UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

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OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Redesignation of Sulfur Dioxide Nonattainment Areas in the Absence of Monitored Data

FROM: John S. Seitz, Director
Office of Air Quality Planning and Standards (MD-10)

TO: Regional Office Air Division Directors

The purpose of this memorandum is to provide guidance on redesignating sulfur dioxide (SO2) nonattainment areas to attainment, in cases where the areas' historic violations were caused by major point sources of sulfur oxide (SOx) emissions that are no longer in operation. States in some cases have, with our approval, removed SO2 monitors from these areas immediately following the shutdown of the SOx emissions sources. In these cases, states face the prospect of continued nonattainment designations for areas where there is no reasonable basis for assuming that SO2 violations persist.

This guidance provides an approach for redesignating these areas to attainment in the absence of monitoring data and for exempting these areas from the maintenance plan requirements for continued monitoring within the areas. In addition, this policy describes how attainment and continued maintenance should be demonstrated and how sources currently shut down should be treated if they resume operations. Therefore, this policy amends portions of previous redesignation policies, including "Procedures for Processing Requests to Redesignate Areas to Attainment," memo from John Calcagni, AQMD Director, dated 9/4/92; "Section 107 Designation Policy Summary," memo from Sheldon Meyers, OAQPS Director, dated 4/21/83, pertaining to ambient air quality data showing attainment and maintenance of the SO2 National Ambient Air Quality Standards (NAAQS); and "Attainment Determination Policy for Sulfur Dioxide Nonattainment Areas," memo from Sally L. Shaver, AQSSD Director, dated 1/26/95. All other provisions of the previous redesignation policies still apply, including provisions relating to contingency measures.

The Environmental Protection Agency's (EPA) historic redisignation policy for SO2 has called for 8 quarters of clean ambient air quality data for redesignation to attainment. Although EPA has allowed as few as 4 quarters of ambient data if an acceptable modeling analysis has been performed.[1] Areas that lack SO2 monitors cannot meet even the requirement for 4 quarters of clean data. However, EPA believes that it is not a reasonable use of limited monitoring resources to reestablish monitors in order to collect at least 4 quarters of data in areas where violations of the SO2 NAAQS were caused by sources that no longer operate.

Despite the absence of clean air quality data, EPA believes that it may approve a State's request to redesignate such SO2 nonattainment areas to attainment provided that the State submits a maintenance plan that addresses certain criteria.

First, the plan should include 3 emissions inventories:

(a) An inventory representing actual emissions during the period when there were violations of the SO2 NAAQS;

(b) An inventory representing current actual and allowable emissions (or potential emissions, if there is no allowable emissions level); and

(c) An inventory projecting allowable emissions (or potential emissions, if there is no allowable emissions level) to the 10th year after redesignation.

The inventories should display emissions from each point source of SOx, with explanations of significant emissions changes, including source shutdowns.[2] The inventories should include SOx emissions from all SOx point sources in, and within a 50 kilometer range of, the nonattainment area boundary. Again, if there is no allowable emissions level, potential emissions should be used.

Second, the maintenance plan should include a dispersion modeling analysis of all SOx point sources in, and within 50 kilometers of, the nonattainment area boundaries using the emissions inventories described above and the techniques and data prescribed in 40 CFR 51 Appendix W. The modeling analysis should show that:

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[1]See the Meyers memo referenced above. Both the Meyers and Calcagni memos recognize that for SO2 nonattainment areas monitoring data alone may not be sufficient for redesignating areas to attainment; dispersion modeling may be needed.

[2]The inventories should include other sources if they were included in the attainment demonstration.

(a) No SO2 NAAQS violations presently occur or can be projected to occur during the next 10 years anywhere within the nonattainment area; and,

(b) Point sources, which have since shut down, were the dominant sources contributing to high SO2 concentrations in the airshed.

Third, the maintenance plan should include evidence that if the SOx point source that caused the SO2 NAAQS violations in the past resumes operation, it would be considered a "new" source. Thus the maintenance plan should show that if this "new" SOx source would be a major source, it should obtain a permit conforming to applicable requirements of the Prevention of Significant Deterioration program before resuming operations; or if it would not be a major source, it should obtain a minor source permit under the State's SIP-approved minor source permitting rules in effect at the time it obtains a permit, before it may resume operation. The maintenance plan should provide that before such a permit is issued, the dispersion model should be re-run, using the same meteorological data base, to determine whether re-starting the source would interfere with maintenance, and should provide that the permit will not be issued if the model indicates that re-starting the source would interfere with maintenance.

Fourth, the maintenance plan should include commitments to resume ambient monitoring before any major source of SOx emissions commences operation.

This policy applies only to SO2 nonattainment areas because violations in such areas are generally dominated by relatively few point sources (such as copper smelters or power plants) and have insignificant area and mobile source emission contributions. As a result, there is a direct association between the point sources' emissions and ambient SO2 concentrations. Dispersion modeling will assure that SO2 NAAQS violations are no longer occurring and would not be expected to recur in the future.

This guidance memorandum does not impose binding, enforceable requirements on any party, and may not apply to a particular situation based upon the circumstances. The EPA retains the discretion to adopt approaches to addressing maintenance plan provisions that differ from this guidance where appropriate. Any final decisions by EPA regarding a particular SO2 maintenance plan will only be made in the context of a rulemaking action regarding that maintenance plan based upon the applicable statutory and regulatory provisions, which do contain legally binding requirements. Therefore, interested parties, including States, are free to raise questions and objections about the appropriateness of this guidance or the application of this guidance to a particular situation; EPA will consider whether or not the recommendations in the guidance are appropriate in that situation. The EPA welcomes public comments on this document at any time and will consider those comments in any future revision of this guidance document, which may occur without public notice.

I urge Regions to coordinate closely with OAQPS' Air Quality Standards and Strategies Division in determining whether SO2 redesignation requests may be subject to this policy and to ensure that states' submissions adequately address this and the previous policies' criteria for redesignating SO2 nonattainment areas to attainment.

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SO2 Redesignation Policy Memo

Policy Purpose: To amend existing requirements for redesignating SO2 NAAs to attainment, in order to allow for redesignations where:

(1) past violations were due to emissions from a single source;
(2) the single source has shut down;
(3) all monitors have been removed.

Policy Approach: **Maintenance plan** must include:

(1) **emissions inventories** representing (a) actual emissions when violations occurred; (b) current emissions; and (c) emissions projected to the 10th year after redesignation.
(2) **dispersion modeling** showing (a) no NAAQS violations occur or can be projected for the next 10 years; and (b) the shutdown sources were the dominant cause of high concentrations in the past.
(3) evidence that if the shutdown sources resume operation they will be considered new sources and required to obtain a **PSD permit**
(4) **commitments to resume monitoring** before any major SOx source commences operation.

Policy Application: Restricted to SO2 NAAs because SO2 violations are frequently caused by a few point sources

Policy Benefits: Allows redesignation of several SO2 NAAs to attainment, without requiring collection of ambient data