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

2 MAR 1993

MEMORANDUM

SUBJECT: E. Helena Lead SIP Attainment Demonstration

FROM: Gary Blais, Environmental Protection Specialist
SO_2/Particulate Matter Programs Branch (MD-15)
Dean Wilson, Meteorologist
Source Receptor Analysis Branch (MD-14)

TO: Laurie Ostrand, Environmental Engineer
Air Programs Branch, Region VIII (8ART-AP)

Kevin Golden, Regional Meteorologist
Technical Operations Branch

In response to the request of January 12, 1993, the Model Clearinghouse has reviewed the identified issues relating to the E. Helena Lead SIP attainment demonstration. First, regarding the stack height increase, gas stream merging, and tie-in questions, we believe that these proposed changes are approvable and do not represent prohibited dispersion techniques for the following reasons:

1. There will be a plant-wide net reduction in allowable lead emissions.

2. "EPA believes that as long as at least one gas stream is being controlled, the motivation for the stack [merger] is not likely to be governed by a desire for dispersion credit." Response to Comments on the November 9, 1984, Proposed Stack Height Rules.

3. It may be argued that the venting of source 9P to the new 200 foot stack is being done for sound engineering reasons, since the original stack for this source is only 18 feet tall and the new stack is already a part of an overall plan to reduce emissions at the plant and is not above the good engineering practice de minimis stack height (65 meters).

4. The stack height credit for tying-in source 17P to stack 7P is approvable but should be limited to 65 meters.

With regard to process weight restrictions/emissions limit averaging times, this is a Regional decision and should probably be made based on enforceability concerns.

With regard to the time of day restrictions, we agree with your position that since the restrictions are based on historical meteorological data and not real-time data, they are approvable measures from a regulatory standpoint. From a technical standpoint, it is our understanding that ASARCO's proposal to restrict emissions during the nighttime hours stems from higher modeled impacts associated with low level fugitive emissions during stable meteorological conditions when dispersive conditions are minimal. Following the procedures for which we currently determine stability for modeling purposes, such conditions would only occur during the nighttime hours. We have discussed with you the issue of whether our methods of determining stability for modeling purposes would capture all of the cases of truly reduced dispersion leading to elevated ground level concentrations from low level fugitive sources. We agreed that because of limitations in our ability to simulate the atmosphere in time and space, there could be cases where low level fugitives would have an elevated impact due to reduced dispersion outside of the nighttime hours. On the other hand, since lead is a quarterly standard, the impact of a few such hours would be expected to be minimal on the quarterly average.

With regard to the enforceability of time of day restrictions, we agree that specific recordkeeping and reporting requirements must be maintained, and how this will be done must be spelled out in the SIP. Also, periodic measurements of the lead content of the materials being handled must be made and recorded. We also agree that it would be wise to do recordkeeping on a monthly basis.

If you have further questions, please contact us.

cc: D. Atkinson
E. Ginsburg
J. Paisie
J. Tikvart

bcc: Regional Modeling Contact, Regions I-VII, IX-X (with copy of incoming memorandum and list of FY-93 Clearinghouse memoranda)

FY-93 MODEL CLEARINGHOUSE MEMORANDA

Date	Region	Subject
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, Puerta 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, Puerta Rico Proposal to Use the Rough Terrain Dispersion Model with Off-Site Meteorological Data

FY-93 MODEL CLEARINGHOUSE MEMORANDA (Cont'd)

Date	Region	Subject
3/2/93	VIII	E. Helena Lead SIP Attainment Demonstration