UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711
September 21, 1988

MEMORANDUM

SUBJECT: New Jersey CO Modeling Protocol

FROM: Thomas N. Braverman, Environmental Engineer
Techniques Evaluation Section, SRAB (MD-14)

TO: Steven Sambol
Air Programs Branch, Region II

In response to your request, the Model Clearinghouse has completed its review of the materials you sent us which constitute the revised carbon monoxide (CO) modeling protocol for redesignation of five cities in New Jersey to attainment. I have had a number of discussions with you on these materials over the past 2 months and provided you with verbal comments representing the Clearinghouse position. This memorandum serves to document these discussions.

In general, we find the revised protocol to be acceptable. However, the Clearinghouse still has some concerns with selection of intersection modeling procedure and estimation of background concentrations.

The intersection modeling procedure described in the protocol is Worksheet 2 of Volume 9 to estimate emission rates for input to the CALINE3 dispersion model. This procedure is consistent with the Guideline on Air Quality Models (Revised). However, the July 1, 1988 Region II letter to New Jersey states that if the Guideline procedure shows NAAQS violations, New Jersey may wish to utilize a new CO modeling technique being developed by EPA in place of the recommended procedure. Development of a new intersection modeling technique by EPA is still in an evolutionary stage and no date for release has yet been discussed. Thus, use of such a technique before regulatory promulgation would have to be justified, approved, and closely coordinated with the Model Clearinghouse.

In addition, we prefer that monitoring data rather than procedures in the Carbon Monoxide Hot Spot Guidelines, be utilized to estimate background concentrations. Background monitors should be representative of the city where the intersection is being modeled but, to the extent possible, not be affected by the intersection itself. Concentration

estimates at the background monitor should be over the same 8-hour periods that the highest concentrations are measured at the intersection monitor.

If you have any questions or further concerns, please contact me at FTS 629-5383.

cc: J. Tikvart, SRAB (MD-14)
R. Vogel, OCMPB (MD-15)
D. Wilson, SRAB (MD-14)
Regional Modeling Contacts, Regions I-X
(w/incoming memo and Clearinghouse responses list of FY 88)
Regional CO Modeling Contacts, Regions I, IV, V, VII (w/incoming memo)