



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

18 JUN 1993

MEMORANDUM

SUBJECT: Draft Protocol for Modeling a Sewage Sludge Incinerator
FROM: *Dean A. Wilson*
Dean A. Wilson
Model Clearinghouse Coordinator (MD-14)
TO: Rebecca Calby, Regional Meteorologist
Region V

In response to your request, the Model Clearinghouse has reviewed your proposal for resolving modeling issues in the protocol for modeling the Jackson Pike and Southerly incinerators. Your main concern with the protocol was that it proposed to use the Complex I model with off-site meteorological data to assess impacts from the incinerator in terrain above stack height. As an alternative, you propose a procedure that first determines whether complex terrain concentrations might be higher than simple terrain estimates and if so, to use the CTSCREEN model to make such complex terrain estimates. If the simple terrain concentrations are constraining, then the Industrial Source Complex (ISC2) model would be used to refine the estimates.

The Model Clearinghouse agrees with your proposed scheme. While there are some aspects of your proposed scheme that could be questioned as not providing the most rigorous approach possible, it is a reasonable approach, given the time constraints you are under.

Regarding any possible concern on the use of the CTSCREEN model if the area turns out to be urban, we are not aware of any data that would suggest that CTSCREEN is not conservative in such a situation. While the model was not designed as an urban screening technique, the presumption is that it is still conservative, lacking any data to the contrary. While not ideal, the application of CTSCREEN in this urban area is probably the best path to follow, lacking on-site meteorological data.

If you have any questions, please contact me.

cc: D. Bailey
S. Perry
J. Touma

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
12/15/92	IV	The Ozone Attainment Test in the State Implementation Plan (SIP) Modeling Demonstrations
2/18/93	II	AES Guayama, Puerto Rico Proposal to Use the Rough Terrain Dispersion Model with Off-Site Meteorological Data
2/22/93	VIII	Carbon Monoxide State Implementation Plan Attainment Demonstrations
2/23/93	II	AES Guayama, Puerto Rico Proposal to Use the Rough Terrain Dispersion Model with Off-Site Meteorological Data

FY-93 MODEL CLEARINGHOUSE MEMORANDA (Cont'd)

<u>Date</u>	<u>Region</u>	<u>Subject</u>
3/2/93	VIII	E. Helena Lead SIP Attainment Demonstration
3/30/93	V	Nonmethane Organic Compound (NMOC) and Nitrogen Oxides (NO _x) Monitoring Required for the Empirical Kinetics Modeling Approach (EKMA) for Nonattainment Areas in Ohio
4/5/93	V	Nonmethane Organic Compounds (NMOC) and Nitrogen Oxides (NO _x) Monitoring Required for the Empirical Kinetics Modeling Approach (EKMA) for Nonattainment Areas in Ohio
5/18/93	VI	Technical Comparison Document--Phelps Dodge Smelter
6/7/93	VII	Wind Field Development for the Urban Airshed Model (UAM)
6/10/93	V	Draft Protocol for Modeling a Sewage Sludge Incinerator