

**To: All Electronic Bulletin Board Viewers**

Attached, you will find the first set of Q&A's for PM-10 nonattainment plans. The responses, which were developed with the PM-10 contacts, have been reviewed both in the Office of Air Quality Planning and Standards (OAQPS) and in the Office of General Counsel (OGC). We will be following this set with several additional sets of PM-10 Q&A's currently being reviewed at OAQPS.

These Q&A's serve as a supplement to the Staff Work Product for PM-10 which is being incorporated into the General Preamble for Title I of the 1990 Clean Air Act Amendments (CAAA). In any instance where there may appear to be a discrepancy between the Q&A's and the Staff Work Product, the Staff Work Product and Title I of the CAAA remain the authoritative policy and statutory guidance, and the Q&A's should be read in ways that support those documents.

For additional information, please contact Gwen Jacobs in the Sulfur Dioxide/Particulate Matter Programs Branch, OAQPS, (FTS) 629-5295 or (919) 541-5295.

# QUESTIONS AND ANSWERS

FOR

PM-10

EPA's responses to questions regarding implementation of the PM-10 national ambient air quality standards (NAAQS) under the Clean Air Act (Act) as amended November 15, 1990 are discussed in this document. The answers set forth here do not establish or affect legal rights or obligations. Furthermore, they do not establish a binding norm and are not finally determinative of the issues addressed. Agency decisions in any particular case will be made by applying the applicable law and regulations to the specific facts of that case. In any proceeding in which the policies described in this document may be applied (e.g., rulemaking actions on PM-10 SIP's) the Agency will thoroughly consider the policy's applicability to the facts, the underlying validity of the policy, and whether changes should be made in the policy based on submissions made by any person.

Developed by  
SO<sub>2</sub>/Particulate Matter Programs Branch  
Office of Air Quality Planning and Standards

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**Maintenance Requirements**

Q: 1. Must the Moderate area SIP's include a maintenance demonstration?

A: PM-10 Group I areas were required to demonstrate attainment and maintenance of the standards. EPA recommended that in developing SIP's for Group I areas States consider the effect future growth would have on PM-10 emissions for a 10 to 20-year time frame (Response to Questions Regarding PM-10 State Implementation Plan (SIP) Development, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina 27711, June 1988, p.31).

When the Clean Air Act (Act) was revised in November 1990, PM-10 Group I areas and other areas where violations of the PM-10 standards were monitored before January 1, 1989 were designated as nonattainment areas [section 107(d)(4)(B)] and classified as Moderate [section 188(a)] by operation of law. In light of the various SIP requirements that these Moderate PM-10 nonattainment areas must meet, EPA recommends that the plans show maintenance of the PM-10 standards for at least 3 years beyond the attainment date.

First, section 189(c) of the amended Act requires that SIP's include quantitative milestones which are to be achieved every 3 years until the area is redesignated attainment and which demonstrate reasonable further progress (RFP) toward attainment by the applicable date. Reasonable milestones to achieve after the attainment date could offset increases in PM-10 emissions due to growth in the area and maintain the emission levels achieved to attain the standards.

Second, section 179(c) requires EPA to determine within 6 months after the attainment date, whether an area has attained the standards [see also section 188(b)(2)]. However, 3 calendar years of air quality data are generally required to demonstrate that an area has attained the standards [40 CFR Part 50, Appendix K]. For most areas, States will not have sufficient PM-10 data to make this demonstration immediately after the attainment date. The area will be reclassified unless the State shows that all of the applicable SIP requirements have been met, that not more than one exceedance of the 24-hour standard has been

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measured during the preceding year, and that the annual mean concentration for the preceding year is less than or equal to 50 ug/m<sup>3</sup>. In such case the area may qualify for a 1-year extension of the attainment date [section 188(d)]. If a second extension is needed the following year, it will be nearly 3 years after the attainment date before EPA can determine that the area has attained the standards and redesignate it to attainment.

Finally, before an area can be redesignated to attainment EPA must have determined that the area, among other things, has attained the PM-10 NAAQS and must have approved a maintenance plan for the area meeting the requirements of section 175A. See section 107(d)(3)(E). (Guidelines for the section 175A maintenance plans will be issued at a later date.)

In summary, a SIP must include quantitative milestones which are achieved every 3 years until the area is redesignated attainment. Because of the length of time it may take to determine whether an area has attained the standards, EPA recommends that SIP's demonstrate maintenance of the PM-10 standards for at least 3 years beyond the applicable attainment date. If not, an area may slip out of attainment after the attainment date has passed and before qualifying for redesignation to attainment. An area which slips out of attainment, in turn, will be reclassified as Serious (see section 188(b)(2)) and subject to more stringent control requirements.

### RACT/RACM

- Q: 2. What is the status of EPA's presumptive reasonably available control technology (RACT) document for iron and steel?
- A: EPA believes the summary of "Steel Industry Particulate Emission Limitations Generally Achievable on a Retrofit Basis" issued in 1980 by the Division of Stationary Source Enforcement (now the Stationary Source Compliance Division) is still technically valid. Therefore, EPA recommends that it be given presumptive weight for the sources listed. Essentially, EPA recommends that a State follow this document in determining RACT for applicable sources unless the State shows some reasonable justification for an

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alternative RACT. For example, a State may show that the emission limits specified in the document are outdated for a particular source and instead provide an alternative, more current control technology that achieves lower emissions. On the other hand, a State may show that the emission limits specified are not feasible for a particular source and therefore, would not constitute RACT for that source.

Q: 3a. What size source is required to have RACT and can States require RACT for smaller sources?

A: There is no statutory "size threshold" for PM-10 RACT. While EPA recommends that major stationary sources [i.e., sources with the potential to emit 100 tons per year (tpy) or more of any air pollutant] be the minimum starting point for RACT analysis in a Moderate nonattainment area, EPA generally construes RACT to apply to all existing sources in the area that are reasonable to control in light of the attainment needs of the area and the feasibility of such controls. Thus, EPA believes that in light of the area's attainment needs, a State's RACT analyses should go beyond major stationary sources and include other sources in the area that are reasonable to control under the circumstances. See "PM-10 Moderate Area SIP Guidance: Final Staff Work Product," April 2, 1991, pps. 8-9.

Q: 3b. What is the definition of "potential to emit" for major sources?

A: In determining the "potential to emit" for major sources of PM-10, EPA will rely on the definition in 40 CFR 51.165, (a)(1)(iii): "The maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design only if the limitation or the effect it would have on emissions is federally enforceable."

In other words, "potential to emit" is the maximum emissions that could occur under permitted operating conditions. A source's potential to emit is determined by measuring or

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calculating the worst case emission rate based on the dirtiest fuels and/or highest emitting materials and maximum operating conditions that the source is permitted to use. As noted, operational limitations that can be considered in the calculations include permit restrictions on hours of operation, rate or capacity of operation, the type, quality or amount of material burned, stored or processed. Additional emission limits achieved through enforceable air pollution control requirements can also be considered.

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Part 51.165 also states that "Secondary emissions do not count in determining the potential to emit of a stationary source." Secondary emissions, in this case, are defined at 51.165(a)(1)(iii) as emissions from activities related to the major source but not emitted from the major stationary source itself.

Q: 3c. Does potential to emit include precursors to secondarily formed particles and, if so, how are they calculated?

A: Section 189(e) states that control requirements applicable to major stationary sources of PM-10 shall also apply to major stationary sources of PM-10 precursors, "...except where the Administrator determines that such sources do not contribute significantly to PM-10 levels which exceed the standard in the area." Major sources of PM-10 precursors will be considered to be those with the potential to emit 100 tpy of sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), or VOC. The provisions of 40 CFR 51.165(a)(1)(iii) and (iv) should be used in determining the source's potential to emit. For example, a source with the potential to emit 100 tpy or more of either SO<sub>2</sub> or NO<sub>x</sub> would be a major source of PM-10 precursors in a Moderate area (70 tpy or more is major in Serious areas). States may, but are not required to, aggregate precursor emissions to determine whether a source is major.

EPA's policy on requiring RACT for sources of PM-10 precursors in SIP's for Moderate areas is discussed on pages 9-12 of PM-10 Moderate Area SIP Guidance (April 2, 1991). The guidance states that generally EPA believes that local sources of secondary particles are not significant contributors to the PM-10 nonattainment problem other than in a few major metropolitan areas in western States. Therefore, RACT for major sources of precursors is expected to be required only in those few major metropolitan areas. EPA recommends that, where a State believes secondary particles may be present in an area, the secondary fraction of PM-10 and the components of that secondary fraction be determined through appropriate chemical analysis of the filters used to determine the PM-10 concentrations. In those areas where this or other analyses indicate that secondary particles significantly contribute to PM-10 levels which exceed the standards, RACT is required for major sources of precursors.

**Other SIP-Required Measures**

Q: 4. What is required to demonstrate reasonable further progress (RFP) in Moderate areas?

A: PM-10 nonattainment area SIP's must include quantitative emission reduction milestones to be achieved every 3 years which demonstrate RFP until the area is redesignated attainment [section 189(c)]. The States must demonstrate to EPA that the SIP measures are being implemented and the milestones have been met, within 90 days after the milestone due date. The EPA must then determine whether or not the State's demonstration is adequate within 90 days of receiving the demonstration.

Under section 189(c) the State is required to submit a SIP revision if it fails to report on RFP, or EPA determines that a milestone was not met. The SIP revision is due within 9 months of the missed reporting date or EPA's determination that a milestone was missed. The SIP revision must assure that the State will achieve the next milestone by the applicable date and/or meet the PM-10 attainment date if there is no next milestone.

There is a gap in the law in that the text of section 189(c) does not articulate the starting point for counting the 3-year period. EPA believes it is reasonable to begin counting the 3-year milestone deadline from the due date for applicable implementation plan revisions containing the control measures for the area. EPA believes it is reasonable to key the milestone clock to the SIP revision containing control measures because as a practical matter it is the control measures which will give rise to emission reductions. Further, control measures must be implemented in less than 3 years after the SIP revision containing them is required to be submitted. Therefore, it is reasonable to expect that some reduction in emissions will have occurred three years after the SIP revision due date. EPA believes that measuring the 3-year period from the SIP revision due date is also reasonable. Essentially, EPA believes it would be unreasonable to begin counting the 3-year period whenever the SIP revision is submitted, in disregard of its due date. The statute contains specific SIP submittal and attainment deadlines. These deadlines and the framework they set up inform of EPA's interpretation of this requirement. Here EPA believes that the law contemplates that some improvement

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in air quality be made between the SIP submittal due date and ensuing 3-year increments. Further, to begin counting from the date of actual SIP submittal and not its due date would allow those States that submit SIPs late to defer meeting their quantitative milestones and, consequently, to defer making RFP toward attainment of the PM-10 standard. Thus, the first quantitative milestone deadline for the initial PM-10 Moderate nonattainment areas is November 15, 1994, 3 years after November 15, 1991 when SIP revisions containing reasonably available control measures (RACM) (including RACT) are due for these areas.

For the initial PM-10 Moderate nonattainment areas (due November 15, 1991) the emission reduction progress made between SIP submittal and the attainment date of December 31, 1994 (only 46 days beyond the November 15, 1994 milestone date) will satisfy the first quantitative milestone. However, the Administrator is required to determine within 6 months after the applicable attainment date whether a nonattainment area has attained the standards [sections 179(c) and 188(b)(2)]. Therefore, consistent with the milestone requirement, within 90 days after the attainment date States must demonstrate that the SIP has been implemented and the area has attained the standards or, alternatively, qualifies for a 1-year extension of the attainment date [section 188(d)]. Additional guidance for the RFP demonstration for both Moderate areas and Serious areas will be provided later.

Q: 5. What are the requirements for contingency measures and how do they relate to reclassification and maintenance plans?

A: a. Contingency measure requirements - All Moderate area SIP's, due November 15, 1991, must contain contingency measures that are to be implemented if the area fails to make RFP or to attain the primary standards by the applicable date [section 172(c)(9)]. Section 172(c) does not specify the number of contingency measures to be adopted or the magnitude of emission reductions to be achieved.

One basis EPA recommends for determining the magnitude of contingency measures is the amount of actual PM-10 emission reductions required by the SIP control strategy to attain the standards. When developing a

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control strategy and demonstrating attainment with dispersion modeling, the State may determine that some actual emissions must be reduced and also some allowable emission limits must be reduced to the levels that the sources are actually emitting. The contingency measures to be implemented if an area does not attain the standards on schedule should be a portion of the actual emission reductions required by the SIP control strategy to bring about attainment. Therefore, the contingency emission reductions should be approximately equal to the emission reductions necessary to demonstrate RFP for one year. For instance, reductions equal to 25 percent of the total reduction in actual emissions in the SIP control strategy would be appropriate for a Moderate nonattainment area since the control strategy must generally be implemented within a 3- to 4-year period between SIP development and the attainment date.

The contingency measures should consist of other available control measures beyond those required to attain the standards and may go beyond RACM. It is important NOT to allow contingency measures to mitigate the need for an adequate and appropriate control strategy demonstration.

- b. Effective date of contingency measures - Contingency measures must be implemented immediately after EPA determines the area has failed to make RFP or to attain the standards. The purpose of the contingency measures provision is to ensure that corrective measures will automatically become effective at the time that EPA makes such a determination. EPA is required to determine within 90 days after receiving a milestone demonstration and within 6 months after the attainment date (or 1 or 2 years later if extensions of the attainment date are granted) whether the requirement has been met [sections 179(c), 188 (b)(2), and 189(c)(2)]. Contingency measures must be fully adopted and take effect without further legislative action once EPA makes such determinations.
- c. Relationship with requirements for reclassification to Serious and maintenance plans - Moderate areas that EPA finds have failed to attain the standards by the applicable date are reclassified as Serious areas by operation of law [section 188(b)(2)]. The contingency

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measures in the SIP must be implemented when EPA finds the area has not attained. The State also must revise its SIP to meet the requirements for Serious areas and submit those revisions within 18 months after reclassification to Serious [section 189(b)(2)]. Contingency measures will be due in 4 years as part of the attainment demonstration. A Serious area guidance document will be available in May 1992.

Maintenance plans are required before an area that has attained the standards can be redesignated to attainment [sections 107(d)(3)(E) and 175A]. Contingency measures must also be included in maintenance plans [section 175A(d)]. Therefore, if the contingency measures in a nonattainment SIP have not been implemented to attain the standards, and they include a requirement that the State will implement all of the PM-10 control measures which were contained in the SIP before redesignation to attainment, then they can be carried over into the area's maintenance plan.

Q: 6. When and how will attainment be determined?

A: EPA is required to determine whether or not an area has attained the standards within 6 months of the attainment date [sections 179(c) and 188(b)(2)]. The attainment date for initial Moderate nonattainment areas (those areas designated nonattainment upon enactment of the 1990 Amendments by operation of law [section 107(d)(4)(B)]) is December 31, 1994 [section 188(c)(1)].

The attainment status of an area is determined in accordance with Appendix K of 40 CFR Part 50. Attainment of the annual standard is based on ambient data averaging equal to or less than 50 ug/m<sup>3</sup> [section 2.2 of Part 50, Appendix K]. Attainment of the 24-hour standard is determined by calculating the expected number of exceedances of the 150 ug/m<sup>3</sup> limit per year. The 24-hour standard is attained when the expected number of exceedances is 1.0 or less [section 2.1 of Part 50, Appendix K]. Generally, three calendar years of ambient data are used for the annual and 24-hour calculations [section 2.3 of Part 50, Appendix K].

Since the attainment date for the initial Moderate nonattainment areas is December 31, 1994 and generally areas must have 3 years of clean data to demonstrate attainment,

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data collected in 1992, 1993 and 1994 will be the starting point for determining whether an initial Moderate nonattainment area demonstrates attainment in accordance with Part 50, Appendix K. However, some areas may not have clean data at such early dates (i.e., 1992 and 1993). Nevertheless, if RACM is implemented in an initial Moderate area by December 10, 1993, as called for under the statute [section 189(a)(1)(C)], then the area should have clean data as of January 1, 1994. Such an area would have one year of clean data before the December 31, 1994 attainment date. Accordingly, using the ambient date for calendar year 1994, the area may qualify for an attainment date extension under section 188(d). Specifically, EPA may extend an area's attainment date if a State requests an extension and meets the following conditions set forth in section 188(d):

- (1) For the area in question, the State has complied with all requirements and commitments in the applicable SIP, and
- (2) No more than one exceedance of the 24-hour standard occurred during the year preceding the extension year, and the annual standard was not exceeded during such year.

In addition to these criteria, an area should be conducting, as applicable, every other day or everyday sampling at the site of expected maximum concentration in the area, in accordance with 40 CFR Part 58.13(c). The attainment status of an area receiving an extension then would be evaluated again at the end of the first extension year using the data for 1994 and the 1995 extension year. If the area still has clean data, a second 1-year extension of the attainment date can be granted under section 188(d). In this way, by the end of 1996 an initial Moderate area implementing RACM by December 10, 1993 and having clean data as of January 1, 1994 would be able to demonstrate attainment of the PM-10 standards based on 3 years of ambient data. However, an area not qualifying for an extension would be reclassified as a Serious PM-10 nonattainment area and subject to additional control measures.

### **SIP Processing and Sanctions**

Q: 7. What is required of an area that was designated nonattainment but has not measured PM-10 violations for

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several years?

A: A complete SIP meeting the applicable requirements for nonattainment areas specified in "Subpart 1 - Nonattainment Areas in General" and "Subpart 4 - Additional Provisions for Particulate Matter Nonattainment Areas" must be submitted for all of the initial PM-10 Moderate nonattainment areas [see Title I of the amended Clean Air Act]. For example, by November 15, 1991 the State must submit the following:

- (1) a demonstration (including air quality modeling) that the plan will provide for attainment by December 31, 1994, and
- (2) provisions to assure that RACM (including RACT) are implemented no later than December 10, 1993.

A Part D new source review program (NSR) meeting the requirements of section 173 of the Act must be submitted by June 30, 1992 [see generally, section 189(a)].

If an area has not measured violations for several years, in its attainment demonstration for the area, the State may show that the current allowable emission limits for the sources in the area assure attainment and, accordingly, additional control measures would be unreasonable and would not constitute RACM for the area. Generally, all the emission regulations must be enforceable and submitted for approval with the SIP.

A State having a nonattainment area where there have not been violations of the PM-10 standards for several years may also request that the area be redesignated to attainment. Section 107(d)(3)(E) of the Act sets out the following requirements for redesignation from nonattainment to attainment:

- (1) EPA must determine that the area has attained the PM-10 NAAQS,
- (2) EPA must have fully approved the applicable implementation plan for the area,
- (3) EPA must determine that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from

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implementation of the applicable implementation plan, applicable Federal regulations and other permanent and enforceable reductions,

- (4) EPA must have fully approved a maintenance plan for the area meeting the requirements of section 175A, and
- (5) the State containing the area must have met all requirements applicable to the area under section 110 and Part D.

A State requesting that a nonattainment area with several years of clean data be redesignated attainment may meet, in part, the initial requirement for a maintenance plan under section 175A by demonstrating that the allowable emission limits in the SIP will maintain the standards for at least 10 years after redesignation. (In order to meet section 175A in full the State's plan would have to contain contingency provisions in accordance with section 175A(d).) In addition, a State containing an area which is seeking redesignation to attainment should ensure that its PSD rules are revised and updated to meet the minimum requirements of the Act [see, e.g., section 110(a)(2)(J)].

Q: 8. How will EPA deal with failure to submit PM-10 SIP's by November 15, 1991?

A: Section 189(a)(2)(A) of the Act as amended in 1990 requires that the States submit PM-10 SIP's to EPA within one year of enactment (November 15, 1991) for the areas designated nonattainment by operation of law at enactment and classified as Moderate. In the November 1991 PM-10 SIP's, the amended Act requires the States to demonstrate that the plan will provide for attainment by the statutory deadline of December 31, 1994 or that such attainment is impracticable. In other words, States cannot continue to defer submitting a SIP by the due date because it will not or cannot address its PM-10 problem. It is important that the States understand as early as possible that EPA regards the PM-10 statutory deadlines as Serious and that it intends to use its sanctioning authority under the amended Act to encourage State compliance.

The amended Act (in two separate provisions) requires or grants EPA the authority to impose sanctions based on four

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types of findings set forth under section 179(a)(1)-(4): (1) that a State has failed to submit a SIP, a SIP element, or has failed to make a submission that satisfies the minimum criteria established for any such element under section 110(k); (2) that the EPA disapproves a SIP submission for a nonattainment area based on its failure to meet one or more elements required by the amended Act; (3) that the State has not made any other submission, or has made an inadequate submission, as required by the amended Act, or that EPA disapproves such a submission; and (4) that a requirement of an approved plan is not being implemented. The procedure covered in this Q&A addresses the deficiency described in (1) above.

Under section 110(m), EPA has the discretion to apply sanctions on a Statewide or political subdivision level in the event it makes a finding, determination, or disapproval pursuant to section 179(a). Under section 179, after 18 months EPA must apply one of the available sanctions under section 179(b) to nonattainment areas for which EPA has made a finding, determination, or disapproval unless the deficiency is corrected in the interim. Section 179(b) identifies two available sanctions: highway funding and emission offset sanctions. Section 179(a) identifies one available sanction--withholding of air pollution grants issued under section 105 of the Act--that EPA may impose under section 179(a) but is not required to impose under that section. The air pollution grant sanction may not be imposed pursuant to section 110(m).

A general procedure has been developed to address State failures to submit PM-10 SIP's by the Act's deadlines. It is similar to the one being used to correct the deficiencies for the RACT rules in ozone SIP's. The procedure is as follows:

1. By mid-September 1991, the Regional Offices should send a letter to each State explaining the procedure EPA intends to undertake in the event a State fails to submit a PM-10 SIP by November 15, 1991.
2. By December 1, 1991, the Regional Administrators should send letters to the Governors of States that have failed to submit SIP's by the deadline, notifying them that, for the purpose of starting the 18-month time clock for the mandatory application of sanctions under section 179(a), the letter constitutes an official EPA

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finding.

3. As soon as practical after the letters which make the finding, EPA should publish a Federal Register notice that (1) lists the PM-10 nonattainment areas for States that have not submitted SIP's; and (2) identifies the sanctions that will be imposed if the SIP's are not submitted.