a modeling report issued in the fall of 2015 by FCT Combustion that evaluated the potential performance of a low-stoich low-NO_X burner at Keetac; (5) the FCT modeling report; (6) a three-page proposal for new NO_X emission limits for Keetac based on the installation of new "preheat burners" instead of new low-NO_X main burners; (6) a May 24, 2016 addendum to a December 18, 2012 technical analysis performed by Metso; (7) a two-page summary of an investigation conducted by Coen regarding the installation of high-stoich low-NO_X burners at Keetac; and (8) a table accompanying the summary of the Coen investigation. U.S. Steel asserts that "much" of this information was obtained after the comment period for the 2016 FIP, but within the time for judicial review, and that the information is centrally relevant to the outcome of the rule because it shows that a different approach to BART for the furnaces at Keetac and Minntac is needed. At bottom, U.S. Steel believes that the 2016 FIP placed U.S. Steel at a competitive disadvantage because it revised requirements for taconite facilities owned and operated by ArcelorMittal and Cliffs, but not U.S. Steel's Keetac and Minntac facilities. Finally, U.S. Steel requests an administrative stay of the 2016 FIP pending the completion of a reconsideration proceeding that promulgates new emission limits and compliance schedules for the furnaces at Keetac and Minntac.

III. The EPA's Response to U.S. Steel's Petitions

A. U.S. Steel's 2013 Petition

The EPA is denying U.S. Steel's 2013 petition for reconsideration of the 2013 FIP and the SIP Disapprovals, as well as U.S. Steel's request for an administrative stay of the 2013 FIP because U.S. Steel has not satisfied either prong of the test in Section 307(d)(7)(B) of the CAA. With respect to the 2013 FIP, U.S. Steel's request is not timely. The EPA promulgated the 2013 FIP on February 6, 2013. 78 Fed. Reg. 8706. The 2013 FIP specified that the time to file petitions for judicial review ended on April 8, 2013. *Id.* at 8733. U.S. Steel submitted its petition for reconsideration to the EPA on November 26, 2013, over seven months after the April 8, 2013 deadline. U.S. Steel does not argue that the information contained in the petition arose after the comment period but within the time specified for judicial review. Instead, U.S. Steel relies on two cases, *Montana v. Clark*, 749 F.2d 740, 743-44 (D.C. Cir. 1984) and *Ohio v EPA*, 838 F.2d 1325, 1328 (D.C. Cir. 1988), to argue that the EPA reopened the 2013 FIP when the Agency partially disapproved the Minnesota SIP. U.S. Steel's argument lacks merit. In *Montana*, the Secretary of the Interior re-promulgated regulations to determine whether they complied with Executive Order 12291 and did not limit comments to consideration of the burdensomeness of the regulations. 749 F.2d at 743. Likewise, in *Ohio*, the EPA revised a regulation and republished certain portions unchanged, but explained the unchanged portions and responded to a comment on them. 838 F.2d at 1328. Here, in contrast, the EPA did not re-promulgate or republish the 2013 FIP when the Agency disapproved the Minnesota SIP. While the two actions are related, they are clearly distinct and separate. In the 2013 FIP, the EPA made BART determinations for the taconite industry and promulgated emission limits and compliance schedules. The EPA's authority to promulgate the 2013 FIP was based on the EPA's 2009 finding that Michigan and Minnesota had failed to submit all or part of their regional haze SIPs by the statutory deadline. In the SIP Disapprovals rulemaking, on the other hand, the EPA determined that the regional haze SIPs submitted by Michigan and Minnesota after the EPA's finding of failure to submit were inadequate. The EPA did not republish the regulatory language in the 2013 FIP in the SIP

Disapprovals, nor did the EPA seek comment on the 2013 FIP. Therefore, the reopener doctrine does not apply, and U.S. Steel's petition for reconsideration of the 2013 FIP is untimely.

Even if U.S. Steel's petition was timely with respect to the 2013 FIP, however, U.S. Steel has not demonstrated why it was impracticable to raise its objections during the public comment period or how its objections are of central relevance to the outcome of the rule. While U.S. Steel styles its objections as relying on newly developed information that required significant study, U.S. Steel either had knowledge or should have had knowledge of the information during the comment period. For example, U.S. Steel points to several differences between Minntac Lines 6 and 7 and Keetac as support for its argument that new BART determinations are necessary. These include increased airflow that will necessitate larger fans at Keetac and the fact that Keetac does not have preheaters or ported kilns like Minntac Lines 6 and 7. Clearly, U.S. Steel was aware of the design differences among its furnaces during the comment period and could have raised objections related to those issues at that time. With respect to the need for new fans, U.S. Steel actually raised this issue during the comment period on the 2013 FIP proposal. In its comments dated September 28, 2012, U.S. Steel stated: "[D]ue to the lead time associated with acquiring process fans at Keetac, which is estimated to be 52 weeks according to a third-party engineering firm working on the project, and the timing of the major outage schedule, which only occurs once per year . . . U.S. Steel requests an additional 12 months to the proposed schedule for installation." Comments at 6. Further, in recognition of the time it would take to adapt the low NO_X technology used at Minntac Lines 6 and 7 for installation at Keetac, U.S. Steel requested additional time to install and shakedown the technology. *Id.* ("In addition, because this will be the first installation of this technology at Keetac and based upon the experience with installation of this technology at Minntac, U. S. Steel requests an additional 6 months prior to compliance with the proposed emission limit to allow for a shakedown period to optimize the burner for NO_X reductions."). Consequently, in the final rule, the EPA provided U.S. Steel with additional time to procure new fans and achieve compliance. 78 Fed. Reg. at 8726-27. Furthermore, U.S. Steel encountered the same issue when installing a low NO_X burner at Minntac Line 6. U.S. Steel's December 1, 2011 final report detailing the installation states: "There were 3 significant design changes that were made when compared to the Line 7 low NO_X main burner. The first modification was increasing the size of the combustion air fans. The fan capacity was increased by 25% to ensure there was sufficient combustion air to ensure the appropriate stoichiometric ratio to achieve the NO_X reductions. This required an addition to the north side of the Step 3 Agglomerator building in order to house the combustion fans." Minntac Line 6 Report at 8. Thus, U.S. Steel has not identified any new information that arose after the close of the public comment period regarding differences among the Keetac and Minntac furnaces that could not have been raised earlier. The dimensions of the grate-kiln and surrounding area at Keetac have not changed, and U.S. Steel was aware of the size of low NOx burners, the need for increased air flow, and the likely need to modify the burner size or physical space to best accommodate the installation.

U.S. Steel also raises concerns with pellet quality and health and safety issues, alleging that these too are based on new information. Specifically, U.S. Steel states: "Since the combustion air at Keetac is used to dry the green balls before they enter the furnace, an increase in airflow at the burner will result in a proportional increase in air pressure up the line. At this point in the production process, since they have not been hardened, the pellets are not capable of withstanding significant pressure and can deform adversely impacting pellet quality." 2013

Petition at 13; *see also* 2013 Petition Exhibit A at 2; 2013 Petition Exhibit B at 3. With respect to health and safety concerns, U.S. Steel states that "it is expected that installing a [low NO_X burner] at Keetac will result in much higher pellet discharge temperatures. Dumping hot pellets from the cooler can result in safety issues such as burning belts and steam, which can be a visibility impairment and burn hazard." 2013 Petition Exhibit A at 2. The EPA disagrees that these concerns could not have been raised during the public comment period. As discussed above, U.S. Steel was fully aware of the increased airflow necessary at Keetac at the time of the proposed rule. Thus, it was not impracticable for U.S. Steel to have raised potential concerns with pellet quality at that time. Furthermore, U.S. Steel has not performed any testing to simulate the deformation of green balls or explored ways of reducing or mitigating the issue, such as baffles or a redistribution of the airflow. Without such analysis, U.S. Steel has not presented new information, only unsubstantiated speculation based on information that was available during the comment period and that is not centrally relevant to the outcome of the rule. Likewise, U.S. Steel was aware of potential health and safety issues long ago. The December 1, 2011 Minntac Line 6 report identified "pellets dumping hot from the cooler . . . created steam and poor visibility on the burner floor which is a safety concern." Minntac Line 6 Report at 15. The report also indicated that this resulted in "excessive mechanical wear, high fuel rates, and below target pellet quality." *Id.* at 16. But, the report concludes by explaining that U.S. Steel eliminated these problems through the implementation of corrective projects and process optimization. *Id.*

Finally, U.S. Steel raises concerns with the cost of installing low NO_X burners at Keetac. U.S. Steel states that installing low NO_X burners at Keetac would "require a significant increase in both the size of the burner and the amount of air required to achieve NO_X reductions . . . [and] would require upgrades to the physical plant, combustion fans, and cooling system that would increase the costs of the installation and operation well beyond EPA's estimates." 2013 Petition at 3-4. U.S. Steel asserts that the "installation of low NO_X technology at Keetac would cost between $21,000,000 and $26,000,000, four to five times the cost of installing similar technology at Minntac." *Id.* at 14. Again, U.S. Steel has failed to explain how it was impracticable to raise this objection during the public comment period. As previously discussed, U.S. Steel knew that the installation and operation of low NO_X burners at Keetac would require significantly more airflow. U.S. Steel also knew, based on the physical changes that were necessary at Minntac Line 6, that significant physical changes would likely be required at Keetac as well. Moreover, the cost information that U.S. Steel presents is simply an order of magnitude capital cost estimate. U.S. Steel provides no vendor quotes or any other apparent basis to support the cost estimates. For example, the report prepared by Hatch estimates indirect costs of over $4 million dollars for EPCM (Engineering, Procurement, Construction, Management) and $3.5 million dollars for contingency, but does not explain or document these estimates, which are much higher than those indicated in the EPA's Air Pollution Control Cost Manual ("CCM"). *See* CCM at 2-42. Finally, even if the costs were accurate, they are still reasonable. The cost-effectiveness of low NO_X burners at Minntac Line 6 was $210 per ton of NO_X reduced when burning natural gas and $441 per ton when co-firing coal and gas. Five times these amounts is $1,050 to $2,200 per ton, well within the range where costs have been deemed reasonable by states and the EPA in other BART determinations. For example, the EPA's FIP for Wyoming required NO_X BART controls that cost over $4,000 per ton. *See* 79 Fed. Reg. 5039, 5156-58 (Jan. 30, 2014). Consequently, U.S. Steel's cost concerns are not of central relevance to the outcome of the rule.

U.S. Steel also petitions for reconsideration of the SIP Disapprovals. While timely, U.S. Steel's objections could have been raised during the comment period for the reasons explained above. More importantly, however, U.S. Steel has failed to raise any objection that would justify a different outcome with respect to the SIP Disapprovals. In the SIP Disapprovals, the EPA rejected Michigan and Minnesota's BART determinations for the taconite facilities on numerous grounds, including that the states summarily dismissed technically feasible controls, selected an unidentified set of "good combustion practices" as NO_X BART even though the term usually refers to practices that increase NO_X emissions, and failed to properly assess the costs of SO_2 controls. 78 Fed. Reg. at 58,838. The EPA's full rationale for disapproving the SIPs is laid out in detail in the proposal for that action. 78 Fed. Reg. 8478 (Feb. 6, 2013). U.S. Steel does not explain why the EPA's conclusions were incorrect or how the alleged new information in the petition could possibly cure the analytical deficiencies in the states' SIPs. Indeed, U.S. Steel has already installed low NO_X burners on Minntac Lines 5, 6, and 7, so Minnesota's conclusion that the technology was not technically feasible is clearly incorrect. Moreover, even if U.S. Steel's objections had merit with respect to Keetac and the remaining Minntac lines, which they do not, it would not make an unidentified set of practices that increases NO_X emissions approvable as BART. Therefore, U.S. Steel's objections are not relevant, let alone centrally relevant, to the outcome of the SIP Disapprovals.

In conclusion, U.S. Steel's petition for reconsideration of the 2013 FIP is untimely and raises objections that could have been made during the public comment period. Moreover, the alleged hurdles U.S. Steel identifies are either speculative or addressable, so they are not centrally relevant to the outcome of the rule. While timely, U.S. Steel's petition for reconsideration of the SIP Disapprovals rests on the same objections. They could have been raised during the public comment period and, in any event, are not centrally relevant to the outcome of that rulemaking. Therefore, in accordance with Section 307(d)(7)(B) of the CAA, the EPA is denying the 2013 petition and denying U.S. Steel's request for an administrative stay.

B. U.S. Steel's 2016 Petition

1. SO_2 CEMS Deadline

The EPA is denying U.S. Steel's 2016 petition for reconsideration of the 2016 FIP with respect to this issue because U.S. Steel has not demonstrated that its objection is of central relevance to the outcome of the final rule in accordance with Section 307(d)(7)(B) of the CAA. The 2013 FIP required U.S. Steel's Keetac and Minntac facilities to comply with SO_2 emission limits beginning 3 months from March 8, 2013, the effective date of the final rule. 78 Fed. Reg. at 8739-40. The SO_2 limits for Keetac and Minntac reflected the performance levels that the facilities were already achieving with existing controls. *Id.* at 8730-31. The 2013 FIP also required U.S. Steel to install and operate SO_2 CEMS no later than six months after March 8, 2013. *Id.* at 8740. U.S. Steel was already complying with this requirement as well because U.S. Steel installed SO_2 CEMS at Keetac and Minntac in 2008 and had been operating them since that time. For example, in its comments on the 2013 FIP proposal, U.S. Steel submitted three years of CEMS data to justify a request for modifications to the EPA's proposed SO_2 emission limits for Minntac, which the EPA granted. *Id.* at 8719.

In the 2016 FIP proposal, the EPA proposed new SO_2 CEMS deadlines for taconite facilities owned and operated by ArcelorMittal and Cliffs that were consistent with the terms of a settlement agreement. The EPA did not propose any changes to the SO_2 CEMS deadlines for U.S. Steel's facilities because U.S. Steel was not a party to the settlement agreement. In the final 2016 FIP, however, the EPA inadvertently changed U.S. Steel's SO_2 CEMS installation deadline from six months after March 8, 2013, to six months after May 12, 2016, the effective date of the 2016 FIP. While U.S. Steel is correct that it did not have notice of the change, U.S. Steel fails to explain how the change had any practical effect, let alone how it could possibly be of central relevance to the outcome of the rule. As explained above, U.S. Steel installed SO_2 CEMS at Keetac and Minntac in 2008, and the SO_2 emission limits in the 2013 FIP were based on those facilities' existing performance. Therefore, U.S. Steel was not prejudiced by the unnoticed change. U.S. Steel states that the new SO_2 CEMS installation deadline triggers other deadlines for a performance evaluation, QA/QC checks, and recordkeeping and reporting requirements. 2016 Petition at 12. But U.S. Steel's Title V operating permits for Minntac and Keetac reveal that the SO_2 CEMS at both facilities meet these requirements as well.

Finally, U.S. Steel alleges that the new SO_2 CEMS deadline is "illogical" because it differs from U.S. Steel's SO_2 emission limit deadlines and "inequitable" because it differs from the deadlines for its competitors, ArcelorMittal and Cliffs. While these arguments are irrelevant for the reasons discussed above, U.S. Steel is also incorrect. U.S. Steel's new SO_2 CEMS installation deadline was November 12, 2016 (six months after the effective date of the 2016 FIP). This is the same deadline by which ArcelorMittal and Cliffs had to install SO_2 CEMS, and it was just three days prior to U.S. Steel's deadline for complying with its status-quo SO_2 emission limits[2] (November 15, 2016, the day the Eighth Circuit lifted the stay of the 2013 FIP). Moreover, these dates have now passed, and the EPA has no reason to believe that U.S. Steel is not in compliance. For all of these reasons, the EPA is denying U.S. Steel's petition for reconsideration with respect to this issue.

2. NO_X BART Determinations

The EPA is denying U.S. Steel's 2016 petition for reconsideration of the 2016 FIP with respect to this issue because U.S. Steel's petition is not timely and U.S. Steel has not demonstrated that its objection is of central relevance to the outcome of the final rule, as required by Section 307(d)(7)(B) of the CAA. The 2016 FIP rulemaking implemented the terms of a settlement agreement entered into by the EPA, ArcelorMittal, Cliffs, and the State of Michigan. U.S. Steel was not a party to that settlement agreement. As such, the EPA did not propose to revise the BART requirements in the 2013 FIP that applied to U.S. Steel's facilities in the 2016 FIP rulemaking and, with the exception of the inadvertent change to the SO_2 CEMS deadline discussed above, did not finalize any revisions to those requirements. Furthermore, the EPA did not seek comment on whether the Agency should revise the BART requirements for U.S. Steel's facilities and rejected any such comments it did receive as outside the scope of the rulemaking. 81 Fed. Reg. at 21,678-79. Consequently, while U.S. Steel styles its objection as a timely attack on the lack of new NO_X BART determinations for Keetac and Minntac in the 2016 FIP, it is just

[2] In the 2013 FIP proposal, the EPA similarly proposed the same deadlines for SO_2 CEMS installation and SO_2 emission limit compliance. 77 Fed. Reg. at 49,339-41. U.S. Steel filed no adverse comments regarding this schedule.

another untimely attack on the appropriateness of the NO_X BART requirements that were promulgated in the 2013 FIP.

Moreover, even under U.S. Steel's characterization of its petition, U.S. Steel has not demonstrated why it was impracticable to raise its objections during the public comment period for the 2016 FIP. The comment period for the 2016 FIP proposal was open from October 22, 2015, to November 23, 2015. 80 Fed. Reg. at 64,160. The EPA reopened the comment period on the 2016 FIP proposal from December 16, 2015, to December 23, 2015. 80 Fed. Reg. 78,159 (Dec. 16, 2015). U.S. Steel's objection relies on an attached declaration from its employee, Lawrence Sutherland, and eight exhibits to that declaration. The declaration itself merely references and describes the information in the attachments. *See* 2016 Petition Attachment A. The first exhibit is a regression analysis of NO_X emissions from 2013 to 2014 from Keetac. *See* 2016 Petition Exhibit A. Because this analysis relies on data from 2013 to 2014, it could have been submitted during the comment period. The second exhibit is a February 24, 2016 report from Barr Engineering. *See* 2016 Petition Exhibit B. U.S. Steel does not explain why it was impracticable for U.S. to have contracted for the report earlier so that it could have been submitted during the public comment period. Indeed, the report relies on the same emissions information and alleged technical challenges that were discussed several years earlier in the Hatch report that U.S. Steel submitted with its 2013 petition for reconsideration. The third and fourth exhibits are a FCT modeling summary and report. *See* 2016 Petition Exhibits C & D. The summary indicates that the FCT modeling report was finalized in the fall of 2015, well before the end of the public comment period on December 23, 2015. The fifth exhibit is a short three-page document recommending specific emission limits at Keetac based on the installation of a different technology, new preheat burners. *See* 2016 Petition Exhibit E. U.S. Steel makes no effort to explain when it created the document or why it was impracticable to provide the information therein during the public comment period on the 2016 FIP. The sixth exhibit is a May 24, 2016 update to a December 18, 2012 analysis performed by Metso. *See* 2016 Petition Exhibit F. In the addendum, Metso states that it used "the original base model June 30, 2010 airflow study performed on Keetac Line II along with the modified base model to simulating LNB operation" for the purpose of analyzing and reviewing "specific issues not previously emphasized." 2016 Petition Exhibit F at 1. Given that the Metso addendum is merely a re-analysis of a six-year-old modeling run that opines on issues "not previously emphasized," the EPA fails to see how it was impracticable for U.S. Steel to have contracted for the report earlier so that it could have been submitted during the public comment period. Finally, the seventh and eighth exhibits describe conversations U.S. Steel had with burner manufacturer Coen during the 2011 to 2012 timeframe. *See* 2016 Petition Exhibits G & H. There is no reason why this information could not have been submitted during the public comment period. In summary, while U.S. Steel packages its information as "new," none of it actually relies on facts or data that did not exist or could not have been compiled prior to December 23, 2015.

Finally, the EPA has reviewed U.S Steel's petition, the Sutherland declaration, and its accompanying exhibits and determined that nothing contained therein is of central relevance to the outcome of the 2016 FIP. First, as explained above, the 2016 FIP only revised NO_X BART requirements for taconite furnaces owned and operated by ArcelorMittal and Cliffs. Thus, U.S. Steel's objections related to requirements in the 2013 FIP are not relevant, let alone centrally relevant, to the outcome of the 2016 FIP. Second, U.S. Steel's petition does not include any information that even purports to justify new NO_X BART determinations for Minntac, only

information related to Keetac. Interestingly, whereas U.S. Steel asserted in its 2013 petition for reconsideration that the EPA should either approve Minnesota's determination that "good combustion practices" was NO_X BART for Minntac Lines 3, 4, and 5 or conduct new NO_X BART determinations for those lines, U.S. Steel's 2016 petition for reconsideration now admits that U.S. Steel was able to install a low NO_X burner on Minntac Line 5 in December 2015. 2016 Petition at 10-11.

Third, with respect to Keetac, U.S. Steel's information explains that Hatch and Coen developed a solution (Case 12) to overcome difficulties related to available space and burner sizing. 2016 Petition Exhibit G at 3. This solution required new cooling fans, which the EPA accommodated in the 2013 FIP. Citing to the Barr report and Metso addendum, U.S. Steel asserts that "[a]lthough Case 12 satisfied the requirements of capacity and space for a up to 115% stoichiometric burner, it did not address the issues that came to light regarding pellet quality concerns . . . and economic feasibility." *Id.* The EPA reviewed the Metso addendum, which asserts that modeling simulations show that a high-stoich low NO_X burner will lead to broken pellets and pellet fusing at Keetac. The Hatch report submitted with U.S. Steel's 2013 petition made similar claims. Nevertheless, U.S. Steel has never performed any testing to confirm whether pellet quality issues are real or speculative, nor has U.S. Steel explored ways to reduce or mitigate the issue, such as baffles or a redistribution of the airflow. The EPA also reviewed the Barr report, which asserts that the installation of low NO_X burners at Keetac will cost between $10,100 and $21,000 per ton of NO_X reduced. 2016 Petition Exhibit B at 6. These figures appear seriously inflated, as they are several orders of magnitude larger than the costs experienced at Minntac and ten times larger even than the estimated costs in the Hatch report submitted with U.S. Steel's 2013 petition. The Barr report indicates that the major cost drivers were the need for a revised burner design and new process fans, *id.* at 6-7, but these facts were known to U.S. Steel and Hatch in 2012. After reviewing Barr's estimates, the EPA identified a number of serious flaws, including a lack of documentation (such as vendor quotes), conflicts with the cost estimates in the Hatch report (upon which the Barr report partially relies), and a significant under-prediction of the NO_X reductions that can be achieved by a low NO_X burner. For example, while the Hatch report estimated direct annual operating costs of $3,000,000, the Barr report estimates such costs will be over $8,000,000 without explaining the discrepancy or justifying the underlying dramatic increases in fuel and electricity costs. *Id.* at 6. Also, Keetac has an uncontrolled emission rate of 5.5 lb NO_X/MMBtu when burning natural gas and 2.1 lb NO_X/MMBtu when burning mixed fuels and uncontrolled annual emissions of 3,455 tons per year. Consequently, the installation of low NO_X burners and compliance with the emission limits in the 2013 FIP will reduce annual NO_X emissions at Keetac by 2,695 tons per year when burning natural gas and 1,002 tons per year when burning mixed fuels. Without explanation, however, the Barr report assumes that the 2014 FIP will only reduce NO_X by 1,121.6 tons per year and 538.2 tons per year, respectively. Correcting for this change alone cuts Barr's cost-effectiveness estimates in half. In sum, because the Metso addendum is speculative and the Barr report is seriously flawed, U.S. Steel's objection would not change the outcome of the EPA's determination of NO_X BART at Keetac.

For all of these reasons, in accordance with Section 307(d)(7)(B) of the CAA, the EPA denies the 2016 petition and denies U.S. Steel's request for an administrative stay.

Dated: JAN 18 2017.

Gina McCarthy,
Administrator.