UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Mr. Leif Ericson (Signed Feb. 9, 1999)
Air Quality Program Manager
Southcentral Regional Office
Pennsylvania Department of
Environmental Quality
909 Elmerton Ave.
Harrisburg, PA 17110

Dear Mr. Ericson:

This letter is a follow-up response to issues discussed in meetings on September 8, 1998 and January 7, 1999 regarding a proposed modification at P. H. Glatfelter's Pulp and Paper Mill (PHG). As requested, EPA has reexamined PHG's request for a pollution control project (PCP) exclusion. EPA believes that this project may qualify for the exclusion provided certain safeguards and additional requirements are met.

Background

PHG proposes to bring PB#3 back online as a fully operational unit for use as a combustion control device for the destruction of VOCs and HAPs to comply with the requirements of reasonably available control technology (RACT) and maximum available control technology (MACT). Furthermore, the facility is requesting that the proposed modification be excluded from NSR under EPA's pollution control project (PCP) exclusion policy. [1] EPA's preamble to the MACT regulations for the pulp and paper industry anticipated that the requirements of NSR could be triggered as a result of treating vent gases using combustion controls and suggests that the exclusion policy could be applied on a case-by-case basis to exclude such projects from NSR.

In our discussions with both PADEP and PHG questions have been raised concerning the NSR/PSD impacts of "undoing" a prior netting action. Pursuant to 40 CFR 51.165(a)(5)(ii) and 51.166(r)(2), if a source requests removal of restrictions on units which previously allowed a new unit to net out of review, then the new unit becomes subject to NSR/PSD as though construction of the new source had not commenced. However, as explained below, EPA is treating the reactivation of PB#3 as the installation of an add-on control device. This treatment is an integral part of allowing the reactivation of PB#3 to be eligible for the pollution control exclusion. Therefore, concerns about revisiting the netting analyses will not be relevant to the proposed project unless PHG or PADEP allows other uses of PB#3.

[1] July 1, 1994 Memorandum from John Seitz, Director, Office of Air Quality Planning and Standards, titled "Pollution Control Projects and New Source Review (NSR) Applicability".

Proposed Modification

The preamble to the MACT regulations identifies the installation of add-on combustion devices to destroy HAPs as one type of control technology that should be eligible for exclusion under the PCP. EPA also specifically states in the exclusion policy that combustion devices installed for the purpose of destroying HAPs to comply with MACT as an add-on control technology are eligible for exclusion. These statements clearly point to the idea that the combustion devices anticipated in the exclusion policy and the MACT rule are installations as add-on control devices, i.e., they are not process units. The preamble does not address the concept of using older, existing combustion sources that may be an inherent part of the manufacturing process as a control device for complying with the MACT standard. The Region does not interpret this silence to mean that the PCP exclusion cannot be invoked for existing units such as PB#3, but we do interpret it to mean that the combustion devices anticipated in the exclusion policy and the MACT rule are installations as add-on control devices, i.e., they are not intended to have a dual role as process units. Therefore, the proposed modification must treat PB#3 as an add-on control device that can not be allowed to contribute to pulp or paper production or increase the utilization of any unit such as a steam turbine.[2]

To determine the terms and conditions necessary to be able to apply the exclusion policy to the proposed modification, each element of the policy is addressed as follows.

Types of Projects Covered

As noted above, add-on combustion devices are considered inherently eligible pollution control projects. However, under the test of eligibility, the policy prohibits PCPs that can be reasonably expected to result in an increase in utilization of the affected emission unit. The "affected emission unit" in PHG's case are the processes in the mill that generate gases to be treated by PB#3. The relationship of emission unit to control device is complicated by the fact that steam is generated as a product of combustion of the vent gases and the steam is directed to a common header for all of the power boilers. The steam from the header is first used to generate power for the plant and for sale to the electric utility grid. After going through the turbines, the steam is used primarily in the pulp production process. To ensure that the increased use of PB#3 does not result in an increase in capacity in pulp or paper production or in the capacity of electrical generation, the steam generation from PB#s 1, 4 and 5 must not exceed the level originally anticipated to support the production levels specified in the permit application for the Pulp Mill Optimization Project.

[2] In the preamble to the MACT rule it is important to note that the PCP exclusion policy was not extended to air emission increases from water pollution control projects. Therefore, the need for steam generated by PB#3 for stream stripping or other non-air related projects cannot be used to justify the use of the exclusion policy or to allow increases in the use of PB#3 above that required to combust the vent gases.

The integrity of PB#3 as a control device must be preserved by limiting the firing of PB#3 to only that rate necessary to combust vent gases. Any fuel use above that necessary for vent gas combustion, e.g. to increase steam production for power generation, pulp production or even for water pollution control projects, would negate the characterization of PB#3 as an add-on control device and void the exclusion from NSR. Therefore, the permit must: (1) limit the firing of PB#3 according to gas flow and destruction requirements; (2) restrict fuel consumption according to the firing rate; (3) cap steam production to the stream production capacity of PB#1, 4 and 5; and (4) require sufficient monitoring and record keeping to assure compliance with these restrictions.

Environmentally-Beneficial Test

The preamble to the MACT rule, as well as the exclusion policy, identify add-on combustion devices as inherently beneficial. However, this presumption does not apply where controls will not be implemented in a standard or reasonable manner or where collateral increases have not been adequately addressed. The latter condition requires sources to take reasonable measures to minimize increases in non-targeted pollutants. EPA believes that reasonable measures include, at a minimum, more restrictive limits on the sulfur content of the fuel used in all the boilers, and permit conditions prohibiting the preferred use of PB#3 over PB#5 to control vent gases. PHG must mitigate SO2 emissions by directing as much of the gas streams to PB#5 as possible since this is the only boiler that has an emission control device for the reduction of SO2 and/or accept limits on the sulfur content of the fuels used in PB#s 1 and 4 to mitigate SO2 emissions increases.

Additional Air Quality Impacts

The preamble to the MACT rule and the exclusion policy include the additional safeguard that the project may not cause or contribute to a violation of the NAAQS or PSD increment, and may not adversely impact a class I area. PHG included a modeling analysis for SO2 and PM in the permit application. The significant impact analysis concluded that further modeling was necessary for SO2 but not for PM. A more detailed modeling analysis for SO2 concluded that the proposed modification at PHG did not consume the increment or contribute to a violation of the NAAQS. A special class I area modeling analysis was not required.

As stated in the policy, sources located in a nonattainment area must provide offsets for significant increases in nonattainment pollutants at a ratio of at least one to one. As shown in the enclosure the increase in NOx emissions would require offsets.

NOx Emission Baseline

An emission baseline was calculated (by PADEP) in order to determine the environmental impact of emission increases and to determine the emission offsets necessary for nonattainment pollutants. In Pennsylvania, the emissions baseline for determining a significant net emissions increase

for nonattainment pollutants is a "potential-to potential" test. For York County this means that a modification that causes a 40 TPY increase in potential emissions of NOx will trigger the requirement to offset NOx emissions at rate of 1 to 1 (under the exclusion policy).

PADEP has stated that Plan Approval No. 67-306-006A, which permitted the installation of PB#5, established an emission limit that controlled the operation of PB#s 1, 3, 4, and 5 such that their combined SO2 emissions could not exceed the maximum allowable SO2 emissions for PB#s 1, 4, and 5 alone. PADEP and EPA have agreed that this operational restriction must be considered when looking at the baseline emissions for NOx. The effect of keeping PB#3 as a stand-by unit and having the above operational restrictions is that baseline NOx emissions for the potential-to-potential test must also be based on the combined operation of PB#s 1, 4 and 5. Finally, the NOx emission potential for PB#s 1, 4 and 5 must be reconciled with required RACT emission rates. These conclusions are presented in tabular form in the enclosure to this letter and are based upon data provided by PADEP and PHG. It is important to note that EPA will not accept individual baselines for any of the power boilers since their operation continues to be mutually dependent on their combined emissions.

Permit Issuance

It is reasonable to assume that PHG will need to install piping and make other modifications in order to route the NCGs to PB#3 and to use the latter as a control device rather than as a process unit. Please note that EPA interprets these actions as requiring a plan approval. Pursuant to Chapter 127.11 of Pennsylvania's regulations, approval by the Department is required when an air contaminant source is constructed or modified or when an air cleaning device is installed. In reviewing this as a plan approval, we recommend that PADEP consult with David McGuigan, Chief of EPA's Area II Enforcement Branch, to determine PHG's compliance status. The compliance status will need to be considered again when the source's operating permit is revised to include the modifications for PB#3 outlined above. Neither Chapter 127.12 for plan approvals or 127.412 for operating permits prohibit issuing a permit to an EPA-listed violator as it would to a source listed on the state's docket. Nevertheless, we believe it would be impossible for the source to certify that it is in compliance with all requirements of the Clean Air Act if it is the subject of a federal enforcement action. If the source is in non-compliance with the State's Air Pollution Control Act, the federal Clean Air Act or the regulations adopted pursuant to these statutes, Chapter 127.445 will require the operating permit to contain a compliance schedule.

Although EPA does not believe that PB#3 is the most environmentally beneficial method for meeting RACT and MACT requirements, its use as a control device would meet the requirements for a PCP exclusion as long as the above mentioned operational restrictions, mitigation tactics and offsets are imposed. We appreciate the opportunity to continue to work with you on this permit. Please contact me at (215) 814-2175, or MaryBeth Bray of my staff at (215) 814-2632, should you have any questions regarding this matter.

Sincerely,

Kathleen Henry, Chief
Permit Programs Section

Enclosure

cc: Mr. John F. Slade, PADEP Central Office
P. H. Glatfelter Company, Spring Grove, PA

NOX Baseline Calculations[1]

Unit	Steam Rate (lbs/hr)	Heat Input (mmbtu/hr)	Post-RACT NOx (lbs/mmbtu)	Post-RACT NOx (tpy)
PB #1	200,000	262.3	0.54	620.4
PB #4	250,000	363.7	0.51	812.4
PB #5	400,000	545	0.39	931.0
PB #3	120,000	140.1	0.60	368.2
Total[2] (unrestricted)				2732.6
Limited[3]	850,000	1171.3		2363.8
Allowable without offsets[4]				2403.7

[1] The post-RACT values were estimated.

[2]Total from PB #1, PB #3, PB #4, and PB #5

[3]Sum of PB #1, PB #4 and PB #5 as limited in previous permit

[4]Total allowable NOx emissions for which obtaining NOx offsets would not be necessary (equal to the previous limited amount of 2363.8 plus 39.9)