

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

DATE: APR 5 - 1994

SUBJECT: Calculating a Good Engineering Practice (GEP) Stack
Height due to Terrain Induced Downwash

FROM: Pamela Blakley, Air Emissions Expert *PB*
RCRA Permitting Branch, WMD (HRPO-8J)

TO: Dean Wilson, Meteorologist/Model Clearinghouse Coordinator
Techniques Evaluation Section, SRAB (MD-14)

Thank you for providing me with the opportunity to directly request a Model Clearinghouse response. As you may be aware, Region 5 is undertaking an effort to perform an indirect exposure analysis for a hazardous waste incinerator located in East Liverpool, Ohio. As a result of recommendations made by a select group of peer reviewers, the Region was asked to investigate the possibility of and impacts due to terrain-induced downwash. The Region has been working with Dr. William Snyder of the Office of Research and Development on the development of a wind tunnel study to determine such impacts.

Based on discussions with Dr. William Snyder, it has been recommended that a GEP stack height determination due to the terrain could not be performed. I have attached a memorandum outlining the basis for his recommendation. Based on the information provided, my request of the Model Clearinghouse is to provide a response as to whether the regulations and procedures have been interpreted as intended and whether the recommendation is appropriate. Your response to this request will provide additional technical support to assist us in our response back to the Peer Reviewers during our workshop this Fall. I appreciate your assistance in this matter and await your timely response.

Attachment

cc: Stephen Rothblatt, (AR-18J)

FY-94 MODEL CLEARINGHOUSE MEMORANDA

<u>Date</u>	<u>Region</u>	<u>Subject</u>
11/18/93	X	Building Wake Effects on Volume Sources at FMC Corporation
11/24/93	IV	CP&L Stack Height Increase
12/07/93	VI	Revised Technical Comparison Document--Phelps Dodge
01/19/94	IV	Test Proposal for Wind Tunnel Modeling of Plume Impact Under Stable Stratification for the Cane Run Station (CRS) in Louisville, Kentucky
02/02/94	IV	Wind Tunnel Report for Determining Equivalent Building Height Determinations for the Cape Industries Facility of Wilmington, North Carolina
03/16/94	V	Air Quality Model Evaluation Protocol for Cyprus Northshore Mining Company
03/21/94	VIII	Denver Carbon Monoxide Attainment Demonstration
03/31/94	II	Green Island Resource Recovery Facility - Modeling Emission Inventory
05/17/94	V	Calculating Good Engineering Practice (GEP) Stack Height Due to Terrain Induced Downwash