

NATIONAL PARKS CONSERVATION ASSOCIATION \* SIERRA CLUB

October 30, 2012

**Via Electronic Mail**

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Division of Air Quality  
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Re: Supplemental Evaluation of NO<sub>x</sub> BART Determination for Coal Creek Station Units 1 and 2

Dear Mr. Bachman,

On behalf of National Parks Conservation Association and Sierra Club we respectfully submit the following comments on the North Dakota Department of Health's ("NDDH") Supplemental Evaluation of the Best Available Retrofit Technology ("BART") Determination for emissions of nitrogen oxides ("NO<sub>x</sub>") from Coal Creek Station Units 1 and 2 ("Coal Creek"). Our organizations represent North Dakotans and people throughout the nation that care deeply about protecting the air quality in our national parks and wilderness areas in the Midwest. We support further reductions in emissions and other measures that will improve intra-state, inter-state, and regional visibility as required by the Clean Air Act's ("CAA") regional haze program. At a minimum, we support a NO<sub>x</sub> emissions limit for Coal Creek no higher than EPA's existing, lawfully issued final determination requiring a 30-day rolling average limit of 0.13 lbs/mmbtu.

**I. NORTH DAKOTA'S SUPPLEMENTAL EVALUATION DOES NOT OBTAIN  
EPA'S LAWFUL FEDERAL IMPLEMENTATION PLAN**

North Dakota's latest attempt to support its determination of BART to control NO<sub>x</sub> emissions at Great River Energy's Coal Creek Station does not obviate EPA's Federal Implementation Plan ("FIP"). The submission is an untimely attempt to support the State's unlawful SIP—not a SIP submission that complies with the Act—and thus it cannot supplant EPA's lawfully issued FIP.

**A. EPA Properly Exercised its Authority to Issue a Federal Implementation Plan**

EPA properly exercised its authority under the Clean Air Act to implement a FIP both after it found North Dakota failed to submit a SIP within the time required by law, and after it found that North Dakota's untimely SIP submission did not comply with the Clean Air Act. *See* 42 U.S.C. § 7410(c)(1). North Dakota's obligation to develop a SIP addressing regional haze—including NO<sub>x</sub> BART at Coal Creek—dates back to the 1977 Clean Air Act Amendments. With

those amendments, Congress declared that ridding the nation's parks and wilderness areas of human-caused visible air pollution would henceforth be a "national goal." 42 U.S.C. § 7491(a)(2). Despite Congress's clear intent that EPA and the states immediately begin the process of clearing the haze in the national parks, *see id.* § 7491(a)(3)-(4), the program was long delayed by both EPA and state inaction. *See* 45 Fed. Reg. 80,084 (Dec. 2, 1980) (finalizing the first phase of regional haze regulations—regulations addressing visibility impairment that is "reasonably attributable" to a source or group of sources—over a year later than Congress required under 42 U.S.C. § 7491(a)(4)); 64 Fed. Reg. 35,714 (July 1, 1999) (finalizing the second phase of regional haze regulations over 20 years after the Congressional deadline). After the delays in implementing this important program, States were required to submit regional haze SIPs by December 17, 2007. 70 Fed. Reg. 39,104, 39,156 (July 6, 2005); *see also* 40 C.F.R. §§ 51.308(b), 51.309(c).

North Dakota failed to meet the December 17, 2007 deadline, and over one year later, EPA made a formal finding of North Dakota's failure to submit the required regional haze plan. *See* 74 Fed. Reg. 2,392 (Jan. 15, 2009). This formal finding triggered EPA's duty to issue a FIP within two years, unless North Dakota corrected the deficiency and EPA approved the plan before issuing a FIP. 42 U.S.C. § 7410(c)(1).

While the time for EPA to issue a FIP was running, North Dakota approved a final regional haze SIP and submitted it for EPA review on March 3, 2010. 76 Fed. Reg. 58,570, 58,579 (Sept. 21, 2011). After reviewing the SIP for compliance with the Clean Air Act, EPA proposed to find that portions of North Dakota's plan—including North Dakota's NO<sub>x</sub> BART determination for Coal Creek—were legally inadequate. *Id.* at 58,603-04 (proposing to disapprove North Dakota's NO<sub>x</sub> BART determination for Coal Creek "[b]ecause of the significant error underlying the State's cost analysis"). As a result, EPA proposed to exercise its authority to issue a FIP that would properly control NO<sub>x</sub> emissions at Coal Creek. *Id.* at 58,619-23 (proposing a FIP finding that NO<sub>x</sub> BART at Coal Creek was an emission limit of 0.12 lb/MMBtu based on installation and operation of selective non-catalytic reduction, separated overfire air, and low NO<sub>x</sub> burners). On April 6, 2012, EPA finalized its finding that North Dakota's NO<sub>x</sub> BART determination for Coal Creek was legally inadequate, which provided separate grounds for EPA to issue a FIP. *See* 42 U.S.C. § 7410(c)(1). EPA's FIP will improve visibility more than the State's BART determination for Coal Creek. 77 Fed. Reg. 20,894, 20,896-98 (Apr. 6, 2012) (finalizing a slightly revised FIP under which NO<sub>x</sub> BART for Coal Creek is 0.13 lb/MMBtu).

North Dakota was given ample time to submit a SIP that complied with the Clean Air Act, yet at each turn failed to do so. Consistent with the Clean Air Act, both North Dakota's failure to submit a SIP and North Dakota's later submission of a non-compliant SIP authorizes EPA to finalize a FIP bringing the state into compliance. 42 U.S.C. § 7410(c)(1)(A)-(B) (compelling EPA to promulgate a FIP within two years of determining that the "plan revision submitted by the State does not satisfy the minimum criteria established under subsection (k)(1)(A) of this section," or after it "disapproves a State implementation plan submission in whole or in part"). EPA need not have acted on North Dakota's SIP submission before promulgating a FIP, as the State's failure to submit a regional haze plan by the December 17, 2007 deadline authorized EPA to issue a FIP. *See* 42 U.S.C. § 7410(c)(1); *see also* 77 Fed. Reg.

at 20,906 (explaining that EPA would have been authorized to promulgate a regional haze FIP even without taking final action on North Dakota's SIP, given that EPA had already found that the state failed to timely submit a SIP (citing *WildEarth Guardians v. Jackson*, No. 11-cv-00001-CMA-MEH, 2011 WL 4485974, at \*7 n.8 (D. Colo. Sept. 27, 2011)); Brief of Respondent at 24, *Oklahoma v. EPA*, Nos. 12-9526, 9527 (10th Cir. Aug. 14, 2012); *Coal. for Clean Air v. S. Cal. Edison Co.*, 971 F.2d 219, 223 (9th Cir. 1992).

Thus, EPA properly exercised its authority to promulgate a FIP including NO<sub>x</sub> BART determinations of Coal Creek. The FIP corrects deficiencies in North Dakota's untimely SIP submission, and ensures that NO<sub>x</sub> emissions from Coal Creek are controlled, protecting nearby Class I areas.

#### B. North Dakota's Untimely Supplemental Evaluation Does Not Supplant the FIP

Because North Dakota's supplemental evaluation of the NO<sub>x</sub> BART determination for Coal Creek is an untimely attempt to bolster its unlawful SIP, it does not negate EPA's FIP. At the time it issued the FIP, EPA gave North Dakota the opportunity to issue a SIP revision that complied with the Clean Air Act. 77 Fed. Reg. at 20,897 (explaining that "North Dakota always has the discretion to revise its SIP and submit the revision to [EPA]. Should such a revision meet CAA requirements, [EPA] would replace [its] FIP with North Dakota's SIP revision."). Instead of re-submitting a SIP that complies with the Clean Air Act, North Dakota chose to provide a supplemental evaluation defending its prior BART determination. *See* North Dakota Department of Health, Division of Air Quality, Supplemental Evaluation of NO<sub>x</sub> BART Determination for Coal Creek Station Units 1 and 2, 17 (Sept. 2012) ("reaffirm[ing] its decision that NO<sub>x</sub> BART for GRE CCS [Coal Creek] is represented by combustion controls with a BART limit of 0.17 lb/106 Btu on a 30-day rolling average basis"). The time for the State to defend its prior NO<sub>x</sub> BART determination for Coal Creek has passed.

Public comments on EPA's proposed disapproval of the State's NO<sub>x</sub> BART determination for Coal Creek and the resultant FIP were due by November 21, 2011. 76 Fed. Reg. 58,570. North Dakota's Supplemental Evaluation of the NO<sub>x</sub> BART determination for Coal Creek, dated September 2012, clearly comes too late. If the State's SIP depended on this analysis, Great River Energy and the State should have completed the required analysis while the State was putting together its SIP. *See* 77 Fed. Reg. at 20,918 (explaining that if Great River Energy believed that more site-specific information relevant to cost was needed to determine BART for Coal Creek, it should have provided that information within the time for the State to incorporate it into its SIP). At the latest, any necessary evaluation should have been completed within the time for public comments. Because North Dakota completed and submitted its supplemental evaluation well after the required time for public comments, the supplemental analysis has no bearing on the legality of EPA's decision to disapprove the SIP and issue a FIP. Instead, to the extent that North Dakota wants to defend its SIP, North Dakota is limited to bringing a challenge in federal court based on the evidence that was before the agency at the time of its final action, a remedy the State is actively pursuing. *See, e.g.*, Brief of Petitioner in No. 12-1844, State of North Dakota, No. 12-1844 (8th Cir. Oct. 5, 2012) (challenging, *inter alia*, EPA's disapproval of North Dakota's NO<sub>x</sub> BART determination for Coal Creek and promulgation of a FIP); *see also* Brief of Petitioner Great River Energy, No. 12-1961 (8th Cir. Oct. 4, 2012) (same).

Given its limited scope, North Dakota's supplemental evaluation is not properly interpreted as a SIP submission that meets the requirements of the Clean Air Act and warrants EPA review. *See* 77 Fed. Reg. at 20,897 (inviting North Dakota to re-submit a SIP that complies with the Act). As its name suggests, the supplemental evaluation provides further support for why the State believes its original submission was lawful. *See, e.g.*, Supplemental Evaluation at 17. Yet as discussed above, this further support is untimely and has no bearing on EPA's prior rejection of North Dakota's NO<sub>x</sub> BART determinations for Coal Creek. Moreover, as discussed in more detail below, because the supplemental evaluation does not demonstrate that North Dakota's NO<sub>x</sub> BART determination for Coal Creek meets the Clean Air Act's standards, it does not and cannot displace EPA's FIP. EPA need not overturn its FIP in light of unpersuasive arguments that reaffirm a decision EPA has already found does not comply with the Clean Air Act.

## II. NORTH DAKOTA'S SUPPLEMENTAL ANALYSIS IS INTERNALLY INCONSISTENT, TECHNICALLY FLAWED, AND LEGALLY DEFICIENT

Even if North Dakota's supplemental evaluation warranted EPA review, it contains significant flaws and internal inconsistencies such that its conclusion should not be considered. North Dakota fails to consider a superior technology, selective catalytic reduction ("SCR"). Its arguments against EPA's required control, selective non-catalytic reduction ("SNCR"), are flawed and often baseless. Its rejection of SNCR is inconsistent with other BART determinations proposed by the State. Furthermore, North Dakota failed to consider the cumulative impacts to all affected Class I areas, including those outside of North Dakota. Finally, all of these elements must be considered in light of the overall goal of eliminating visibility impairment in Class I areas; North Dakota does not provide such consideration. For these reasons, discussed in depth below, North Dakota's supplemental information, even if considered by EPA, does not warrant revising EPA's existing NO<sub>x</sub> BART determination for Coal Creek.

### A. North Dakota's Failure to Consider SCR Is Inappropriate

As noted above, North Dakota's submission is too limited in its scope to be properly interpreted as a SIP submission warranting EPA review. One missing element is an appropriate reconsideration of SCR. As discussed in our November 21, 2011 comments to EPA, we believe that SCR is both technically and economically feasible in the context of BART, particularly in light of Johnson Matthey's more recent offer of performance guarantees for low-dust and tail-end SCR used on plants firing North Dakota lignite. *See* Letter from Johnson Matthey to EPA, Docket ID No. EPA-R08-OAR-2010-0406-0322, dated February 27, 2012 (offering "SCR catalyst designs with reasonable operating lifetime guarantees for service in a low-dust or tail-end SCR configuration"). Regardless of the BART determination, we encourage North Dakota to move forward with the pilot testing described in its December 20, 2011 letter to EPA.

### B. North Dakota's Evaluation of Non-Visibility Issues Regarding SNCR Is Flawed

North Dakota's supplemental evaluation includes additional information about SNCR, focused on "five major issues which significantly affect the BART determination" at Coal Creek.

Supplemental Evaluation at 3. As described in the Expert Report of Dr. Ranajit (Ron) Sahu, attached as Exhibit 1, this additional information is seriously flawed and lends itself to overestimating the costs associated with the use of SNCR while underestimating the benefits.

First, the baseline rate used appears to be underestimated. Underestimating the baseline can lead to lower estimated benefits and higher cost effectiveness values.

Second, North Dakota uses a lower control efficiency for SNCR than did EPA, and justifies this by claiming that the estimate is site specific. However, there is little or no support for the use of this rate, which appears to be neither site specific nor informed about state-of-the-art SNCR technology which increases control efficiency while minimizing ammonia slip.

Third, the capital cost estimates for SNCR are inflated and are not supported by underlying calculations or site specific information.

Finally, the potential for lost ash sales is exaggerated given SNCR technology designed to minimize ammonia slip and/or mitigate ammonia on fly ash. Nonetheless, North Dakota's sensitivity analysis shows that even with inflated costs, underestimated reductions, and the state's relatively low cost-effectiveness thresholds (average and incremental), SNCR + LNC3 is basically cost effective at or above 30% lost ash sales.<sup>1</sup>

Thus, North Dakota's supplemental evaluation provides no basis for EPA to change its existing BART determination for Coal Creek.

C. North Dakota's Rejection of SNCR Is Premised on an Internally Inconsistent and Arbitrary Analysis of Incremental Visibility Improvement

After discussion of the technical issues mentioned above, North Dakota based its BART determination and rejection of SNCR primarily on concerns that SNCR does not provide sufficient incremental visibility improvement relative to the cost. This basis for rejecting SNCR at Coal Creek is internally inconsistent and, as such, EPA need not reverse its. North Dakota's own BART determination for Stanton Station will achieve similar incremental visibility improvement for a similar cost as would be achieved under EPA's BART determination for Coal Creek. Given this internal inconsistency, North Dakota's supplemental evaluation is arbitrary and does not support reversing EPA's FIP.

In its proposed rule, EPA noted that installing SNCR at Coal Creek would cost approximately \$2,500 per ton of NO<sub>x</sub> emissions reduced (which is a conservative estimate, since the cost could be lower if fly ash contamination could be mitigated). 76 Fed. Reg. 58,570-58,623 (Sept. 21, 2011). The State of North Dakota itself selected SNCR as BART for Stanton Station, based on average cost effectiveness values ranging from \$3,052 to \$3,778 per ton of NO<sub>x</sub> emissions reduced. *Id.* Even if one uses the higher average cost effectiveness for SNCR at coal Creek that the State proposes in its Supplemental Evaluation – \$3,305 per ton, based on a 30% loss in fly ash sales – the average cost effectiveness is still within the range that the State

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<sup>1</sup> Moreover, it is possible that future ash sales will be curtailed for separate reasons, e.g., federal regulation of coal ash.

approved for Stanton Station. It is also within the range that the State has established as reasonable. Supplemental Evaluation at 15 (stating that any cost effectiveness value below \$3,650 per ton, in 2006 dollars, or \$4,100 per ton, in 2011 dollars, would be deemed reasonable).

The same is true for visibility improvement; the incremental visibility improvement from SNCR at Coal Creek is similar to the incremental visibility improvement from SNCR at Stanton Station. The State estimated that installing SNCR at Stanton Station would create an incremental improvement in visibility of 0.135 deciviews or less. 76 Fed. Reg. at 58,623. Assuming for the sake of argument that the State's analysis is correct, the State calculates that SNCR at Coal Creek will yield a maximum visibility improvement of 0.106 deciviews. Supplemental Evaluation at 15. This is roughly the same incremental visibility improvement that the State deemed large enough to justify selecting SNCR as BART for Stanton Station.

In short, using either EPA's or the State of North Dakota's figures, the average cost effectiveness and the incremental visibility improvement from SNCR at Coal Creek is virtually the same as the average cost effectiveness and incremental visibility improvement from SNCR at Stanton Station. Given the similarity in these values, and given that the State's analysis placed great emphasis on cost and visibility improvement, it was arbitrary for North Dakota to approve SNCR as BART for Stanton Station but reject it for Coal Creek. EPA thus need not disturb its FIP in light of the State merely reiterating its internally inconsistent and arbitrary BART determination for Coal Creek.

D. The State Underestimated Visibility Improvement

1. *The State underestimated visibility improvement by failing to consider cumulative visibility improvement*

In the Supplemental Evaluation, the State understates the visibility improvement that would result from installing SNCR at Coal Creek. North Dakota's BART analysis depends in large part on the expected incremental visibility improvement from installing controls at Coal Creek at a single Class I area: Theodore Roosevelt National Park, North Unit. This expected visibility improvement (0.106 deciviews) would increase if the State considered the cumulative impact on all affected Class I areas, as it is authorized to do under the BART Guidelines.

Emissions from Coal Creek impact both Class I areas located in North Dakota, Theodore Roosevelt National Park and Lostwood Wilderness Area. While the State acknowledges this, and includes data in the Supplemental Evaluation for visibility improvement at both TRNP and Lostwood, the State does not add the visibility improvement that would occur at these two areas. Instead, the State focuses on visibility improvement at only the most affected Class I area, TRNP. Furthermore, as discussed below, no impacts to Class I areas outside of North Dakota were modeled, even at Medicine Lake Wilderness Area in Montana, which is within the typically modeled 300 km distance from the plant. It is likely that emissions from Coal Creek impact additional Class I areas outside of North Dakota. These impacts have not been considered.

Using a visibility improvement value from only a single Class I area skews the analysis in favor of weaker controls, since visibility improvement will always be lower at a single Class I

area than it will be when summed across all affected Class I areas. EPA has demonstrated this principle in the regional haze plan for New York, stating:

In making BART determinations, EPA also recommends the consideration of cumulative impacts and improvements that could occur at all the Class I areas a particular facility might impact. EPA's analysis of the cumulative visibility improvements at all 7 Class I areas justifies a more stringent BART emission limit.

77 Fed. Reg. 24,794, 24,814 (Apr. 25, 2012).

Likewise, EPA's BART Guidelines authorize the use of a cumulative visibility analysis. 40 C.F.R. Part 51, Appendix Y § (III)(A)(1) (authorizing states to consider the cumulative visibility impact of sources when setting a contribution threshold), § (III)(A)(2) (authorizing states to model the cumulative visibility impact of sources to show that no source is subject to BART). Based on these guidelines, and the fact that a more limited analysis could favor weaker controls, several EPA regions have considered the cumulative visibility improvement from pollution controls to be required as BART. *See* 77 Fed. Reg. 42,834, 42,857-58, 42,860-61, 42,863-64 (July 20, 2012) (Navajo Generating Station in Arizona); 77 Fed. Reg. 30,454, 30,462 (May 23, 2012) (Boardman Power Plant in Oregon); 77 Fed. Reg. at 24,814 (New York); 76 Fed. Reg. 491, 502, 503 (Jan. 5, 2011) (San Juan Generating Station in New Mexico); 75 Fed. Reg. 64,221, 64,230 (October 19, 2010) (Four Corners Power Plant in Arizona).

The State's failure to consider the full visibility improvement from SNCR is a significant flaw given that the State considered all alleged costs of the control. The State looked at the full costs of SNCR, including purported costs in addition to the direct costs of installing and operating controls – such as the indirect costs of any lost fly ash sales. Yet the State did not consider all of the benefits, namely, the visibility improvement, since the State focused on visibility improvement at a single Class I area, rather than the visibility improvement that would result at all affected Class I areas. In short, the State considered all of the costs, both direct and indirect, without considering all of the visibility benefits. By failing to consider the cumulative visibility improvement from controls at Coal Creek, the State biased its BART analysis in favor of weaker controls. For this reason alone, the State's BART analysis is deficient, and EPA properly disapproved it.

2. *The State underestimated visibility improvement by considering a narrow geographic range of impacted areas and by not considering more than the 98% of impacts*

As noted above, North Dakota has arbitrarily failed to model visibility benefits and impacts at all affected Class I areas, namely any that are outside of North Dakota. Historically, modeling has been limited to 300 km from the source not because the impacts end at that point, but because of the perceived reliability of the model past that point. Even within this historical assumption, North Dakota failed to document and consider impacts to Medicine Lake Wilderness Area in Montana, which is roughly 270 km from Coal Creek.

Beyond 300 km, the historical assumption that CALPUFF modeling could not reliably document impacts no longer holds; and even if it did, the impacts should at a minimum be considered qualitatively rather than ignored. EPA recently responded to a similar comment calling for review of impacts beyond 300 km; for the first time, EPA supported its truncated modeling by referencing a now-discredited 1998 report regarding CALPUFF performance. *See* Montana Regional Haze Federal Implementation Plan, 77 Fed. Reg. 57,864 (Sep. 18, 2012).

In its response to public comments on the Montana FIP, EPA stated, “[t]he Interagency Workgroup on Air Quality Modeling (IWAQM) Phase 2 report (EPA, 1998) reviewed model performance evaluations of CALPUFF as a function of distance from the source and concluded that: ...[u]se of CALPUFF for characterizing transport beyond 200 to 300 km should be done cautiously with an awareness of the likely problems involved.” 77 Fed. Reg. at 57,867-68. EPA then concludes, “[t]herefore, given that the IWAQM guidance provides for the use of the CALPUFF model at receptor distances of up to 200 to 300 km, and given that EPA has already addressed uncertainty in the CALPUFF model, we believe it is reasonable to use CALPUFF to evaluate visibility impacts up to 300 km.” *Id.* at 57,868.

We agree that CALPUFF is reliable at distances of 300 km. However, EPA’s use of the IWAQM Phase 2 report to support its decision to exclude modeling at distances beyond 300 km, *id.* at 57,868-69, is arbitrary. First, changes to CALPUFF since 1998 may correct problems identified in the IWAQM Phase 2 report with modeling accuracy in the 200-1,000 km range. Second, a more recent study prepared for EPA called into question the conclusions of the IWAQM Phase 2 report upon which EPA relies. *See* Long Range Transport Models Using Tracer Field Experiment Data (May 2012) (EPA Contract No: EP-D-07-102, Work Assignment No: 4-06), attached hereto as Exhibit 2.<sup>2</sup> The May 2012 study concluded that “The inability of most (~90%) of the current study’s CALPUFF sensitivity tests to reproduce the 1998 EPA study tracer test residence time on the 600 km receptor arc is a cause for concern.” *Id.* at 11. Not only were the authors of the May 2012 study unable to reproduce the 1998 study’s findings that CALPUFF overestimated pollutant concentrations at distances of 600 km, the 2012 study concluded that CALPUFF actually *underestimates* average pollutant concentrations at 600 km. *Id.* at 10.

Accordingly, reliance on CALPUFF at long distances would result in conservative estimates of visibility impacts. It is not appropriate to assume that such impacts are non-existent. North Dakota’s failure to model and consider visibility impacts at all affected Class I areas – including those beyond 300 km, such as South Dakota’s Badlands and Wind Cave national parks, or Montana’s UL Bend Wilderness Area, all of which are between 300 and 600 km from Coal Creek – is not supported. Furthermore, North Dakota repeatedly asserts, without support, that CALPUFF overpredicts visibility impacts. North Dakota’s assertions are contradicted by the May 2012 study results. To the extent that North Dakota relies on this bias in arriving at its BART determination, it should be revisited if not reversed by considering the maximum predicted impact rather than the 98<sup>th</sup> percentile.

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<sup>2</sup> Also available on EPA’s website at [http://www.epa.gov/scram001/dispersion\\_prefrec.htm](http://www.epa.gov/scram001/dispersion_prefrec.htm).

E. North Dakota's Analysis Unlawfully Fails To Consider Visibility Improvement in Relation to the Statutory Goal of Eliminating Visibility Impairment

North Dakota unlawfully considered visibility improvement in a vacuum, untethered from the statutory goal of eliminating visibility impairment at the Class I areas. Instead of evaluating whether the visibility improvement would help it reach the national goal, the State simply dismissed additional controls as not providing enough improvement. The State provided no criteria for judging whether a given amount of visibility improvement is enough, or in the State's terms, too "small." Indeed, the State simply asserted:

the Department has chosen to weight the visibility impact heavily in this determination. . . Therefore, the Department gave greater consideration to the fact that the use of the more expensive SNCR at CCS provides only a small amount of improvement in visibility results. Accordingly, the use of SNCR at CCS is not warranted based on the small amount of improvement in visibility that could result from its use.

Supplemental Evaluation at 17.

Since BART is one element of a regional haze plan that must be designed to return Class I areas to natural visibility conditions, the visibility improvement from potential BART controls should be weighed in light of the amount of visibility improvement needed to reach the statutory goal of natural visibility. The presumptive goal established by EPA is to reach natural visibility by 2064. 40 C.F.R. § 51.308(d)(1)(i),(ii). To attain natural visibility in 2064 would require improving visibility 0.17 deciviews every year, for Theodore Roosevelt National Park, and 0.19 deciviews per year for Lostwood. 76 Fed. Reg. at 58,581.

North Dakota gives great weight to its claim that the maximum incremental visibility improvement from SNCR is 0.106 deciviews. But this amount represents nearly the entire improvement needed in a single year to be on a path toward attaining natural visibility in 2064. So even if it is appropriate to consider only the visibility improvement at a single Class I area (which it is not) the visibility improvement from SNCR is substantial when it is considered in light of the improvement needed to meet the uniform rate of progress at North Dakota's Class I areas.

This conclusion is bolstered by the fact that North Dakota does not purport to meet the uniform rate of progress and attain natural visibility in 2064, but rather proposes to reach natural visibility in 156 years at Theodore Roosevelt National Park and 232 years at Lostwood. 76 Fed. Reg. At 58,628. Under these scenarios, North Dakota would achieve far less visibility improvement than the 0.17 and 0.19 deciviews per year that would be necessary to meet the uniform rate of progress. 76 Fed. Reg. At 58,581. Thus, an incremental visibility improvement of 0.106 dv is even larger and more significant extent when considered in light of the yearly visibility improvement North Dakota would make under its reasonable progress goals. This incremental visibility improvement is significant even when the average is considered in addition to the maximum.

In sum, North Dakota failed to supply a reasoned explanation for its conclusion that the visibility improvement from SNCR is “small.” Since North Dakota’s BART determination was based primarily on a consideration of visibility improvement, this failure to explain the principal rationale renders North Dakota’s determination arbitrary and capricious. Moreover, when the visibility improvement from SNCR is considered in light of the statutory goal of making reasonable progress toward natural visibility, the visibility improvement from SNCR is significant. Thus, EPA properly disapproved the State’s proposed BART determination for Coal Creek.

## CONCLUSION

EPA need not review the Supplemental Evaluation of the NO<sub>x</sub> BART determination for Coal Creek because the Evaluation is untimely and is not a SIP submission. Even if EPA were to consider the Supplemental Evaluation, it provides no support for revising the NO<sub>x</sub> BART determination that EPA adopted in its FIP. The Clean Air Act provides EPA with both the authority and the obligation to issue a FIP containing a NO<sub>x</sub> BART determination for Coal Creek. Moreover, EPA properly determined that NO<sub>x</sub> BART for Coal Creek Units 1 and 2 should, at a minimum, be an emissions limit reflecting the operation of SNCR.

Thank you for the opportunity to comment on NDDH’s proposed Supplemental Evaluation of NO<sub>x</sub> BART Determination for Coal Creek Station Units 1 and 2.

Sincerely,

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