

MEMORANDUM

SUBJECT: Nitrogen Oxides (NOx) Questions from Ohio EPA

FROM: Tom Helms, Chief  
Ozone/Carbon Monoxide Programs Branch

TO: Air Enforcement Branch  
Region V

This memorandum addresses the NOx reasonably available control technology (RACT) issues raised in a November 30, 1993 memorandum from Richard Schleyer, EPA Region V, to John Silvasi, Office of Air Quality Planning and Standards. These issues were discussed and resolved by the NOx Work Group.

Question 1:

Can the NOx RACT rules be made applicable only during the summer months since ozone is a summer problem? If not, why not?

Answer 1:

The EPA's RACT guidance for volatile organic compounds (VOC) states that seasonal controls are generally not allowed (EPA clarification to Appendix D of the November 24, 1987 Federal Register, "Issues Relating to VOC Regulations Cutpoints, Deficiencies, and Deviations," revised 1-1-90). As stated in the NOx Supplement to the General Preamble (57 FR 55625, November 25, 1992), the VOC RACT guidance is generally applicable to NOx RACT. Thus, the limitation on seasonal controls also applies to NOx RACT.

The EPA's definition of RACT is "The lowest emission limitation that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility" (44 FR 53762, September 17, 1979). Thus, RACT is not generally a function of season or other temporal factors. There are limited exceptions, however, in the VOC and NOx programs where seasonal controls are allowed. For example, EPA has developed RACT guidance for seasonal controls concerning cutback asphalt (VOC) and fuel switching (NOx).

Question 2:

Comments have been received that a 30-day rolling average should be allowed using stack tests. The Ohio EPA

is not aware of any method other than use of a continuous emissions monitor (CEM) where a 30-day rolling average is possible. Is there any other method possible?

Answer 2:

This issue should be addressed in the context of the enhanced compliance monitoring rulemaking, which is in process.

Question 3:

If a source is subject to a federally enforceable permit to install, which requires best available control technology (BACT), would the facility have to submit a RACT study or meet any of the other requirements contained in Ohio's NOx RACT rules?

Answer 3:

RACT requirements can, in some cases, be more stringent than the lowest achievable emission rates (LAER) or BACT (see February 28, 1990 memorandum from John Calcagni to Regional Offices). Therefore, where a source has already installed BACT or LAER, the State would still need to complete an analysis to show that BACT or LAER is at least as stringent as RACT in that case. If RACT is more stringent, then the RACT requirements would apply.

Question 4:

Is one-source trading allowed? For example, if a source uses selective non-catalytic reduction to control NOx, could the source simply turn-on and turn-off this control device, as necessary, to comply with NOx RACT?

Answer 4:

Once a State sets a NOx RACT emission rate limit for a source category, individual sources are generally free to meet that limit in a variety of ways. Where a State adopts a NOx RACT emission rate limit with a long averaging time, such as 30 days, a source with a continuous emission monitor could conceivably turn-on and turn-off very stringent controls on, for example, alternate days and still meet the RACT limit. States should, however, avoid adopting RACT rules which could result in sources maximizing their emissions on high ozone potential days, thus jeopardizing attainment.

Questions 5 & 9:

Will partial switching to natural gas (co-firing gas and coal) need a SIP revision? Are site-specific SIP revisions needed if a source is complying with NOx RACT

using fuel switching?

Answer 5:

Individual sources that switch to natural gas do not need source-specific SIP revisions as long as the statewide NOx RACT rules allow such switching and are consistent with EPA guidance (July 30, 1993 memorandum from Michael H. Shapiro to Regional Offices on fuel switching to meet the NOx RACT requirements). If there is no such statewide rule, then a SIP revision would be needed to meet the NOx RACT requirements.

Question 6:

Can major NOx sources that only operate outside the ozone season be exempt from NOx RACT?

Answer 6:

The RACT requirement applies to major stationary sources, considering potential annual emissions. However, major NOx sources which are prohibited from operating during the ozone season might qualify for an exemption from the NOx requirements under section 182(f) of the amended Act. The EPA would consider a petition requesting such an exemption.

Question 7:

Will compliance schedule changes up to April 1, 1996 be allowed without a SIP revision?

Answer 7:

Sources that do not meet milestones contained in the State's NOx RACT rule would be subject to enforcement actions.

Question 8:

Is switching from (1) coal to oil or (2) oil to natural gas allowed under the fuel switching program? If yes, what limits would apply in either case?

Answer 8:

The EPA's guidance on fuel switching to meet NOx RACT (referenced in answer 5) is not limited to coal to natural gas switches. That guidance would need to be applied in each case to determine the applicable emission limits.

Question 10:

Are site-specific SIP revisions needed if a source is complying with NOx RACT using an emissions trading program?

Answer 10:

Individual sources that comply with NOx RACT through an emissions trading program do not need source-specific SIP revisions as long as the statewide NOx RACT rules provide for such a trading program and are consistent with EPA guidance (reference forthcoming NOx trading guidance memo). If there is no such statewide rule, then a SIP revision would be needed to meet the NOx RACT requirements.

cc: Air Branch Chiefs  
NOx Work Group