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MEMORANDUM

TO: Bernard J. Dailey, Air Quality Engineering Supervisor

FROM: Ken Rairigh, Air Quality Specialist

SUBJECT: Modeling Protocol for Solvay Minerals, Inc.

DATE: December 12, 1996

I have finished the completeness review of the modeling protocol for the Solvay Minerals, Inc. application. The following comments address the additional information which is needed to complete an air quality analysis of this facility.

1. A table which provides the emission rates for each pollutant for each source, and the corresponding source parameters which represent the worst-case air quality operational scenario proposed in the application.

2. A facility plot plan which depicts the UTM coordinates of:

   a) The facility property fence line
   b) All point, area, and volume sources, as applicable
   c) The structures to be used in the modeling analysis

3. The data files which contain the dimensions of all structures used in the building downwash analysis (length, width, and height).

4. A plot showing the location of all receptors used in the modeling, and the location of the maximum modeled concentrations for each pollutant for both NAAQS and PSD determinations. Additionally, the data files created in ISC3 for making plots should also be furnished, along with all necessary ISC3 input and output files.

5. Identify the regional sources for PSD-increment determinations for the surrounding area.

6. Plots which depict the significant impact levels for each pollutant and corresponding averaging period, as applicable.

7. Determination of appropriate background SO2 and NOx values for this area.

The protocol states, "Potential increases of VOCs will exceed the PSD thresholds", "although no modeling demonstration is proposed because there is not an accepted methodology that adequately addresses the complex interactions of VOCs in the atmosphere." The protocol does not address Ozone related issues as a result of the proposed expansion at Solvay.