Model Clearinghouse Information Storage and Retrieval System

Record Information Report

Record Number: 99-IX -01 Fiscal Year: 1999 Region: 09 Last Update:
Name: Owens Valley PM SIP-June 99 06/16/99

State(s): CALIFORNIA
Pollutant(s): PM-10
Regulation(s): SIP
Source(s): Mixed/Multiple Sources
Model(s): Rollback
Subject(s): Interpretation of Regulatory Guidance
Receptor Modeling
Urban/Rural: Rural Only
Oral/Written: Oral
Terrain: Low Terrain (below stack height)
Guideline: Guideline
Database: Not Relevant
Involvement: Review and Comment
Record Comments:
6/16/99
Both the short term and annual PM-10 standards are violated in the Owens Valley. However the
short term standard violations are more restrictive, in terms of the amount of control needed.
Issue: Region IX believe that it is not necessary to provide a demonstration that the annual mean
will be attained as long as the short term attainment demonstration is supportable.
C/H Comment: Agree with Region IX. The rollback calculation they performed is adequate
rationale to exempt the annual demo. This was agreed upon by AQSSD. See below.
From: <Bohnenkamp.Carol@epamail.epa.gov>
To: RTP10.RTPTSD(MEYER-NED),RTP3.RTMU258(WAYLAND-ROBER...
Date: 6/16/99 9:20am
Subject: Owens - annual standard
Bob and Ned,
Could you discuss this?
---------- Forwarded by Carol Bohnenkamp/R9/USEPA/US on 06/16/99 09:23 AM ----------
David Jesson

06/14/99 03:25 PM
To: Carol Bohnenkamp/R9/USEPA/US@EPA
cc:
Subject: Owens - annual standard

EPA's PM-10 Guideline states that "the SIP related emission limits should be based on the NAAQS (annual or 24-hour) which result in the most stringent control requirements. For example, if the annual NAAQS requires more stringent control requirements than the 24-hour NAAQS, the annual NAAQS is considered the more restrictive standard and the corresponding emission limit would be adopted." PM-10 SIP Development Guideline (EPA 450/2-86-001), June 1987, p. 6-1.

The 1998 SIP properly focuses on attainment of the 24-hour standard, which is exceeded about 20 times per year. Over the period 1987 through the present,

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the area has violated the annual standard only once. The 3-year annual arithmetic average for the most recent period (1996-1998) is 37.0 ug/m3. This is a typical value for the area, and is 26 percent below the annual NAAQS of 50 ug/m3.

Although the area generally attains the annual standard, the SIP must include controls sufficient to provide for attainment of not only the 24-hour standard but also the annual standard. The single violation of the annual standard from 1987 to the present occurred at the Keeler monitoring site during the 1988-1990 period, when the annual arithmetic average was 57 ug/m3. The total required annual PM10 concentration reduction for the site would be:

57 ug/m3 - 50 ug/m3 = 7 ug/m3

The background concentration for the area is 28 ug/m3; thus, the "non-background" concentration would be:

57 ug/m3 - 28 ug/m3 = 29 ug/m3.

The required reduction to attain the annual standard is 24 percent of the "non-background" PM10. In contrast, the required "non-background" reduction to attain the 24-hour standard is 97 percent (1998 SIP, p. 6-12). Therefore, the 24-hour NAAQS is considered to be the more restrictive standard. Moreover, there is no evidence to suggest that the control measures employed to attain the 24-hour standard would not also be effective in controlling for the annual NAAQS. Therefore, the plan's controls should be more than sufficient to ensure attainment of the annual PM-10 NAAQS.

The C/H should support the Region IX position that only a rigorous demonstration of the attainment of the
short term standard is needed. It seems clear from the PM-10 SIP development guideline that one
only needs to focus on the more stringent standard.
I assume that the demo for the short term is based on receptor modeling alone and no dispersion
modeling. If dispersion modeling was done then the annual mean is automatically generated anyway.
It seems that the legal people would be covered if the mathematical rollback exercise that was
included in the letter was actually cited as a demonstration that annual

standard will be met. The
cleanest way to do that would be to try to get CA to include that as part of their SIP submittal. Lacking
that, the EPA approval FR could just cite the PM-10 SIP G/L and the rollback calculation. Region
IX should be careful to show that the same sources cause the violation of the annual as for the 24
hour.
I tried to think back over the other PM-10 SIP's that have come in over the years to see if a similar
issue has ever come up. I don't think it has because I think that most if not all of these SIP's only had
violations of the short term NAAQS and not the annual. The only possible exception might have been

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for PA around the steel mills and NYC that had a diesel bus particulate problem. Even those I am
not sure about. Maybe Tom B knows about these. If not, and the concern is great enough I suppose
we could chase that and see if there was such an issue for these SIP's.
Dean Wilson
6/16/99
From: ROBIN DUNKINS
To: RTPHUB.IN."Bohnenkamp.Carol@epamail.epa.gov"
Date: 6/16/99 10:01am
Subject: Owens - annual standard -Reply
What you have forwarded is correct. The 24hour standard for the old PM10 NAAQS was the
controlling standard and control strategies were based on the worst case scenario. If you
identified RACM/BACM for the 24hour, you should be able to demonstrate attainment for the
annual.