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

JAN 18 1995

MEMORANDUM

SUBJECT: Request for Clarification on CTDMPLUS Model Inputs (Merrimack Generating Station, BOW NH)

FROM: Joseph A. Tikvart, Group Leader J. Tikvart
Air Quality Modeling Group, EMAD/OAQPS (MD-14)

TO: Brian Hennessey, Regional Modeling Contact
Air Permits & Assessment Section, Region I

We have reviewed your January 9, 1995 memorandum to the Model Clearinghouse. In this memorandum, you requested Clearinghouse concurrence on one of the Region's draft comments concerning the proposed modeling protocol for Public Service of New Hampshire's Merrimack Generating Station. In this comment, the Region noted that PSNH did not specify which sigma theta values will be input to the CTDMPLUS model for use in calculating hourly values of lateral plume dispersion (sigma y) under neutral/stable conditions. Apparently, PSNH has available both hourly and 15-minute values of sigma theta obtained from on-site measurements. In its comment the Region is recommending that the hourly values be used as input to the model.

We concur with your comment to recommend the hourly values of sigma theta as input to the CTDMPLUS model. As you noted, the User's Guide to CTDMPLUS (EPA-600/8-89-041) is not explicit in defining the averaging time for the sigma theta values input to the model. However, CTDMPLUS is a steady-state plume dispersion model designed to estimate hourly-average concentrations. Also, it is noted in the User's Guide that the meteorological data file used as input to the METPRO meteorological preprocessor (i.e., PROFILE) presumes hourly values of several meteorological values including sigma theta. Thus, your recommendation is consistent with the input data requirements and lateral plume dispersion formulations within the CTDMPLUS model.

In response to your request for any other comments concerning the modeling protocol, your additional comments on the protocol noted in your draft basically cover any other comments we have.

If you have any other comments or questions, please contact Dennis Doll at (919) 541-5693.

cc: D. Bailey
D. Doll
J. Irwin
D. Wilson

FY-95 MODEL CLEARINGHOUSE MEMORANDA

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11/04/94	V	Model Clearinghouse Review of Modeling Approaches in the Stuebenville-Follansbee Area
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