



United States
Department of
Agriculture

Forest
Service

Superior
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Forest

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File Code: 2580-2

Date: March 5, 2008

Mr. David Thornton
Assistant Commissioner
Minnesota Pollution Control Agency
520 Lafayette Road
St. Paul, MN 55155

Dear Mr. Thornton:

On February 7, 2008, the State of Minnesota submitted a draft implementation plan describing your proposal to improve air quality regional haze impacts at mandatory Class I areas across your region. We appreciate the opportunity to work closely with the State through the initial evaluation, development, and subsequent review of this plan. Cooperative efforts such as these ensure that together we will continue to make progress toward the Clean Air Act's goal of natural visibility conditions at our Class I wilderness areas and parks.

This letter acknowledges that the USDA - Forest Service has received and conducted a substantive review of your proposed Regional Haze Rule implementation plan. Please note, however, that only the U.S. Environmental Protection Agency (EPA) can make a final determination about the document's completeness. Therefore, only the EPA has the ability to approve the document. Participation by the Forest Service in the State of Minnesota's administrative process does not waive any legal defenses or sovereignty rights it may have under the laws of the United States, including the Clean Air Act and its implementing regulations.

As outlined in a letter to the State dated September 29, 2006, our review focused on eight basic content areas which reflect priorities for the Federal Land Manager agencies; we have enclosed comments to this letter associated with these priorities. We look forward to your response required by 40 CFR 51.308(i)(3). For further information, please contact Trent Wickman at (218) 626-4372.

Again, we appreciate the opportunity to work closely with the State of Minnesota. The Forest Service compliments you on your hard work and dedication to significant improvement in our nation's air quality values and visibility

Sincerely,

/s/ James W. Sanders
JAMES W. SANDERS
Forest Supervisor



cc: Bruce Polkowsky
Chris Holbeck
Tim Allen
Matt Rau

Technical Comments on Minnesota Regional Haze State Implementation Plan

We would like to begin by commending Minnesota on the quality and depth of their Regional Haze State Implementation Plan (SIP). We believe that it will serve as an excellent roadmap to improve visibility in the Minnesota Class I Areas and hopefully also serve as a model for other states to follow that have yet to submit their plans.

We have some comments on the plan that are included below.

Baseline Visibility Conditions

We support the inclusion of the high-deciview, incomplete, sample days in the baseline because it is a reasonable way to include valuable information that falls outside the standard EPA criteria.

Best Available Control Technology (BART) - Taconite

We conveyed our comments on the BART determinations for the taconite facilities in a letter to Mary Jean Fenske, dated April 10, 2007. We have attached that letter to this one and would like to incorporate those comments by reference.

With respect to the United Taconite facility, we feel the information included in the SIP shows that the installation of a new recirculating scrubber to control sulfur dioxide at this facility is BART. We feel the BART determination for this facility for sulfur dioxide should be made with this SIP and not delayed. We hope that United Taconite's delays in sending requested information does not delay MPCA's BART determination for their facility. We note that United Taconite uses a very high sulfur fuel and its current sulfur dioxide emissions are far above the rest of the industry.

<i>Plant</i>	<i>2002 ton SO₂/MMLT</i>
US Steel, Keewatin Taconite	131
Hibbing Taconite	77
US Steel, Minntac	133
United Taconite	749
Mittal Steel	59
Northshore Mining Co.	16

Another possible alternative is to look at the other taconite lines and set a sulfur dioxide standard for United based on the level of performance in the industry.

We believe that an argument can be made that one or more post-combustion control options for nitrogen oxides are BART for the taconite industry. In spite of this, we are willing to delay the determination of proper nitrogen oxides controls to allow the industry to trial nitrogen oxides control options through 2011 under the long term strategy as long as there is a firm deadline in the SIP for the industry to complete the studies. We also believe the content of the control studies should be more clearly specified. For example we'd expect these studies to include on-site, slip-stream and other pilot-scale studies. In

addition, we would prefer that interim deadlines also be included in the SIP to ensure that the studies stay on track.

Besides studying nitrogen oxide controls, as stated in our earlier BART letter, under the long term strategy we feel it is worth having the taconite industry also investigate whether any physical improvements can be made to the existing particulate scrubbers to improve the transfer of sulfur from the gas phase to the liquid phase by modifying or redesigning the internal components of the scrubbers. A number of these options are mentioned in the US EPA BART guidelines. Many relate to improving the water distribution within the scrubber using trays, rings, or improved spray headers/nozzles. This is in line with the general BART determination for sulfur dioxide made on page 62, that the existing particulate scrubbers be “optimized” for sulfur dioxide removal.

We are concerned with the level of the sulfur dioxide limits proposed for the taconite facilities that burn low sulfur fuels. For example, for Hibbing Taconite the proposed limit is about 20 percent above the highest value ever recorded. The difference is similar for the non-coal burning lines at Minntac. This seems to be a large cushion considering that the facilities were not likely focused on optimizing for sulfur dioxide control at the time the tests were done. We would hope the BART limits would encourage the facilities to operate their scrubbers at the best possible performance level – again, in line with the BART determination to optimize these units for sulfur dioxide removal.

Continuous Emissions Monitors (CEMs) at the Taconite Plants

On page 62 of chapter nine a statement is made that CEMs “... would apply to NO_x emissions at the facilities burning natural gas and to SO₂ emissions at facilities burning high sulfur fuels.” We don’t understand why the NO_x CEMs are only being required at natural gas fired furnaces. Those furnaces burning fuels other than natural gas will also investigate nitrogen oxide control strategies and therefore will need the CEMs.

We understand from page 62 of the SIP that it is Minnesota’s intent to require the installation of continuous emission monitoring systems (CEMs) at the taconite plants by November 30, 2008. We are aware of only two taconite plants to date that have agreed to install them and are concerned that the time frame in the SIP may not be met. We would also like to see a deadline associated with the requirement on page 62 for the taconite plants to “...provide the MPCA with data from these new emission methods.” Similarly we believe a deadline should be associated with the MPCA’s intent to establish the BART limits and include those in each facility’s Title V operating permit to clarify when these tasks will be completed.

We would like to see more specifics as to what specific requirements a “comparable alternative emission measurement method” would have to meet. For example, will you use the criteria in the Federal New Source Performance Standards?

Best Available Control Technology – Electrical Generating Units

Since Minnesota Power has petitioned EPA to remove Minnesota from the Clean Air Interstate Rule (CAIR) we believe that all BART electrical generating units should have

unit-specific BART limits determined with this SIP so that there is no delay in implementing BART should a determination to remove Minnesota from CAIR come at a later date. One facility for which this is a particular concern is Northshore's Power Boiler #2. No BART-like nitrogen oxides or sulfur dioxide unit-specific limits were identified in the SIP. We believe it is reasonable that the permit limits on its neighbor, Taconite Harbor, be considered as one potential source of BART emission limits.

New Sources

We applaud the State for including some of the new Iron Range facilities recently permitted, or in the permitting process, in their 2018 modeling. As you know, a number of additional sources are now in the planning stage. All of these new facilities will put pressure on the Northeastern Minnesota emissions targets and likely require further emission reductions from existing industrial sources in the area.

Reasonable Progress

To help clarify when the following will take place, we would like to see deadlines associated with the following tasks and intermediate deadlines also added, as appropriate:

From Chapter 10, Page 84:

- “MPCA will conduct a BART-like review of the taconite facilities’ reports on control strategies and pollution prevention options investigated by the taconite facilities. If it appears that other (non-taconite) facilities will need to implement control strategies in order for the emission reduction target to be met, the MPCA will do a preliminary cost analysis of feasible pollution prevention and control options to evaluate whether any further analysis by those facilities is warranted.”
- “If, after all voluntary EGU reductions and reductions at the taconite plants have occurred, additional emission reductions are needed to meet the target, the MPCA would set limits for other sources with reasonable control strategies available. Minnesota would implement this requirement for additional emission reduction measures through a “state retrofit” requirement that would ultimately apply an emission limit to each facility where additional controls have been found to be reasonable. This limit could be set through a state rule or through amendments to each facility’s Title V air emission permit, which would be submitted in the Five Year SIP Assessment.”

From reviewing Table 11.1 it would appear that the tasks noted above, and those in the table, either are needed to be completed to feed into subsequent tasks for the Five Year report, or themselves are required to be in the Five Year report. To aid in understanding when these tasks will be completed and how they interrelate, please add a column to this table with deadlines and also break down some of the larger tasks into intermediate tasks, also with associated deadlines. We note that the five year report will be expected by December 17, 2012.

We believe the 2018 target for Northeastern Minnesota should continue past 2018 unless it is modified by the next 10 year SIP done in 2018. We believe this point should be clarified in the SIP.

We agree that under the NE Minnesota Plan any additional emission reductions necessary to meet the target would be specified in the Five Year report (which is due on December 17, 2012). We also believe that if at any time between now and 2012 the target appeared to be threatened, it would be prudent for the MPCA to begin the work of assessing control strategies so that a final determination of applicable controls can be included in the Five Year report.

We would like to clarify that our understanding of the paragraph on the bottom of page 84, starting, "If either target..." applies only to the situation where the target in 2018 is projected not to be met. On the contrary, if the 2012 target is not going to be met we'd expect that the Five Year report would include the controls which had already been identified by the MPCA.

We are confused by the following on page 97 – "MPCA will then undertake a BART-like review of these reports and control strategies and evaluate them based on the statutory factors and the status of progress towards the emission target. The five year SIP report will *likely* include the results of the analysis, a determination of any control strategies or pollution prevention projects that are reasonable at each of the taconite facilities, and enforceable mechanisms for requiring application of these measures." The inclusion of the word "likely" makes the timing of these tasks unclear. A table with deadlines for the following would be helpful:

- the final report from the taconite plants on additional control technologies investigated for sulfur dioxide and nitrogen oxides
- the MPCA's BART-like review of the report, and
- the installation and operation of control technologies deemed to be reasonable

Since, according to page 84 of the SIP, the investigation of control technologies will happen from 2008 – 2011, we feel the final report should be required to be submitted by the end of 2011 and the MPCA could then have its BART-like review and enforceable mechanisms done in time for the 2012 Five Year report which is due at the end of 2012. It is important that the BART-like review be completed by the Five Year report so that the assessment of the likelihood of attainment of the 2018 targets can be made with full knowledge of the potential for additional controls in the taconite industry (see discussion on page 84). We suggest that those controls identified as reasonable would then be required to be installed and operational within two years or by the end of 2014. We assume this whole process would be open and the MPCA would share relevant documents with the FLMs and the public and also accept and consider their comments.

Smoke Management

We are concerned with the level of detail on the Smoke Management Plan (SMP) in the SIP. The SMP is meant to be a living document that can be easily changed as conditions dictate. We are concerned that the level of detail on the SMP in the SIP creates an

unnecessary administrative hurdle to making future changes to improve the SMP. We have identified, via phone, the language that we feel is unnecessary for the purposes of the SIP on pages 87, 89 and 90.

Interstate Consultation

We hope EPA will facilitate future discussions between Minnesota and its neighboring states. We have submitted comments on Missouri's and Iowa's SIPs that are substantially in line with Minnesota, especially with regard to the issue of the existence of cost effective controls in those states and the "fair share" responsibilities those states have as contributors to visibility impairment in the BWCAW.