

Model Clearinghouse Information Storage and Retrieval System

Record Information Report

Record Number: 99-VIII-02 Fiscal Year: 1999 Region: 08 Last Update:
Name: Amoco-September 99 09/15/99

State(s): NORTH DAKOTA

Pollutant(s): SO2

Regulation(s): SIP Revision

Source(s): Refinery

Model(s): AERMOD

CTSCREEN

ISC3

Subject(s): Mixed Terrain Modeling

Urban/Rural: Rural Only

Oral/Written: Oral

Terrain: Both High and Low Terrain

Guideline: Guideline & Non-guideline

Database: Off-site

Involvement: Review and Comment

Record Comments:

RECORD OF COMMUNICATION

TELEPHONE CALL MEETING CONFERENCE CALL OTHER

INFORMATION COPIES TO: Warren

TO: D. Wilson

FROM: K. Golden, Region VIII

DATE: 9/15/99

TIME:

SUBJ: Amoco SIP Revision

SUMMARY OF COMMUNICATION:

Source, a refinery, located in Mandan ND along the Missouri River, does not want to increase emissions overall but wants more flexibility in how they emit, e.g. which stacks and when. Under their proposed new configuration they model some SO2 violations in intermediate terrain, with ISC3. They now want to use AERMOD.

Issue: Region VIII is not in favor of using AERMOD because it is difficult to determine specific parameters and it may come down to a question of whose judgment is correct. Region VIII would like to use a combination of ISC3 and CTSCREEN for complex terrain but doesn't know whether they can make judgments on intermediate terrain. About 70% of the emission come out 3 stacks that are about 30 meters high. Some terrain within a mile or so is somewhat above that

level leading to the intermediate terrain problem.

C/H Comment: In river valleys like this one and with refineries with their short stacks, one often encounters situations that are technically complex terrain but really aren't the classic case. These are not the situations where the complex terrain policy was designed to address. There have been some similar cases in the past, notably many years ago for refineries in the Kansas City area. In that case it was left up to the Region as a matter of good technical judgment on how to treat the source receptor relationships, whether it really should be complex terrain or not. This situation is really very similar to the Kansas City situation. Thus Region VIII should not feel bound by the guidance in a strict sense and go ahead and recommend the proposed combination of ISC and CTSCREEN.

FOLLOW UP ANTICIPATED: Region VIII will follow up with the source.

MODEL CLEARINGHOUSE RECORDS INFORMATION:

SOURCE NAME: AMOCO

LOCATION: Mandan ND

SOURCE TYPE: refinery

POLLUTANTS: SO₂

REGULATION(S) INVOLVED: SIP Revision

MET. DATA BASES (ON/OFF-SITE): Off

MODEL(S) USED: ISC3, CTSCREEN, AERMOD