

February 2, 1993

MEMORANDUM

SUBJECT: Questions and Answers on Nitrogen Oxides (NOx)
Emissions Policy

FROM: G. T. Helms, Chief
Ozone/Carbon Monoxide Programs Branch (MD-15)

TO: Air Branch Chiefs, Regions I-X

On November 25, 1992, the NOx supplement (57 FR 55620) to the General Preamble (57 FR 13498, April 16, 1992) was published. As the States incorporate this guidance into their rule development process, policy questions have arisen.

In order to address these questions, the various Headquarters and Regional offices have formed a NOx policy work group (a list of work group members is attached). In order to disseminate the group's consensus on these questions, I will be issuing a series of questions and answers. The first of these is attached. I ask that you provide this information to the appropriate State and local agencies in your Region. This is intended to guide you and your States during the development of NOx rules. It is only guidance and deviations are always permitted so long as adequate technical rationale is contained in the State plan.

Staff questions on this material may be directed to Doug Grano at (919) 541-3292.

Attachment

cc: Air Division Directors, Regions I-X
NOx Policy Work Group Members
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Interpretation of NOx Policy

1. Q: What are the definitions of "credible" and "available" modeling as used in section 2.6.1 of the NOx supplement to the General Preamble?

A: "Credible" means modeling that is consistent with Environmental Protection Agency (EPA) guidance. Application of the urban airshed model (UAM) should be consistent with techniques specified in the EPA document, "Guideline on Air Quality Models (Revised)" and related guidance. Further, for consideration of the effects of NOx emissions reductions on the Ozone Transport Region as a whole, "credible" modeling includes use of EPA's "Regional Ozone Modeling for Northeast Transport" study (June 1991). When more recent regional oxidant model and/or UAM studies have been completed and are available, they should be used. The EPA may, on a case-by-case basis, approve alternate photochemical grid models following the procedures outlined in EPA's "Guideline on Air Quality Models."

Less sophisticated models, such as Empirical Kinetic Modeling Approach, lack the detailed treatment and consideration of physical orientation of NOx sources and dispersion of their plumes. Further, since trajectory models only address a limited number of trajectories, they cannot assess whether NOx control contributes to attainment at all locations in an ozone nonattainment area. Therefore, such models are insufficient and not "credible" for the section 182(f) demonstration.

"Available" means the modeling results are publicly available for review.

2. Q: For purposes of installation of control equipment after May 31, 1995, could a State establish the post-May 31, 1995 schedule:

- in the initial submittal of the RACT rule?
- at a later date consistent with criteria specified in the initial RACT rule? or
- in a subsequent SIP revision?

A: As described in section 2.6.2 of the NOx supplement to the General Preamble, if a State demonstrates that installation of all controls by May 31, 1995 is not practicable for all the affected sources, EPA would consider approving rules that define RACT as a phased program extending beyond that date for those sources. The EPA is in the process of developing guidance to

define such "impracticable" situations. The guidance below describes the regulatory process to manage these cases.

In such cases, the rule should define RACT itself as a stage-by-stage program of measures which are implemented over time. The portion of the schedule that can practically be implemented by May 31, 1995 must be implemented by that date. The other portions of the schedule leading toward (and including) final installation of controls must be implemented as soon as those steps become practicable (and, hence, will supplement the initial RACT at those later times).

Alternatively, the State may establish criteria in the initial or in a revised RACT rule that set a replicable procedure for the State to determine, on a source-specific basis, where final installation of controls may occur after May 31, 1995. The criteria must be consistent with EPA guidance on this subject. Replicable procedure is described in EPA's emissions trading policy statement (51 FR 43850, December 4, 1986).

Where a State initially adopted a RACT rule that required installation of all controls by May 31, 1995, the State could, in cases that are consistent with EPA guidance, revise the rule at a later time. The revised rule could allow installation of certain controls after May 31, 1995 on a source-specific basis. Under section 110(l), EPA could consider approval of the revision as long as the revision provides for implementing the controls as soon as practicable and does not interfere with reasonable further progress or attainment.

3. Q: When should EPA approve a NO_x RACT committal State implementation plan (SIP)?

A: The NO_x RACT committal SIP must be consistent with requirements outlined in the July 22, 1992 memorandum from Michael Shapiro to the Regional Air Directors and should include:

1. An introductory section describing the reason for the committal SIP instead of a full SIP submittal.
2. Documentation that credible photochemical grid modeling is not available or did not consider the effects of NO_x reductions.
3. Identification of resources to complete the photochemical grid modeling.
4. A schedule outlining the milestones that have been and

will be achieved toward completion of the modeling activities and the NOx RACT rules. The schedule should include milestones and completion dates for the following:

- completion date of the modeling protocol(s);
- completion date of modeling runs in each nonattainment area;
- submittal of final modeling results to EPA;
- submittal of draft NOx RACT rules to EPA for comment;
- dates for public notice and hearing on the rules; and
- date for final submittal of the rules to EPA (no later than 12 months after EPA's final approval of the committal SIP).

5. The schedule should also include the submittal to EPA of periodic (at least quarterly) progress reports on the modeling and NOx RACT rule development showing that the program is on schedule.

4. Q: Existing solid waste incineration units will be regulated under section 129(b) of the Clean Air Act (Act) on a later timeframe than the reasonably available control technology (RACT) requirement. Can the RACT rules be delayed in order to be consistent with the section 129 rulemaking?

A: Section 129 of the Act requires that NOx limits be set for new and existing solid waste incinerators. Section 129(b)(2) requires that these limits go into effect no later than 5 years after the guidelines are promulgated by EPA. As these guidelines have not yet been proposed, it is unlikely that the guidelines will become final until after 1993. Thus, the section 129 NOx limits may not be effective until sometime after 1998.

States want to avoid adopting NOx RACT limits that are effective in 1995, knowing that potentially conflicting section 129 NOx limits may be required only a few years later for the same units. This issue is similar to a general concern for any major NOx source category: the 1995 RACT limits might conflict with SIP limits that are determined necessary after completion of an area's 1994 attainment demonstration. The post-attainment demonstration controls would be scheduled for installation sometime prior to the attainment deadline (e.g., 1998 for serious nonattainment areas).

A State must meet all requirements of the Act. Therefore, EPA cannot approve a State strategy to defer the RACT requirement so that it might coincide with control decisions under section 129; nor can EPA guarantee that a NOx RACT limit would also meet a section 129 limit. However, it now appears that the timing of the section 129 requirements may coincide with the timing for installation of controls resulting from the post-attainment demonstration. That is, State decisions on control requirements

for solid waste incinerators are likely to be necessary in 1994 due to both section 129 and the attainment demonstration.

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