

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Office of Air Quality Planning and Standards
 Research Triangle Park, NC 27711

TO

Regional Modelers and Stack Height Leads

OFFICE/PHONE**REGION/LAB/LOCATION**

Regions I-X

FROM

Gary Blais

PHONE

919-541-3223

OFFICE

AQMD/OAQPS

DATE

9-23-92

NUMBER OF PAGES TO INCLUDE THIS COVER SHEET

8

SDPMPB FAX NUMBER

FTS 629-5489

COMM: (919) 541-5489

MESSAGE:

Region I: Brian Hennessey, Ian Cohen
 Region II: Robert Kelly
 Region III: Alan Cimorelli, David Campbell
 Region IV: Beverly Hudson, Lewis Nagler
 Region V: Rebecca Calby, Pam Blakley
 Region VI: Quang Nguyen, Gregg Guthrie
 Region VII: Larry Hacker, Richard Daye
 Region VIII: Kevin Golden, Catherine Collins
 Region IX: Colleen McKaughan, Carol Bohnenkamp
 Region X: Robert Wilson, David Bray



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

September 23, 1992

NOTE TO ALL REGIONAL MODELERS & STACK HEIGHT LEADS

SUBJECT: Stack Height Increase Policy Due To Siting of New,
Nearby Structures

We recently received a proposal from Region IV to allow an increase in the GEP stack height at the Dade County Resource Recovery Facility, Dade County, Florida, based on the policy set forth in the Calcagni memorandum dated June 29, 1992 (see attachments). We propose to approve Region IV's proposal, but before we do, we think it appropriate to have a conference call (tentatively set for October 1, 1992 at 11:00 a.m. EST) with all of you so that you can express any concerns you might have. We feel that while the Calcagni memorandum represents a change in the way we have previously treated these cases, it still provides a measure of protection against sources seeking to avoid fluid modeling by building unnecessary structures. This protection can be found in the last sentence of the memorandum which emphasizes that States and EPA still retain the authority to require fluid modeling when they believe it is warranted.

Please contact me at (919) 541-3223 to confirm your participation in the conference call. We will try and be flexible about the date of the call in order to reach a quorum.

A handwritten signature in cursive script, appearing to read "Gary".

Gary Blais
SO₂/Particulate Matter Programs Branch

Attachments

cc: Pat Embrey, OGC
Eric Ginsburg, AQMD
Dean Wilson, TSD



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET, N.E.
ATLANTA, GEORGIA 30365

August 14, 1992

MEMORANDUM:

SUBJECT: Proposal to Allow an Increase in the GEP Stack Height at the Dade County Resource Recovery Facility, Dade County, Florida.

FROM: Lewis H. Nagler
Regional Meteorologist

TO: Gwenn Jacobs
SO2/Particulate Matter Programs Branch

The Dade Resource Recovery Facility (RRF) has submitted a PSD application to add two new boilers and to modify the existing four boilers. Based on emission increases for the proposed project, only NOX and CO are subject to PSD review.

The existing boilers (units 1-4) vent through two 150 foot stacks. Two new 250 foot stacks will be built with dual liners (one boiler per liner). The current stacks must be removed in order to remove the existing control equipment which will be replaced by more stringent emission control devices. SO2 emissions will be reduced from the existing four units from 1574.2 TPY to 858.4. Total emissions after the modifications to units 1-4 and the addition of two new boilers will total 1456.8 TPY.

In addition to the modifications to units 1-4, two new boilers will be added which will vent through a third 250 foot dual liner stack. The building dimensions of the new boiler building will be 146 feet high by 141 long by 136 wide. All stacks are within the influence of this building. The existing boiler building for units 1-4 has a height of 118 feet. GEP for the existing stacks is 295 feet. GEP for the new stacks will be 354 feet.

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In light of the June 29, 1992 memorandum from John Calcagni on credit for stack height increases due to the siting of new nearby structures, my position is that the existing stacks can be given credit for the stack height increase up to the 250 feet proposed. Mr. Calcagni's memorandum was silent on the issue of whether a stack must be built up to the calculated GEP height in order to be given additional stack height credit (note that the existing stacks were constructed to less than the old GEP height). Unless you provide me information to the contrary by September 4, 1992, I will proceed with notifying the Florida DER that the 250 foot stack height can be used in the modeling analysis, rather than the de minimis 213 foot height which our previous guidance would have required. Two figures showing profiles of the Dade RRF complex are enclosed.

enc.

cc: Dean Wilson (MD-14)

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DRAFT

MEMORANDUM

SUBJECT: Response to Proposal to Allow a Stack Height Increase at the Dade County Resource Recovery Facility, Dade County, Florida.

FROM: Gary Blais, Environmental Protection Specialist
SDPMPB, AQMD, OAQPS

TO: Lew Nagler, Regional Meteorologist
Region IV

Background

The Dade County Resource Recovery Facility (RRF) has submitted a Prevention of Significant Deterioration (PSD) application to add two new boilers and to modify the existing four boilers. The existing boilers (units 1-4) vent through two 150 foot stacks. Two new 250 foot stacks will be built with dual liners (one per liner). The current stacks must be removed in order to replace the existing control equipment with more stringent control devices. In addition to the modifications to units 1-4, two new boilers will be added which will vent through a third 250 foot dual liner stack. The building dimensions of the new boiler building will be 146 feet high by 141 feet long by 136 feet wide. All stacks are within the influence of this building. The existing boiler building for units 1-4 is 118 feet high and GEP for the existing stacks is 295 feet. GEP for the new stacks will be 354 feet. Total SO₂ emissions for the facility will be reduced by 117.4 TPY after modifications and additions are made.

Response

In light of the June 29, 1992 memorandum from John Calcagni on credit for stack height increases due to the siting of new nearby structures, you have taken the position that the facility can be given credit for the proposed increase up to 250 feet. After discussions with Eric Ginsburg (Chief, SO₂ Programs Section) and Dennis Atkinson (Model Clearinghouse) we concur with your position. While the Calcagni memo is silent on the issue of whether a stack must be built up to the calculated GEP height in order to receive credit, we feel that the correct interpretation of the memo is that credit for within-formula increases should be allowed. However, protecting the National Ambient Air Quality Standards (NAAQS) and PSD increments is still of paramount importance. Therefore, the facility must be modeled using the downwash option of any approved model at the proposed height (250 feet) so that the resulting emission limit is sufficient to ensure that the source will not cause or contribute to a violation of the NAAQS or PSD increments. If a violation is predicted by the model, either the emission limit must be lowered

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or the stacks increased, possibly all the way up to GEP height (354 feet) to eliminate the violation.

Additionally, keep in mind that the facility's emission limit may have to be revisited some time in the future if the remanded merged gas stream issue is resolved.

If you have any further questions on this or any other Stack Height issue, please contact me at 919-541-3223 as I have taken over responsibility for this area from Gwen Jacobs who has left EPA.

cc: D. Atkinson
E. Ginsburg
J. Irwin
J. Tikvart
D. Wilson

bcc: Regional Modeling Contact, Regions I-III, V-X