



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Office of Air Quality Planning and Standards  
Research Triangle Park, North Carolina 27711

1 DEC 1992

MEMORANDUM

SUBJECT: Proposal for Resolving Part D Sulfur Dioxide  
State Implementation Plan Revision for  
Rhineland, Wisconsin

FROM: Joseph A. Tikvart, Chief *J. Tikvart*  
Source Receptor Analysis Branch, TSD (MD-14)

TO: Gary Gulezian, Chief  
Air Toxics and Radiation Branch, Region V (AT-18J)

In response to your request, the Model Clearinghouse has reviewed your latest proposal for resolving the emission limitations for the Rhineland Paper Company (RIPCO). It is our understanding that the proposal would allow RIPCO to essentially operate its cyclone boilers and stoker boilers in more or less any combination provided that the total plant emissions would not exceed the so-called "base case," approximately 26,948 pounds of sulfur dioxide (SO<sub>2</sub>) per day. This differs from previous proposals to the Clearinghouse on this issue where the plant was prohibited from operating any more than two stoker boilers in conjunction with the cyclone boiler. This mode of operation corresponded to the units that were operating on the days of high observed concentration, thus forming a logical basis for the rollback calculation.

Regarding the current proposal, the bottom line is that we are willing to defer to your professional judgment that operating the plant as proposed will not result in a violation of a National Ambient Air Quality Standard (NAAQS). However, as we indicate below, we do not believe that position can be logically supported by dispersion modeling. Also, given the uncertainties in this case, we suggest that the plant be required to conduct ambient monitoring, collect emissions data, and collect meteorological data in the vicinity of the plant. Such data would be used to resolve the source-receptor relationships if another exceedance of the NAAQS were observed. Such data could also be used to support the acceptability of any future plant expansion or different emission configurations.

Based on a review of our records on the RIPCO issue, it appears that something similar to the current proposal was discussed between Region V and the State back in 1988. At that time the State suggested that various combinations of boiler

operating rates could be supported by modeling by considering only the relative contribution of the various units, rather than the absolute concentration. In a May 9, 1988 letter from Region V to the State, the Environmental Protection Agency (EPA) indicated that since the model was underpredicting in the absolute sense, it should not be relied upon in the relative sense either; thus, the State's position was not supported by the modeling.

In your current proposal, you indicate (last paragraph of your November 9, 1992 memorandum) that it is supportable from dispersion modeling results by examining the relative contribution of the cyclone and stoker boilers. Since the argument does not seem to be basically different from that espoused by the State in 1988, and we have not seen any new information that would refute the previous EPA position, we do not believe that the current proposal can be supported by the modeling.

However, as we indicated above, and setting aside the dispersion modeling arguments, we would still be willing to defer to your professional judgment that the NAAQS are not at risk with the proposed emission limits. Recognizing that rollback is an oversimplistic source-receptor analysis technique, and especially so where multiple sources are involved, we suggest that meteorological, ambient and emission data be collected in the future such that any significant ambient events can be properly analyzed.

If you have any questions please contact Dean Wilson at 919-541-5683.

cc: G. Blais

bcc: Regional Modeling Contact, Regions I-X (with copy of incoming memorandum and list of FY-93 Clearinghouse memoranda)

# **FY-93 MODEL CLEARINGHOUSE MEMORANDA**

<u>Date</u>	<u>Region</u>	<u>Subject</u>
10/7/92	IV	Response to Proposal to Allow Credit for a Stack Height Increase at the Dade County Resource Recovery Facility, Dade County, Florida
10/28/92	V	Demonstrating Attainment of the Ozone National Ambient Air Quality Standards (NAAQS) with the Urban Airshed Model (UAM) for Detroit
10/28/92	VII	Demonstrating Attainment of the Ozone National Ambient Air Quality Standards (NAAQS) with the Urban Airshed Model (UAM) for St. Louis
10/28/92	IV	Attainment Demonstrations using the Empirical Kinetics Modeling Approach (EKMA)
11/5/92	I	Proposal to Use ISCRDT to Model Intermediate Terrain (Boise Cascade, Rumford, Maine)
11/12/92	VIII	Denver PM-10 State Implementation Plan (SIP) Modeling Issues
12/10/92	V	Proposal for Resolving Part D Sulfur Dioxide State Implementation Plan Revision for Rhinelander, Wisconsin