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September 18, 1989

MEMORANDUM

SUBJECT: Request for Clarification of Policy Regarding the "Net Emissions Increase"

FROM: John Calcagni, Director
Air Quality Management Division (MD-15)

TO: William B. Hathaway, Director
Air, Pesticides, and Toxics Division (6T)

This is in response to your August 10, 1989 memorandum regarding guidance on several issues related to the calculation of "net emissions increase" (as defined in 40 CFR 52.21(b)(3)(i)) for prevention of significant deterioration (PSD) applicability purposes. These issues arose from a PSD pre-application package submitted to Region VI by Conoco Inc. of Westlake, Louisiana.

As was discussed in an August 17, 1989 conference call between Region VI staff and members of the New Source Review Section, our response provides general guidance on the four basic netting questions raised in your memorandum, as opposed to a more detailed response specific to the Conoco application.

Question 1:

Which of the following approaches is correct for determining if a contemporaneous net emissions increase has occurred at an existing major source?

A. Not including contemporaneous emissions unless the project emissions exceed PSD significance levels for a pollutant.

B. Using a literal interpretation of the definition of "net emissions increase" as contained in 40 CFR 52.21(b)(3)(i) which suggests that, even if the project's emissions do not exceed the PSD significance levels, a series of less than significant changes would still be accumulated.

Response:

Although the definition of "net emissions increase" could be interpreted differently, the Environmental Protection Agency's (EPA's) historic policy has been not to consider accumulated emissions from a series of small (i.e., less than significant) emissions increases if the emissions increase from the proposed modification to the source is, standing alone without regard to any

decreases, less than significant. In other words, the netting calculus

(the summation of contemporaneous emissions increases and decreases) is not triggered unless there will be a significant emissions increase associated with the proposed modification. This policy was discussed in detail in a 1983 EPA memorandum (copy attached) titled "Net Emission Increases Under PSD." In October 1988 the Policy and Guidance Section of the Stationary Source Compliance Division (SSCD) sent a memorandum (copy attached) to Region V restating the policy and indicating that it applied only to applicability determinations made under PSD and did not apply to nonattainment rules. The memorandum also indicated that SSCD was reconsidering the policy as it applies to PSD. We have, however, discussed this matter with SSCD and understand that there are no plans to revise the policy.

This office has reviewed the considerations (as discussed in the 1983 memorandum) which led to the policy and continue to find them to be reasonable and appropriate. For example, it would not be sensible to subject a small increase (e.g., 2 tons per year [tpy]) to a full PSD review because of an unrelated 39 tons per year increase 3 years earlier. The PSD reviews of such small emissions could place a significant resource burden on both applicants and review agencies and would likely result in minimal, if any, emissions reductions or air quality benefits from the application of BACT. Conse- quently, I reaffirm that EPA's current policy is not to aggregate less than significant increases at a major source when the emissions increase from a proposed modification is less than significant. Of course, attempts by applicants to avoid PSD review by splitting a modification into two or more minor modifications constitutes circumvention of the PSD requirements. Two or more related minor changes over a short period of time should be studied for possible circumvention.

Question 2:

Once PSD review is triggered for one pollutant, does the triggering mechanism (i.e., as described in question 1) remain the same for other pollutants or is the net contemporaneous emissions increase for these other pollutants compared to the PSD significance levels? In other words, if PSD review is triggered for one pollutant, is the source then required to consider all contemporaneous emissions changes for the other pollutants when determining applicability, even if new emissions from the proposed project will be less than significant?

Response:

No. The criteria used to determine if a significant net emissions increase has occurred from a proposed modification at an existing major source are applied on a pollutant-by-pollutant basis.

For example, a major source experienced insignificant increases of NOx (30 tpy) and SO2 (15 tpy) 2 years ago, and a decrease of SO2 (50 tpy) 3 years ago. The source now proposes to add a new process unit with an associated emissions increase of 35 tpy NOx and 80 tpy SO2. For SO2, the proposed 80 tpy increase from the modification by itself (before any netting) is significant,

so we then determine the contemporaneous net emissions change, the algebraic sum of (-50)+(15)+(80), which equals +45 tpy. Therefore, the proposed modification is major and a PSD review for SO2 is required. However, the NOx increase from the proposed modification is by itself less than significant. Consequently, netting is not performed for NOx even though the modification is major for SO2.

Question 3:

Is the approach of comparing new, allowable emissions to old, actual emissions still appropriate for determining PSD applicability?

Response:

Under the PSD regulations, whether a physical change or change in the method of operation at a source will result in a "net emissions increase"

requires a comparison of the "actual emissions" of the source before and after the change. For an existing emissions unit at a source, "actual emissions" before the change equal the average rate in tons per year at which the unit actually emitted the pollutant during the 2-year period (or more representa- tive period) which precedes the change [see 40 CFR 52.21(b)(21)(ii)]. Where the change will affect the normal operations of an existing emissions unit (as in the case of a change which could result in increased use of the unit), "actual emissions" after the change must be assumed to be equal to "potential to emit." The PSD regulations are quite clear regarding such circumstances [40 CFR 52.21(b)(21)(iv)]:

> For any emissions unit that has not yet begun normal operations on the particular date, actual emissions shall equal the potential to emit of the unit on that date. (Emphasis added.)

Where "allowable emissions" are the same as or less than the "potential to emit" for an emissions unit, "allowable emissions" may be used to define the "actual emissions" of that unit after the change. Consequently, for determining PSD applicability, the comparison of prior "actual" versus new "potential" emissions (or "allowable" where appropriate) is the correct methodology to use.

The comparison of prior "actual" to future "potential" emissions is made on a unit-by-unit basis for all emissions units at the source that will be affected by the change. It is done for the emissions unit(s) undergoing the physical change or change in the method of operation and also for any other units at which normal operations could be affected by the change at the source. This, for example, includes a review for possible emissions increases at process-related emissions units due to a physical change which removed a bottleneck at only one of the units.

Question 4:

When determining contemporaneous increases and decreases, are all emissions points at the source reviewed, or only those emissions points that

have had emissions changes incorporated into State permits in terms of actual emissions changes at the beginning and end of the contemporaneous period to determine the contemporaneous emissions changes?

Response:

Generally all emissions points at the source (including fugitive emissions where applicable) are reviewed for emissions changes, including those points with emissions changes that have not been incorporated into permits. The PSD regulations at 40 CFR 52.21(b)(3)(i)(b) require that "any other increases and decreases in actual emissions at the source that are contemporaneous with the particular change and are otherwise creditable" be included in the calculation of "net emissions increase." (Emphasis added.)

In regard to emissions changes incorporated into permits, the regulations at 40 CFR 52.21(b)(3)(iii) provide that a contemporaneous increase or decrease (to the extent the decrease is federally enforceable) is creditable only if the relevant reviewing authority has not relied on it in issuing a PSD permit for the source, and the permit is still in effect when the increase in actual emissions from the particular change occurs. A reviewing authority relies on an increase or decrease when, after taking the increase or decrease into account, it concludes that the proposed project would not cause or contribute to a violation of an increment or ambient standard. In other words, an emissions change at an emissions point which was considered in the issuance of a PSD permit for the source is not available to be used in subsequent netting calculations. For example, an emission change incorporated in a source's PSD permit (State or Federal) would not be available to be used as a contemporaneous increase or decrease in a subsequent netting calculation.

On the other hand, where an emissions change was not relied upon in

issuing a PSD permit for the source, the regulations make no distinction between an emissions point with an emissions change incorporated into a State permit and any other emissions point at the source when defining an otherwise creditable contemporaneous change. Consequently, except for emissions changes considered in issuing a PSD permit, all emissions points at the source are reviewed in terms of actual emissions changes to determine the contemporaneous emissions changes at a source, including those emissions points that have not had emissions changes incorporated into State permits. Although emissions changes incorporated into State permits do not affect which emissions points must be considered, conditions in State permits (if federally enforceable) may be used to define an emissions unit's "allowable emissions."

If you have any questions in regard to this matter, please contact David Solomon of the New Source Review Section at FTS 629-5375.

Attachments

cc: NSR Contacts