



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.  
ATLANTA, GEORGIA 30365

MEMORANDUM

DATE: JUN 04 1991

SUBJECT: On-Site Meteorological Data Collected at Ashland Oil Refinery in Catlettsburg, Kentucky

FROM: *Jewell Grubbs*  
Jewell Grubbs, Chief  
Northern Planning, Grants &  
Monitoring Section  
EPA-Region IV

TO: Desmond Bailey  
Meteorologist OAQPS (MD-14)

The 1985 revision of the Stack Height regulations require states to review a source's emission limitations to determine if the limitations have been affected by stack height above Good Engineering Practice (GEP) or any other dispersion technique as defined in the stack height regulation. As a result of this revision, modeling for Ashland Oil refinery is necessary. Unfortunately, this has not been adequately completed to date.

We have recently located the tower data collected at this refinery and need to determine if it is acceptable for use in the GEP modeling demonstration using the RTDM model for Ashland Oil. Attached is a brief description of the meteorological data collected at several towers in an extensive monitoring network operated (1978-1979) by the Ashland Oil Refinery in Catlettsburg, Kentucky. The refinery contains many (83) sources of varying stack heights. The meteorological tower data that would be of use in the RTDM model for this refinery are from the towers identified as M5 and M3 in the attachment.

Table III-3 of the attachment shows that greater than 90% data retrieval on an annual basis was achieved for the M5 tower for all variables collected and for wind direction at the M3 tower. Eighty-nine percent (89%) of data was collected for wind speed and 75% for vertical wind at the M3 tower. The vertical wind data is not used in the RTDM model since it is run in the regulatory mode. However, since this GEP stack height issue has persisted for such a long time, is 89% data retrieval sufficient and acceptable for regulatory purposes? We believe that the data is acceptable even though the guidance recommends at least 90% data retrieval.

We would appreciate your response as soon as possible. If further information is needed or questions arise, please call Brenda Johnson at (404) 347-2864.

Attachment