UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

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OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Guidance on SIP Elements Required Under Sections 110(a)(1) and (2) for the 1997 8-hour Ozone and $PM_{2.5}$ National Ambient Air Quality Standards

FROM: for William T. Harnett, Director
Air Quality Policy Division (C539-01)

TO: Air Division Directors, Regions I-X

The purpose of this memorandum is to provide guidance on the "infrastructure" elements for State Implementation Plans (SIPs) required under section 110(a)(1) and (2) of the Clean Air Act (CAA) for the 1997 8-hour ozone and fine particulate matter ($PM_{2.5}$) national ambient air quality standards (NAAQS). Attachment A to this memo provides a list of the basic elements that States must include in their SIPs. To the extent that existing SIPs for ozone and particulate matter already meet these requirements, States need only certify that fact to the Environmental Protection Agency (EPA). To the extent that existing SIPs for ozone and particulate matter fail to address any of these requirements for purposes of the 1997 8-hour ozone or $PM_{2.5}$ NAAQS, States need to make timely SIP submissions to EPA to address these requirements. We anticipate that States will already have approved SIPs in place for ozone that meet the basic requirements of sections 110(a)(1) and (2). For $PM_{2.5}$, however, we anticipate that many States may need to make SIP revisions to ensure that their existing SIPs for prior particulate matter NAAQS are revised to include the new particle size indicator.

Background

On July 18, 1997, the EPA promulgated new and revised NAAQS for ozone and particulate matter. For ozone, EPA revised the NAAQS to provide an 8-hour averaging period (versus a 1-hour averaging period for the pre-existing NAAQS), and set the level of the standard at 0.08 ppm (versus 0.12 ppm for the pre-existing NAAQS). For PM, EPA promulgated a new 24-hour and a new

annual NAAQS for $PM_{2.5}$ (particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers).[1]

Under sections 110(a)(1) and (2) of the CAA, all States are required to submit plans to provide for the implementation, maintenance, and enforcement of the 8-hour ozone and $PM_{2.5}$ standards. Sections 110(a)(1) and (2) require States to address basic SIP requirements, including emissions inventories, monitoring, and modeling to assure attainment and maintenance of the standards. By statute, SIPs meeting the requirements of sections 110(a)(1) and (2) are to be submitted by States within 3 years after promulgation of a new or revised standard. This being the case, States were required to submit such SIPs for the 1997 standards to EPA no later than July 2000. However, intervening litigation over the 1997 8-hour ozone and $PM_{2.5}$ NAAQS, created uncertainty about how to proceed and, to date, States have not submitted SIPs to meet the basic or infrastructure requirements enumerated in sections 110(a)(1) and (2).

In March of 2004, Earth Justice initiated a lawsuit against EPA for failure to take action against States that had not made SIP submissions to meet the requirements of sections 110(a)(1) and (2), i.e., failure to make a "finding of failure to submit." On March 10, 2005, EPA entered into a Consent Decree with Earth Justice that obligates EPA to make official findings whether States have made required SIP submissions by dates certain. The Consent Decree obligates EPA to determine whether States have made SIP submissions required to meet CAA section 110(a)(2)(D)(i) relating to interstate transport by no later than March 15, 2005. The Consent Decree also obligates EPA to make a determination whether States have made submissions necessary to meet the remaining 110(a)(1) and (2) requirements by December 15, 2007, for the 8-hour ozone NAAQS, and by October 5, 2008, for the $PM_{2.5}$ NAAQS.[2] It should be noted that the latter determinations pertain only to whether the submissions are complete, pursuant to section 110(k)(1)(A), and do not constitute EPA approval or disapproval of such submissions. In addition, the determinations required by the Consent Decree explicitly exclude any determinations regarding: (i)

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[1] More recently, on December 18, 2006, EPA again revised the standards for particulate matter, tightening the 24-hour $PM_{2.5}$ standard from 65 micrograms per cubic meter ($\mu g/m^3$) to 35 $\mu g/m,^3$ and retaining the current annual fine particle standard at 15 $\mu g/m^3$. EPA also decided to retain the existing 24-hour PM_{10} standard of 150 $\mu g/m^3$ and to revoke the annual PM_{10}. This guidance document applies only to the SIP submission requirements for the 1997 8-hour Ozone and $PM_{2.5}$ NAAQS. EPA will address SIP requirements for the 2006 NAAQS separately, although the Agency notes that the statutory requirements for SIPs for new or revised NAAQS are comparable.

[2] The dates specified in the Consent Decree reflect the anticipated dates for submission of nonattainment area SIPs for each NAAQS, plus six months for EPA evaluation. EPA presumed that States would make SIP submissions meeting the basic requirements of sections 110(a)(1) and (2) for each NAAQS contemporaneously with, or not later than, SIPs meeting the nonattainment area plan requirements. EPA notes that recent decisions by the U.S. Court of Appeals for the District of Columbia concerning the implementation rule for the 8-hour Ozone NAAQS have affected certain nonattainment area SIP requirements. These judicial decisions do not, however, affect States' obligations under the CAA or EPA's obligations under the Consent Decree concerning the infrastructure SIP requirements of sections 110(a)(1) and (2).

submissions required by section 110(a)(2)(C) to the extent that subsection pertains to a nonattainment area new source permit program in part D Title I of the CAA; and (ii) submissions required by section 110(a)(2)(I) for Part D Title I nonattainment area plans.

In accordance with the Consent Decree, EPA has already published a finding that all States had failed to submit new SIPs addressing interstate transport for the 8-hour ozone and $PM_{2.5}$ NAAQS, as required by section 110(a)(2)(D)(i) of the CAA (70 FR 21147, April 25, 2005). That finding initiated a 2-year deadline for the promulgation of a Federal Implementation Plan (FIP) by EPA for each such State unless, prior to that time, each State makes a submission to meet the requirements of Section 110(a)(2)(D)(i) and EPA approves such submission. On May 12, 2005, EPA published the Clean Air Interstate Rule (CAIR) which identifies the degree to which emissions of SO_2 and NO_x in certain States significantly contribute to nonattainment of, or interfere with maintenance of, the 1997 8-hour ozone and $PM_{2.5}$ NAAQS in downwind States, and the reductions that must be achieved in those States to eliminate such contributions.

On August 15, 2006, EPA issued guidance entitled "Guidance for State Implementation Plan (SIP) Submissions to Meet Current Outstanding Obligations Under Section 110(a)(2)(D)(i) for the 8-hour Ozone and $PM_{2.5}$ National Ambient Air Quality Standards." The section 110(a)(2)(D)(i) guidance indicates that States within the CAIR region can satisfy 110(a)(2)(D) by satisfying the requirements of the CAIR, and addresses what other States that are outside of the CAIR region should consider doing to meet the "significant contribution" and "interfere with maintenance" requirements of section 110(a)(2)(D)(i) for the 1997 standards. The section 110(a)(2)(D)(i) guidance also addresses what all States (whether inside or outside of the CAIR region) should consider in making SIP submissions to meet the "prevention of significant deterioration" and "protect visibility" requirements of section 110(a)(2)(D)(i). The SIP submissions addressed by the section 110(a)(2)(D)(i) guidance are those that are necessary to rectify the finding of failure to submit that EPA has already issued for all States for section 110(a)(2)(D)(i).

The guidance contained in this memorandum is intended as a reminder that States must have SIPs for the 1997 8-hour ozone and $PM_{2.5}$ NAAQS that meet all of the requirements of sections 110(a)(1) and (2). Pursuant to the Consent Decree, EPA has an obligation to take action to determine whether States have made such submissions by the dates noted above. Because States should currently be in the process of submitting nonattainment SIPs for the 8-hour ozone standard and working on nonattainment area SIPs for the $PM_{2.5}$ standard, we want to alert them to be sure that their SIPs also meet the basic requirements of sections 110(a)(1) and (2).

Guidance

The EPA believes that the currently-approved section 110 SIPs for ozone may already be adequate in most cases to implement the 8-hour ozone NAAQS. Many of the required section 110(a)(1) and (2) SIP elements relate to the general information and authorities that constitute the "infrastructure" of the ozone air quality management program, and these have been in place since the initial SIPs were submitted in response to the 1970 Clean Air Act. For particulate matter, however, EPA believes that some States may need to adopt language specific to the $PM_{2.5}$ NAAQS to ensure that they have adequate SIP provisions to implement the $PM_{2.5}$ NAAQS, e.g., existing State laws may refer to PM_{10} specifically or to particulate matter more generally, rather than to $PM_{2.5}$. We believe that with one exception, the infrastructure requirements of sections 110(a)(1) and (2) are relatively self explanatory, and past experience with SIPs for other NAAQS should enable States to meet these requirements with assistance from EPA Regions. The one exception is section 110(a)(2)(G) relating to emergency episodes, for which EPA intends to take additional regulatory action to provide necessary numerical limits and concentration levels for emergency episode action plans for $PM_{2.5}$.

States should review and revise, as appropriate, their existing ozone and particulate matter SIPs to ensure that they are adequate to address the 8-hour ozone and $PM_{2.5}$ NAAQS. If a State determines that its existing SIP is adequate, then the State needs to certify, via a letter to the Agency from the Governor or his/her designee, that the existing SIPs contain provisions that address the requirements for the 8-hour ozone and $PM_{2.5}$ NAAQS. If a State determines that its existing ozone or particulate matter SIPs are inadequate, however, then the State needs to submit a SIP revision to make the appropriate changes.

With respect to $PM_{2.5}$, States may find it more advantageous to revise the language in their SIPs to identify "particulate matter" as the pollutant being implemented and define the size fractions as "those that EPA has currently set for the NAAQS" to the extent such an approach would be authorized by State law. This will ensure that the provisions remain adequate in the event that future changes occur to the particulate matter standards. States could also specify both PM_{10} and $PM_{2.5}$ as the size fractions if a State prefers to be more specific.

As an aid to the States in addressing the $PM_{2.5}$ related requirements of Section 110(a)(2)(G) pertaining to emergency episode provisions, EPA intends to take action to revise 40 CFR, Part 51, subpart H (sections 51.150). The rule changes will establish the priority classifications which determine the emergency episode plan requirements for each area and establish a significant harm level (SHL) for $PM_{2.5}$. Until these changes are final, EPA recommends that States rely on relevant information contained in upcoming EPA rule proposals or other EPA-issued interim guidance to satisfy the section 110(a)(2)(G) requirements for $PM_{2.5}$. After EPA issues final rules, EPA will work with States to revise SIP

submissions that were based on interim information, as appropriate. States may wish to take advantage of the parallel processing mechanism for making their section 110(a)(2)(G) submittal in the interim while EPA completes rulemakings on the SHL and the emergency episode plan requirements under 40 CFR 51.150.

The SHL for the 8-hour ozone NAAQS will remain unchanged as 0.60 ppm ozone, 2-hr average, as indicated in 40 CFR Part 51.151. EPA believes that the existing ozone-related provisions of 40 CFR Subpart H remain appropriate. Therefore, EPA expects that for purposes of the 1997 8-hour ozone NAAQS, States need only to confirm that they have existing emergency episode plan provisions consistent with EPA's existing regulatory requirements.

By statute, States are required to make SIP submissions to meet the basic requirements of CAA sections 110(a)(1) and (2) within 3 years after promulgation of any new or revised standards. For the 1997 8-hour ozone and $PM_{2.5}$ standards, this deadline was July 2000. By Consent Decree, as noted above, EPA has agreed to make a determination whether or not States have submitted SIPs to meet these requirements by a date certain. In the case of 8-hour ozone SIPs, this date is December 15, 2007. For $PM_{2.5}$ SIPs, this date is October 15, 2008. In order for EPA to evaluate the submissions adequately, EPA requests that States make their certifications of SIP adequacy or SIP revisions as soon as possible and to the extent feasible sufficiently in advance of these dates to allow EPA time to determine whether complete submissions have been made.

If you have any questions concerning this guidance, please contact Mr. David Sanders at (919) 541-3356. Please ensure that the appropriate air agency officials for States in your Region are made aware of this guidance.

Attachments

cc: Margo Oge, OTAQ
Steve Page, OAQPS
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Attachment A: Required Section 110 SIP Elements

The SIP elements listed below are required under section 110(a)(1) and (2). Section 110(a)(1) provides the procedural and timing requirements for SIPs. Section 110(a)(2) lists the basic or "infrastructure" elements that all SIPs must contain. We note that this list is not intended to constitute an interpretation of these provisions, or a change of past practice with respect to these provisions, merely a brief description of the required SIP elements.

Emission limits and other control measures: Section 110(a)(2)(A) requires SIPs to include enforceable emission limits and other control measures, means or techniques, schedules for compliance and other related matters. EPA notes that the specific nonattainment area plan requirements of section 110(a)(2)(I) are subject to the timing requirement of section 172, not the timing requirement of section 110(a)(1), and also that SIPs to meet this section are not covered by the Consent Decree.

Ambient air quality monitoring/data system: Section 110(a)(2)(B) requires SIPs to include provisions to provide for establishment and operation of ambient air quality monitors, collecting and analyzing ambient air quality data, and making these data available to EPA upon request.

Program for enforcement of control measures: Section 110(a)(2)(C) requires States to include a program providing for enforcement of all SIP measures and the regulation of construction of new or modified stationary sources to meet prevention of significant deterioration (PSD) and nonattainment NSR requirements.

Interstate transport: Section 110(a)(2)(D) requires SIPs to include provisions prohibiting any source or other type of emissions activity in one State from contributing significantly to nonattainment, or interfering with maintenance, of the NAAQs in another State, or from interfering with measures required to prevent significant deterioration of air quality or to protect visibility in another State. EPA has already issued CAIR to assist States in developing SIPs to meet this requirement for purposes of the 8-hour Ozone and $PM_{2.5}$ NAAQS, and has issued separate guidance to all States on how to comply with each prong of this statutory provision.

Adequate resources: Section 110(a)(2)(E) requires States to provide for adequate personnel, funding, and legal authority under State law to carry out its SIP, and related issues.

Stationary source monitoring system: Section 110(a)(2)(F) requires States to establish a system to monitor emissions from stationary sources and to submit

periodic emissions reports.

Emergency power: Section 110(a)(2)(G) requires States to provide for authority to address activities causing imminent and substantial endangerment to public health, including contingency plans to implement the emergency episode provisions in their SIPs.

Future SIP revisions: Section 110(a)(2)(H) requires States to have the authority to revise their SIPs in response to changes in the NAAQS, availability of improved methods for attaining the NAAQS, or in response to an EPA finding that the SIP is substantially inadequate.

Consultation with government officials: Section 110(a)(2)(J) requires States to provide a process for consultation with local governments and Federal Land Managers carrying out NAAQS implementation requirements pursuant to section 121 relating to consultation.

Public notification: Section 110(a)(2)(J) further requires States to notify the public if NAAQS are exceeded in an area and to enhance public awareness of measures that can be taken to prevent exceedances.

PSD and visibility protection: Section 110(a)(2)(J) also requires States to meet applicable requirements of part C related to prevention of significant deterioration and visibility protection.

Air quality modeling/data: Section 110(a)(2)(K) requires that SIPs provide for performing air quality modeling for predicting effects on air quality of emissions from any NAAQS pollutant and submission of such data to EPA upon request.

Permitting fees: Section 110(a)(2)(L) requires SIPs to require each major stationary source to pay permitting fees to cover the cost of reviewing, approving, implementing and enforcing a permit.

Consultation/participation by affected local entities: Section 110(a)(2)(M) requires States to provide for consultation and participation in SIP development by local political subdivisions affected by the SIP.