



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590



REPLY TO THE ATTENTION OF:

Ms. Kristin Hart
Chief
Permits and Stationary Source Modeling Section
Bureau of Air Management
Wisconsin Department of Natural Resources
PO Box 7921
Madison, Wisconsin 53707-7921

Dear Ms. Hart:

The U.S. Environmental Protection Agency has the following comments on the Wisconsin Department of Natural Resources' (WDNR) draft revision to the Prevention of Significant Deterioration (PSD) permit for Waupaca Foundry, Inc (#11-POY-184). The draft permit authorizes the facility to switch from using coke with a 0.6% sulfur content to coke with a sulfur content of 0.7% due to limited availability of the 0.6% sulfur coke. As this is a revision to the facility's existing Best Available Control Technology (BACT) limit for Sulfur Dioxide (SO₂), the facility is required to go through the PSD process to change the limit.

In order to ensure that the project meets Federal Clean Air Act requirements, that the permit will provide necessary information so that the basis for the permit decision is transparent and readily accessible to the public, and that the permit record provides adequate support for the decision, EPA has the following comments:

1. The draft permit authorizes Waupaca Foundry, Inc. Plant 1 to increase its BACT limit to account for diminishing supplies of coke with a sulfur content of 0.6% or less by weight. However, WDNR provides no justification or verification that the supplies of this lowest sulfur coke are indeed diminishing. It is also unclear from the Preliminary Determination document whether this BACT revision is being undertaken because diminishing supplies of the lowest sulfur coke have increased prices, making it no longer cost effective, or whether it is actually technically infeasible to utilize coke with a 0.6% sulfur content. Prior to any attempt to revise or readjust an existing BACT limit, the source has an initial obligation to comply with the permit. At a minimum the source is required to investigate and report to the permitting agency all available options to keep emissions at the permitted level.¹ As written, the Preliminary Determination document does not provide any evidence that the source verified with multiple suppliers that the supply of low sulfur coke would no longer be available. Additionally, the permittee should continue to be required to follow its current BACT and utilize the lowest sulfur coke until a time when it becomes unavailable.

¹ "Request for Determination on Best Available Control Technology Issues—Ogden Martin Tulsa Municipal Waste Incinerator Facility" from Gary McCutchen to J. David Sullivan. November 19, 1987.
<http://www.epa.gov/region07/air/nsr/nsrmemos/monitor.pdf>

2. WDNR determined that more information was required in order to determine a numerical BACT limit. As such, the permit requires the facility to perform testing and submit the results of the testing within 60 days after the end of the BACT emissions study. WDNR will then use these results to make a final decision on the SO₂ BACT pounds per ton metal emission limit. However, it is unclear from the permit conditions and the Preliminary Determination document how WDNR intends to incorporate this new limit into the permit and if the public will have an opportunity to comment on the final limit. EPA believes that although the current testing requirements and current pounds per ton of metal limit are intended to be temporary limits, removing them and replacing them with a new limit should still be considered a revision to BACT and should be considered a PSD revision and permitted as such.
3. The Preliminary Determination document acknowledges that switching to 0.7% sulfur coke will result in 122 tons per year of SO₂ emissions and that since the fuel change will be directly revising an existing BACT limit, WDNR correctly asserts that the BACT process must be performed for SO₂. WDNR states that there are no significant increases expected for any other pollutants so BACT is only required for SO₂. It should be noted however that SO₂ is a precursor to Particulate Matter of less than 2.5 micrometers (PM_{2.5}). As such, a discussion of BACT and all other PSD requirements are needed for PM_{2.5}.
4. Page 14 of the Preliminary Determination document seems to indicate that both the numerical pounds per hour and pounds per ton of metal processed averaged over 12 month period requirements were temporary limits to be used until a final determination on the BACT emission limit was made at the completion of the BACT emissions study. However, in the draft permit, it is not clear that the 34.83 pounds per hour SO₂ limit in condition I.A.2.(2) is a temporary limit. If appropriate please clarify that the limit is indeed temporary.
5. In the application Waupaca proposed a permit limitation of 23.1 pounds SO₂ per hour, which was calculated proportionally. In the draft permit however, the limit has been increased to 34.83 pounds per hour by adding what appears to be a safety factor of 1.5 to the proportion calculation. This 1.5 factor is calculated by dividing the maximum hourly SO₂ emission rate determined during July 14, 2007 stack tests by the average of three 1-hour run average SO₂ emissions during the same stack tests. Please explain why this safety factor was deemed necessary between the time of the permit application and draft permit and what uncertainties are associated with the proposed modification that require such a high safety factor.
6. In the BACT determination on page 13 of the Preliminary Determination document, WDNR asserts that incremental cost effectiveness is the appropriate measure of whether the technology is economically feasible. EPA guidance cautions permitting authorities from putting excessive focus on incremental cost as this may give an impression that the cost of a control alternative is unreasonably high, when, in fact, the cost effectiveness, in terms of dollars per total ton removed, is well within the normal range of acceptable BACT costs. The importance of considering average cost alongside incremental cost has been affirmed in EAB decisions². Overall, the BACT determination should provide a clear description of all the factors that were taken into consideration by the permitting agency when determining BACT. EPA suggests that WDNR provide further explanation of the economic feasibility as well as the energy and environmental impacts used in this BACT determination.

² See *In re General Motors Inc.* 10. E.A.D. 373- 375 (EAB 2002)

We look forward to working with you to address all of our comments. If you have any further questions, please feel free to contact Andrea Morgan, of my staff, at (312) 353-6058.

Sincerely,

A handwritten signature in cursive script that reads "Genevieve Damico". The signature is written in black ink and is positioned above the typed name and title.

Genevieve Damico
Chief
Air Permits Section