UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Research Triangle Park, North Carolina 27711

01 FEB 1991

MEMORANDUM

SUBJECT: Georgia Power Plant Yates GEP Modeling

FROM: James L. Dicke, Chief
Techniques Evaluation Section, SRAB (MD-14)

TO: Brenda Johnson, Meteorologist
Region IV

In response to your memorandum of January 11, 1991, the Model Clearinghouse has reviewed your position regarding the Yates GEP modeling and offers the following comments. You have stated the case correctly for using scalar wind speed, in terms of dilution speed, and scalar average or unit vector direction, to model plume transport. In addition, EPA's point source models apply a wind speed profile for determining the change of speed with height, e.g. from the 10m measurement level to stack top, and this requires input of scalar mean or unit vector wind speed.

The report from the 1980 workshop does recommend reporting hourly resultant vector directions and unit vectors are not mentioned. However, in succeeding years, the recommendations now found in EPA's on-site guidance document were developed and peer reviewed. In capsule form they appear on page 6-42 of the guidance document and EPA received no adverse public comments on them following presentation of the document at the Fourth Conference on Air Quality Modeling. Thus those recommendations should be followed for straight line Gaussian dispersion model applications unless the user's guide for a particular model states differently.

If you have further questions, please contact me or Desmond Bailey at FTS 629-5248.

cc: D. Bailey
B. Miller
J. Tikvart
D. Wilson

FY 91 MODEL CLEARINGHOUSE MEMORANDA

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1/7/91	V	Pit Retention from Stone Quarries
1/8/91	IV	Meteorological Data for the Ashland Petroleum Company GEP Modeling Analysis
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