February 8, 2000 (AR-18J)

Lloyd Eagan, Director
Bureau of Air Management
Wisconsin Department of Natural Resources
P.O. Box 7921
101 South Webster Street
Madison, Wisconsin 53707-7921

Dear Ms. Eagan:

This letter is in regard to your November 12, 1999, letter concerning applicability of Prevention of Significant Deterioration (PSD) to debottlenecked sources. Below, we address the issues you raise, based on how we believe each question would be resolved under the federal PSD rules in Title 40 Code of Federal Regulations (CFR) Section 52.21. This does not represent how you must interpret the PSD regulations that the United States Environmental Protection Agency (USEPA) has approved into Wisconsin's state implementation plan, nor does it represent final agency action. Instead, this letter provides guidance for you to consider in your role as the PSD permitting authority.

In your letter, you describe three scenarios, each of which involves a modification to a process line that results in the debottlenecking of an on-site power boiler. You come to the conclusion that, in each of the scenarios, the modification would be considered major and subject to PSD review. EPA first agrees that it is appropriate to consider the increased emissions from the entire project (process line increases plus power boiler increases) in determining whether the increase is significant. See 40 CFR §52.21(b)(3)(I)(*a*) (defining "net emissions increase" to include "any increase . . . from a particular physical change or change in method of operation at a stationary source"). Further, we agree that the proper way of calculating the amount of the emissions increase from these units is to compare each unit's future potential emissions to its past actual emissions. See §§52.21(b)(21)(ii),(iv). With regard to your first conclusion, we concur that, barring additional information, each of the scenarios would be considered a major modification and subject to PSD review under the federal rules because, under each scenario, the net emission increase from the project (process line and power boiler increases) is significant. However, this simple analysis does not account for the fact, relevant particularly in Scenario #3, that if a source estimates that the resultant increase in actual emissions from its construction project will be less than significant, it may avoid PSD by committing to enforceable limitations on its emissions to ensure

that the potential emissions remain below the significance levels. See §52.21(b)(4).

As to your second conclusion, you request USEPA's concurrence on the application of BACT only to the process equipment and not to the power boiler (as described in the third scenario). Again, although we are pleased to give our view of how the Federal PSD rules would apply, we recognize that you have primary responsibility for determining how your SIP-approved PSD program may apply to specific activities, especially where that program varies from the Federal program. In brief summary, where an emissions unit has not undergone a physical or operational change, BACT does not apply. See 40 CFR §52.21(j)(3) (stating that BACT applies to units that experience a net increase "as a result of a physical change or change in the method of operation in the unit" (emphasis added)). The USEPA's past policy confirms this approach. In a memorandum dated July 28, 1983, from Director, Stationary Source Compliance Division, Office of Air Quality Planning and Standards, to Michael M. Johnston, Chief, Air Operations Section - Region X, titled "PSD Applicability Pulp and Paper Mill" (enclosed), we addressed the issue of the application of BACT. The memorandum states that

> since the recovery boiler could not have operated at a level higher than that provided by the existing digester capacity, any increase in actual emissions at the recovery boiler which will result from the increased capacity provided by the larger digester must be considered for the purposes of PSD applicability...Since the recovery boiler itself will not be undergoing a physical change or change in the method of operation, it will not have to apply Best Available Control Technology (BACT). However, all emissions increases must undergo air quality analysis and will consume applicable air quality increments.

In order to understand how this general policy would apply to specific cases, it is essential to establish whether individual units are being physically or operationally changed, and it also vital to ensure that the emission unit is properly defined. For instance, in the enclosed December 24, 1997, memorandum from Judith A. Katz, Acting Director, Air Protection Division - Region III and Robert J. Simolski, Chief Air and Toxics Section, Office of Regional Counsel - Region III to Greg B. Foote, Air Division, Office of General Counsel, titled "BACT Analysis for Westvaco Corporation Paper Mill in Luke, Maryland," USEPA addressed the question of whether or not a power boiler combusting digester gas should be considered a single emissions unit. This memorandum addresses a facility that was replacing three of its twelve digesters with slightly larger digesters. The future potential emissions to the past actual emissions associated with the replacement resulted in a significant net emission increase for sulphur dioxide (SO_2). The emissions increase occurred at the recovery furnaces and the power boilers. The memorandum concluded that

> while the SO_2 emissions are formed indirectly by combustion of the digester gases, EPA Region III considers a process unit and its associated control equipment to be integral parts of a single

> emission unit... Therefore, Region III has determined that BACT must be applied to the power boiler to control SO_2 emissions occurring as a result of the replacement of the digesters.

On March 18, 1998, Bruce C. Buckheit, Director, Air Enforcement Division, concurred with the above conclusion.

Of course, the specific facts surrounding a facility's modification are critical in making a BACT applicability determination. Because your incoming letter did not make clear the nature of the hypothetical facility and whether there may be other factors (including whether the source has existing permit conditions restricting their operations or emissions) that you may need to consider in reaching this conclusion, we do not reach any conclusion about where BACT must apply. Rather, as discussed above, you should carefully consider which units are being physically or operationally changed and should be careful to look at entire emissions units in doing so.

Further, we must stress that the memoranda we have referenced are in response to particular situations at particular facilities, based on the history and facts as presented to USEPA. We caution the careful use of this letter as a reply to a general PSD permit programmatic concern, and request that the WDNR contact us when the applicability issues discussed in your hypothetical are realized in the context of a specific source.

If you have any further questions, please feel free to contact me, or have your staff contact Constantine Blathras at (312) 886-0671.

Sincerely yours,

/s/

Robert B. Miller, Chief
Permits and Grants Section

Enclosures