

STATE OF COLORADO

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Roy Romer
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Thomas M. Vernon, M.D.
Executive Director

January 4, 1989

Doug Skie, Chief
Air Programs Branch
EPA Region VIII
1 Denver Place
999 18th Street
Denver, Colorado 80202-2413

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Dear Doug:

The Division has had several meetings with Dale Wells and John Notar of your staff regarding the protocol to be used in modeling PM_{10} concentrations for the Denver metropolitan area. It is imperative that we get the regional office's formal position on several critical issues so that the modeling of Denver for the PM_{10} State Implementation Plan (SIP) can be completed in the Metropolitan Air Quality Control's (MAQC's) timeframe. As you may know, the key modeler working on the Denver PM_{10} SIP analysis has left our staff. Many of these issues may have been resolved between Frank Huhn and your staff but lack a formal EPA position. Thus, we are presenting this request.

Due to uncertainties in Denver's actual background concentration, we are proposing that Denver's background concentration be determined from the lowest concurrent monthly Limon Total Suspended Particulates (TSP) concentrations (adjusted to PM_{10} concentrations using a Lamar PM_{10} TSP ratio since no PM_{10} is available from Limon).

For point source emissions within the Denver metropolitan area, we are proposing to use actual PM_{10} emissions since they are more representative of emissions from this source category.

As previously agreed, we will regrid the three-by-three mile grid areas exceeding a "critical" 24-hour value of $125 \mu g/m^3$ (before any corrections for TSP and background) to a one-mile-by-one mile grid. This gridding would be valid for both input source categories and receptors.

The woodburning emission inventory will be updated to reflect the woodburning survey performed by Community Response earlier this year.

Mr. Doug Skie
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At the direction of the regional office, we are using the RAM model to determine 24-hour PM₁₀ concentrations and will average these over a year to determine an annual PM₁₀ concentration. This will be performed for a 1982 to 1986 five-year meteorological data set. We need to know how to determine which of the five-year annual PM₁₀ concentrations represent a "design value."

For the 24-hour design values, the sixth highest modeled value from the five-year data base will be used as the design value. This will be the sixth highest value at each receptor.

We are proposing to use a 1986 emission inventory as a base year for the PM₁₀ analysis; the "1995 Airport Build" transportation data set (TDS) as a conservative attainment year and the "2010 Airport Build" TDS as a conservative maintenance year.

If necessary, the emission inventories will be adjusted to incorporate the results obtained from chemical mass balance modeling to correctly reflect contributing source emission categories. Proposed control strategies from the MAQC will then be applied to obtain compliance with the PM₁₀ standard by the 1995 date.

There may be other issues your staff may want to respond to other than those mentioned above. We welcome these and hope that by resolving some of the preceding issues the PM₁₀ modeling for Denver can proceed in a timely manner. If your staff has any questions please call Mr. Bob Graves at 331-8526 or my staff. It is critical that we receive a formal position about these issues by January 20 so that we can proceed with the SIP modeling. The timely response by your staff is appreciated.

Sincerely,



Bradley J. Beckham, Director
Air Pollution Control Division

BJB/RG/jj

cc: Steve Arnold
Barbara MacRae
Michael Schonbrun, MAQC
TSP WP 5.2a