

IL GRAIN ELEVATOR DEC. 99
12/21/99

Model Clearinghouse Information Storage and Retrieval System

Record Information Report

Record Number: 00-V -04 Fiscal Year: 1900 Region: 05 Last Update:
Name: IL Grain Elevators-Dec. 99 12/20/99

State(s): ILLINOIS
Pollutant(s): PM-10
Regulation(s): SIP Revision
Source(s): Grain Elevators
Model(s): ISC3
PRIME
Subject(s): Downwash
Emissions Characterization
Receptor Networks
Urban/Rural: Rural Only
Oral/Written: Oral
Terrain: Low Terrain (below stack height)
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:

TO: Mick Daye
FROM: D. Wilson
DATE: 12/10/99

TIME:

SUBJ: Statewide Modeling of volume sources

SUMMARY OF COMMUNICATION:

Background:

From: <Portanova.Mary@epamail.epa.gov>
To: RTP10.RTPTSD(ATKINSON-DENNIS,PETERS-WARREN)
Date: 12/6/99 6:49am
Subject: ISC w/in 100m

Dennis, Warren, are we pretty confident in ISCST3's results for ground level volume source emissions within 100 meters of the source?

We're test-modeling a general case for a Statewide PM10 rule relaxation, so we don't have a lot of site specific details to consider, but we did visit a representative source. The source was located in a small town, with shops and

residences across the street from it; certainly within 100m, probably within 50m. We have to assume that most of the other applicable sources in the State are also located very close to ambient air regions. Modeling for the test-case source showed concentrations were OK at 100m, but twice the NAAQS at 50m. In the past, modeling started at 100m, but ISC couldn't take closer receptors then, and generally, large sources were at least 100m from ambient air locations, so it didn't matter.

So, I'm wondering what HQ thinks today about relying on results within 100m for a regulatory action?

Thanks

Mary Portanova

Region 5

312 353 5954

CC: RTPMAINHUB.INTERNET(NGUYEN-PHUONG,ROBINSON-RANDALL...

Issue:

From: WARREN PETERS

To: WILSON-DEAN

Date: 12/8/99 10:51am

Subject: ISC w/in 100m -Forwarded

Dean -

What do you think? there are 2 questions here.

- 1) Do we believe the model results within 100m.
- 2) What are the policy issues about ambient air and receptors that are very close to the source?

I can address the first one somewhat (but I will take any comments that you might have), but I

can really use your help on the second issue.

thx, warren

C/H Comments:

On question 2 there are no policy restrictions on close in receptors.

On question 1, C/H talked to Mick Daye on his experience. Mick says that the ISC3

includes the ability to place receptors inside of area sources, so there is no longer a problem in believing the close in results. He is not sure what happens with volume sources. If the receptor is within the cavity, ISC3 will not make a calculation.

Mick said that it might be worth looking into the applicability of PRIME. It will more accurately calculate plume rise, as well as its directional capabilities.

FOLLOW UP ANTICIPATED:

MODEL CLEARINGHOUSE RECORDS INFORMATION:

SOURCE NAME: PM10 sources

LOCATION: Region V
SOURCE TYPE: volume
POLLUTANTS: pm10
REGULATION(S) INVOLVED: SIP relaxations
MET. DATA BASES (ON/OFF-SITE): off
MODEL(S) USED: ISC3 PRIME

RECORD OF COMMUNICATION

TELEPHONE CALL MEETING CONFERENCE CALL OTHER
INFORMATION COPIES TO:

Warren

TO: D. Wilson
FROM: Mary Portanova, Region V
DATE: 12/10/99

TIME:

SUBJ: PM 10 volume sources

SUMMARY OF COMMUNICATION:

Follow up to earlier email and conversation with Mick Daye:

The sources are grain elevators and originate when the grain is dumped into bins.

They are clearly volume sources with no plume rise so PRIME will not be of any significant value. What the State (IL) wanted to do was just to a generic OK for

all such grain elevator sources in the State. Mary said that in their test case receptors were place at 50 meters and showed problems with the NAAQS. There are some sources where residences are actually closer than that. There really is no fence line around these sources. Mary said that she will go back to the State and

tell them they will need to look more closely at the modeling and probably can't do

a generic approval.

FOLLOW UP ANTICIPATED:

MODEL CLEARINGHOUSE RECORDS INFORMATION:

SOURCE NAME: All Grain Elevators in the State
LOCATION: IL
SOURCE TYPE: Grain elevators
POLLUTANTS: PM-10
REGULATION(S) INVOLVED:
MET. DATA BASES (ON/OFF-SITE):
MODEL(S) USED: