

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
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November 19, 1992

Mr. William R. Campbell
Executive Director
Texas Air Control Board
12124 Park 35 Circle
Austin, Texas 78753

Re: Interim guidance on New Source Review (NSR) Questions Raised in
Letters Dated September 9 and 24, 1992.

Dear Mr. Campbell:

This is in response to letters to my staff dated September 9 and 24, 1992, from Ms. Karen Olson and Mr. Kerry Drake respectively, of the Permits Division. These letters raised significant questions and issues related to the new source permitting in nonattainment areas as required by the Clean Air Act Amendments (CAAA) of 1990. As discussed during a conference call September 30, 1992, and an October 8, 1992, meeting in Dallas, we are providing this initial response which addresses most of the items of concern. We will, however, be furnishing you with any additional guidance to remaining items which are identified in a subsequent letter.

The Environmental Protection Agency (EPA) has provided many of the Agency's interpretations of the new Part D NSR requirements in the General Preamble to Title I (57 FR 13498) dated April 16, 1992. We wish to commend the State of Texas for its action in adopting revisions to its NSR rules consistent with Title I of the 1990 CAAA. However, it is not surprising that in a program of this magnitude some ambiguities remain. At this time, we are not expecting any additional national guidance in the near future. However, we agree with you that we jointly need some basis to proceed between the November 15, 1992, effective date of your nonattainment NSR permitting regulations and any additional direction we may receive at the national level. Therefore, we hope to use this and subsequent letters to articulate the interim guidance we will follow in the absence of national guidance. After national guidance is issued, it may be necessary to revise this interim guidance to conform to such national guidance. Any application which has been submitted and determined to be complete after the issuance of final national guidance, may be subject to the interpretations of such final guidance.

Outlined below is our interim guidance in response to the questions raised by the Texas Air Control Board (TACB) in its letters dated September 9 and 24, 1992.

1. Does any increase in emissions at a major source trigger the de minimis threshold test? Is there a lower cutoff?

There is a concern that the current de minimis rule would be onerous and not practical for certain small changes such as adding a valve, pump, or small boiler. The TACB has suggested that an individual change of less than 5 tons per year (tpy) increase not be required to undergo nonattainment review nor should it trigger the requirement to perform de minimis netting. If the proposed increase equals or exceeds 5 tpy, only those increases and decreases; of 1 tpy or greater will be included in the de minimis test.

We appreciate the concern that a literal interpretation of the definition of de minimis, as contained in Section 182(c)(6) of the Clean Air Act (CAA), could be potentially onerous to the States, the individual permit applicants, and EPA. However, our concern with setting a de minimis threshold is that projects that would aggregate to 25 tpy or greater should in no way become excluded from the NSR permitting requirements. In order to ensure this, we would support in this interim guidance the following two step approach. 1) we would agree with an interim policy of setting a de minimis threshold at 5 tpy for purposes of starting the accounting process for the netting calculation. If a project's emissions would be less than 5 tpy, then the company would not be subject to the 5 year de minimis threshold test, provided that de minimis netting is not required in Step 2 below. However, the source would be required to keep track of the emissions changes. The 5 year de minimis threshold test would only be applied when the project's emissions equal or exceed 5 tpy. Once this 5 tpy de minimis level would be exceeded, then all emissions increases and decreases associated with a physical change or change in the method of operation would be included in the test. The source would then be subject to the nonattainment permit requirements if the net emission increase is greater than 25 tpy. 2) The second test is as follows. If the aggregate of emission increases and decreases after November 15, 1992, become greater than 25 tpy (excluding projects for which an application was received before November 15, 1992, and was subsequently determined to be complete), then the source would be subject to performing the 5 year de minimis threshold test. If the accumulation of all emission increases and decreases over the contemporaneous timeframe was determined greater than 25 tpy, then the nonattainment NSR requirements would be applicable.

Your staff has noted concern with tracking the accumulation of emissions for Step 2. One way to implement the policy outlined could be to have the source submit a certification with the application for a permit or exemption. This certificate would state that the increase from the project does not exceed 5 tpy and the accumulation of increases and decreases since November 15, 1992, does not exceed 25 tpy. The State could then use the annual emission statements that companies will have to submit starting in 1993 as a check that no source has had net increases more than 25 tpy without going through nonattainment New Source Review.

Neither of these approaches allow for excluding increases of 1 tpy or less from emissions tracking. However, it does allow for exclusion of routine repair, replacement or maintenance which may be excluded from review under the definition of major modification.

Enclosed are example calculations of how the above described netting would work.

2. What is the exact definition of the 5 year period for the de minimis threshold test?

In the September 9, 1992, letter, TACB proposed to use the same definition as found in the Prevention of Significant Deterioration (PSD)/NSR regulations prior to November 15, 1992, which specify that the contemporaneous period begins 5 years prior to commencement of construction and ends when the proposed project begins operation: However, in section 101.1 of TACB's revised regulations, TACB defined the 5 year period to be 5 consecutive calendar years which includes the year of the project and the 4 previous years, which is consistent with the statutory definition of de minimis emissions. As was discussed on October 8, 1992, TACB would need to revise its regulation to be consistent with its proposal to have the 5 year period under the nonattainment NSR regulations identical to the 5 year period for PSD netting. We agree that Texas could use either definition of the 5 year period. This is premised on our belief that the contemporaneous timeframe for netting under the PSD program (40 CFR 52-21 (b)(3)(ii)) is as stringent or more stringent than the definition in Section 182(c)(6) of the CAA. Both the definition in Section 182 (c) (6) and the PSD definition in 52.21(b)(3)(ii) specify a 5 year timeframe including the period when the increase or particular change occurs.

3. Do major sources, such as asphalt concrete plants, that move often within nonattainment areas, as well as in and out of nonattainment areas, require a nonattainment permit each time they move?

Portable sources currently in an ozone nonattainment area may relocate within the same nonattainment area without obtaining a nonattainment permit, provided that no physical change or change in the method of operation occurs which results in an emissions increase. A source relocating from outside the nonattainment area must obtain a permit if it has not been previously permitted within the area and is not included in the emissions inventory for the nonattainment area. A nonattainment permit is also required if a source relocates from one nonattainment area to another nonattainment area.

This guidance is not meant to exempt the relocation of sources that are not generally considered portable from nonattainment NSR. For example, moving a painting operation from one part of a nonattainment area to another would result in review.

4. TACB states that the definition of major source in serious and severe ozone nonattainment areas in Sections 182 (c) and (d) could be interpreted to include fugitive emissions. They would like to extend this definition to marginal and moderate ozone nonattainment areas for the purposes of Consistency.

On October 8, 1992, TACB indicated that it would retain their existing definition of a major facility/stationary source. Its revised NSR regulations presently do not require fugitive emissions to be considered in determining applicability unless the source belongs to certain categories specified in the regulation. This is an acceptable approach.

5. For sources which trigger review for nitrogen oxides (NO_x) under both nonattainment review and PSD, TACB proposes to conduct a combined review which will include nonattainment review enhanced by NO_x increment modeling.

This is the type of review that we anticipated would be performed and appears to be a reasonable and correct approach. As agreed upon October 8, 1992, all applicable requirements of the PSD review and nonattainment review must be met.

6. What are applicants and permit engineers expected to do when implementing lowest achievable emission rate (LAER)?

TACB mentioned the need for certain specified improvements in the RACT/BACT/LAER Clearinghouse, including the need for specifying emission levels in consistent units (i.e. lb/mmmbtu, ppm, gr/dscf, etc.).

On October 8, 1992, it was agreed that the LAER determination would include a review of the RACT/BACT/LAER Clearinghouse. The review of the clearinghouse information would serve as a floor for the LAER determination. However, at this time the Clearinghouse is not considered comprehensive enough to be an adequate reference by itself for the ultimate determination of LAER. Ultimately LAER should be decided based on the technical evaluation and experience of the State permit engineer in conjunction with consideration of comments from EPA and the public. This approach should ensure that LAER is determined consistent with the regulatory definition.

7. How and to what depth must the alternative site analysis be performed?

TACB had suggested that an applicant include an alternative site analysis in its permit application, which TACB would maintain in the permit file.

In the absence of national guidance, we support development by TACB of reasonable interim procedures that can be implemented. Such interim procedures should include an appropriate level of technical review (as determined by the State) and ensure that comments from the public and EPA are adequately addressed for the public record.

At the meeting in Dallas on October 8, 1992, Ms. Karen Olson provided us material on the Texas Enterprise Zone Program from the Texas Department of Commerce. We are continuing to explore potential uses of the established Enterprise Zones Program for satisfying the alternative site analysis requirements. We will respond separately to you on this question.

8. When a modification exceeds de minimis level, is only the current project to be offset, or is the entire contemporaneous increase to be offset? If the offset provided by the applicant is in excess of the required amount, can the balance be used for future offsets?

In the absence of written national guidance on this subject, we are interpreting that only emissions associated with the specific project that results in the de minimis level being triggered are required to be offset. It is important to note that any emission increases occurring since the 1990 emission baseline must appear in future reasonable further progress tracking, be accounted for in the 15 percent requirement and be accounted for in the

attainment demonstration. It is in the State's discretion to require a more restrictive interpretation (such as offsetting the entire net emissions increase) during the interim in order to further progress toward attainment.

In regard to remaining excess offset credits, they would remain creditable if they continued to meet all criteria for creditable emissions reductions. This excess could also be deposited (or retained if previously deposited) in an approved bank.

9. Several questions were raised concerning the internal offsetting provisions for serious ozone nonattainment areas in Section 182 (c)(7) and (8) of the Act. These questions include: (A) What is an internal offset? (a) If an internal offset is provided would not the modification have been de minimis in the first place? (C) Would an internal offset be considered in future de minimis threshold tests? (D) Do these rules apply for serious areas only? (2) Since TACB proposes to do netting consistent with PSD does that eliminate this option?

National guidance does not presently exist to address the issue of internal offsets. Since TACB proposes to use the "Plant wide" source definition (as opposed to a "dual source" definition), internal offsets would be accounted for in the source wide netting under the de minimis rule in Section 182(c)(6) of the CAA.

Because the use of internal offsets are optional under Sections 182 (c) (7) and (8) of the CAA, and EPA has not issued national guidance concerning the use of internal offsets, TACB has agreed not to implement the provisions of Sections 182 (c) (7) and (8) which relate to internal offsets during the interim period covered by this guidance. We agree with this approach since the State's regulation does not define the term internal offsets or the extent of its use.

In connection with this matter, we note that footnote 2 of Table I (definition of "major modification") of TACB is revised definitions provides that best available control technology (BACT) may be used as an alternative to LAER in severe ozone nonattainment areas if an offset ratio of 1.3 to 1 is used. This would be contrary to the above discussion, and to the 1990 CAAA. Footnote 2 was apparently included to incorporate the 1.3 to 1 internal offset provision in Section 182(c)(8), which provides relief from the requirement to utilize LAER at a source whose potential emissions are greater than 100 tpy, if an internal

offset ratio of 1.3 to 1 is used. It was agreed on October 8, 1992, that TACB would delete Footnote 2, consistent with the previous paragraph in which TACB agreed not to implement the internal offset provisions.

10. What is the status of pre-1990 baseline increases and reductions in the context of the de minimis threshold test and for offsetting? TACB expands this question further in its letter dated September 24, 1992.

Pre-1990 emissions increases and decreases are creditable for the purpose of determining applicability (i.e. netting). Under this interim policy, the period for which netting would be performed would be consistent with the PSD definition. (See response to question 2). Pre-1990 decreases (with the exception of shutdowns or curtailment of production or operating hours) may be used for the purposes of satisfying general offset requirements only if they are federally enforceable prior to 1990, are still federally enforceable, and are carried over as growth in an approved post-1990 attainment demonstration. Use of prior shutdowns before an approved attainment demonstration is in place, will be addressed by EPA in a separate response.

Clearly, if the State wishes, it can be more stringent by not allowing pre-1990 emission decreases to be used for offsets. This approach may be especially useful in instances where pre-1990 credits cannot be well accounted for in the Rate of Progress State Implementation Plan (SIP)

11. Is there a time frame for offset expiration?

In general, offsets can continue to exist as long as they are accounted for in each subsequent emissions inventory. They expire if they are used, or relied upon, in issuing a permit for a major stationary source or major modification in a nonattainment area, or are used in a demonstration of reasonable further progress.

The State may include an expiration date in its SIP to ensure effective management of the offsets. For example, TACB's proposed banking rule would require each individually banked offset to expire 5 years after date the reduction occurs, if it is not used. The rule also provides that a particular banked reduction will depreciate by 3% each year that it remains in the bank. EPA is supportive of the approach Texas has taken in its proposed banking rule to limit the lifetime of the offsets and to allow for an annual depreciation.

12. NO_x is a precursor for both ozone and particulate matter less than 10 microns (PM-10). What defines a major source for a precursor in this case? Will NO_x be offset for ozone and PM-10?

With reference to ozone, NO_x will be treated just like volatile organic compounds (VOC) except in transport regions where the major source threshold will be 100 tpy. (There are, of course, no transport regions in Region 6.) NO_x Will be regulated as a precursor for PM-10 only in certain sections of the country where EPA determines, in conjunction with the State, that precursors contribute significantly to the nonattainment area problem. (Texas is not considered to be one of those areas at present).

13. What are the precursors to PM-10?

As stated in the April 2, 1991, memorandum from John Calcagni (Director, Air Quality Management Division) to the Regional Air Division Directors, entitled PM-10 Moderate Area SIP Guidance: Final Staff Work Product PM-10 precursors are defined to include volatile organic compounds which form secondary organic compounds, sulfur dioxide which forms sulfate compounds, and nitrogen oxides which form nitrate compounds (pg. 7). In general, EPA believes that PM-10 precursor emissions will not significantly contribute to PM-10 ambient levels except in a few major metropolitan areas (e.g., Los Angeles, Salt Lake County, Utah County, Denver, San Joaquin Valley) (pg. 10). No areas in Texas were specifically mentioned in the Staff Work Product. See also the discussion in Item 12 above.

Additional question from TACB's letter dated September 24, 1992:

14. once a project has been offset, will the amount that is offset be relied upon in future determinations of the contemporaneous net increase? Restated, will the slate be partially or totally "wiped clean" (depending on whether or not the current project is offset, or the entire contemporaneous increase is offset)?

First, recall that netting credits cannot be acquired outside the source for which the permit application is submitted. If a reduction has been used only as a netting credit and the source has netted out of review, then the credit is available as long as it remains in the contemporaneous time period.

If an emission reduction at a source is used as an external offset for another source, that reduction can no longer be relied upon for netting purposes at the first source. Restated, the increase from the proposed project and the project offset

would be wiped off the slate for future netting and offset transactions. In addition, if the State chooses to offset any additional contemporaneous increases and decreases, such changes are also wiped off the slate for future netting transactions. The remaining emission increases and decreases within the 5 year contemporaneous timeframe would continue to be included in future netting transactions.

If a reduction meets all the criteria for a creditable offset and only part is used in an offset transaction, the unused part can be applied to future offsets, if proper accounting and federal enforceability are ensured. An example would be as follows:

Source "A", a major stationary source in a nonattainment area, applies for a permit to modify. Source "B" shuts down operations that produce 250 tpy of VOC reductions. The emissions increase from the proposed project (excluding contemporaneous increases and decreases), after application of LAER, is 150 tpy, and the overall net emissions increase exceeds de minimis. The 250 tpy reduction from source "B" is made federally enforceable and used to offset the 150 tpy increase from source "A". If the sources are-located in a severe ozone nonattainment area, the required offset ratio is 1.3 to 1 or $1.3 \times 150 \text{ tpy} = 195 \text{ tpy}$. The difference of 55 tpy remains creditable as an offset as long as it meets the criteria identified in item # 11, above. Of course, the State may choose to offset any contemporaneous increases and decreases in addition to the project increase consistent with the approved SIP.

We appreciate this opportunity to review these issues with you. We will respond to the remaining item you have identified as quickly as possible.

If you have any questions, please contact me at (214) 655-7200, Mr. Gerald Fontenot, Ms. Jole C. Luehrs, Mr. Stanley M. Spruiell, or Mr. Thomas H. Diggs, Air Programs Branch Staff, at (214) 655-7205, or Ms. Lucinda S. Watson, Office of Regional Counsel at (214) 655-8071.

Sincerely yours,

Stanley Meiburg
Director
Air, Pesticides and Toxics, Division (6T)

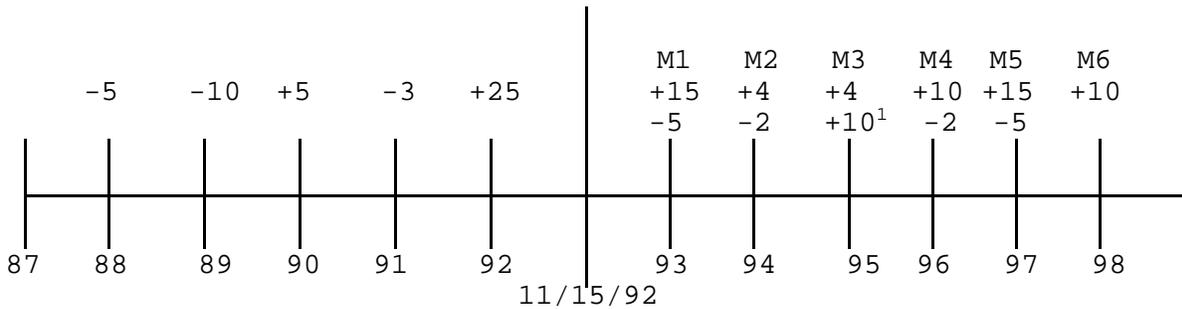
Enclosure

Enclosure

The TACB submitted letters dated September 9 and 24, 1992 posing questions regarding nonattainment NSR. Shown below are examples of modification scenarios that demonstrate our response to Item I of this letter.

Netting and offset calculations for nonattainment review (emissions represent VOC in a severe ozone (O₃) nonattainment area)

EXAMPLE 1.



MODIFICATION M1:

Step 1: Project increase is +15 tons per year (tpy) > 5 tpy.
Netting is required.

$$\begin{aligned} \text{Net emissions increase (NEI)} &= \text{NEI} = +15 + (-5+25-3+5-10-5) \\ &= +15 + (+7) = +22 \text{ tpy} \end{aligned}$$

NEI < 25 tpy. Nonattainment review is not applicable.

MODIFICATION M2:

Step 1: Project increase is +4 tpy < 5 tpy.
Step 2: Net Changes after 11/15/92 = +4-2+15-5=12 tpy<25 tpy.

Netting is not required.

MODIFICATION M3:

Step 1: Project increase is +4 tpy < 5 tpy.
Step 2: Net Changes after 11/15/92=+4+4-2+15-5=+16 tpy<25 tpy.

Netting is not required.

¹Increase is authorized by permit whose complete application was filed before 11/15/92.

MODIFICATION M4:

Step 1: Project increase is +10 tpy > 5 tpy. Netting is required.

NEI = +10 + (-2+4+10+4-2+15-5+25-3) = +10 + (+46) = +56 tpy
NEI > 25 tpy. Nonattainment review is required.

Total Emissions to be Offset = +10 + (-2+4+4-2+15-5,) = +10 + 14
= +24 tpy²

The required offset ratio in a severe O₃ nonattainment area is
1.3:1 or 1.3 x 24 = 31.2 tpy.

All increases which occur after 11/15/92 (except for the 10 tpy
increase which was authorized in an application before that date)
are relied upon in issuing Modification M4. They may not be used
in future netting or for future offsets.

MODIFICATION M5:

Step 1: Project increase is +15 tpy > 5 tpy. Netting is required.

NEI = +15 + (-5+10+25) = +15 + (+30) = +45 tpy
NEI > 25 tpy. Nonattainment review is required.

Total Emissions to be Offset = +15 + (-5) = +15 - 5 = +10 tpy.
The required offset ratio in a severe O₃ nonattainment area is
1.3:1 or 1.3 x 10 = 13 tpy.

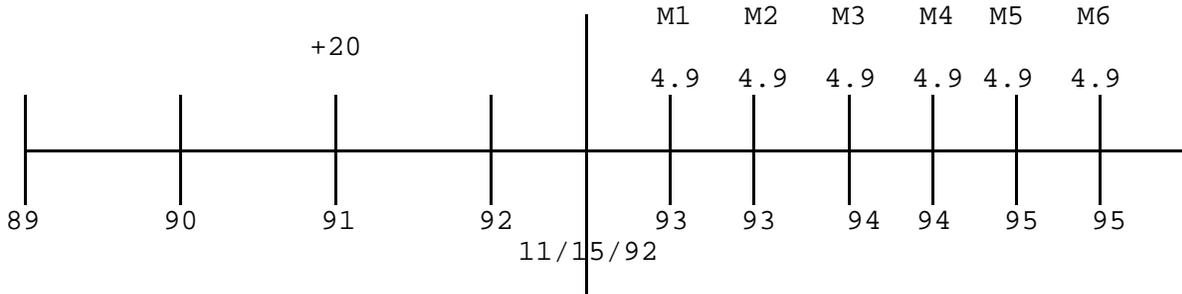
MODIFICATION 6:

Step 1: Project increase is +10 tpy > 5 tpy. Netting is required.

NEI = +10 + (+10) = +10 + (+10) - +20 tpy
NEI < 25 tpy. nonattainment review is not applicable.

²This method is consistent with the procedure described in item 6
of the letter.

EXAMPLE 2.



MODIFICATIONS M1 THROUGH M5:

Step 1: Project increase is 4.9 tpy < 5 tpy. 2: Net Changes after 11/15/92 < 25 tpy. Netting is not required.

MODIFICATION M6:

Step 1: Project increase is 4.9 tpy 5 tpy.

Step 2: Net Changes after 11/15/92=6 x 4.9=29.4 tpy>25 tpy.

NEI = 29.4 + 20 - 49.4 tpy.

NEI > 25 tpy. Nonattainment review is required.

Total Emissions to be offset = 29.4 tpy.

The required offset ratio in a severe O₃ nonattainment area is 1.3:1 or 1.3 x 29.4 = 38.2 tpy.