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6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[FRL-XXXX-X]

**Findings of Significant Contribution and Rulemaking on
Section 126 Petitions for Purposes of Reducing Interstate
Ozone Transport**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Advance notice of proposed rulemaking.

SUMMARY: In accordance with sections 126 and 110(a)(2)(D) of the Clean Air Act (CAA), EPA plans to take rulemaking action on petitions filed by eight Northeastern States seeking to mitigate what they describe as significant transport of one of the main precursors of ozone smog, nitrogen oxides (NOx), across State boundaries. Each petition specifically requests that EPA make a finding that NOx emissions from certain major stationary sources significantly contribute to ozone nonattainment problems in the petitioning State. If EPA makes such a finding, EPA would be authorized to establish Federal emissions limits for the sources. The petitions recommend control levels for EPA to consider. The eight Northeastern States that filed petitions are Connecticut, Maine, Massachusetts, New Hampshire, New York, Pennsylvania, Rhode Island, and Vermont.

This notice announces the Agency's schedule for rulemaking on the section 126 petitions, provides EPA's preliminary identification of sources named in the petitions that significantly contribute to nonattainment problems in the petitioning States, provides EPA's preliminary assessment of the types of recommended emission limitations and compliance schedules set forth in the petitions, and discusses legal and policy issues raised under section 126.

The transport of ozone is important because ozone has long been recognized, in both clinical and epidemiological research, to affect public health. There is a wide range of ozone-induced health effects, including decreased lung function (primarily in children active outdoors), increased respiratory symptoms (particularly in highly sensitive individuals), increased hospital admissions and emergency room visits for respiratory causes (among children and adults with pre-existing respiratory disease such as asthma), increased inflammation of the lung, and possible long-term damage to the lungs.

DATES: The EPA is establishing an informal 30-day comment period for today's advance notice of proposed rulemaking (ANPR), ending on [insert 30 days from publication]. Please direct correspondence to the address specified below. See SUPPLEMENTARY INFORMATION for further information on the

ANPR comment period.

A public hearing for the future proposed rulemaking on the section 126 petitions will be held on October 28 and 29, 1998.

ADDRESSES: Documents relevant to this action are available for inspection at the Air and Radiation Docket and Information Center (6101), Attention: Docket A-97-43, U.S. Environmental Protection Agency, 401 M Street SW, room M-1500, Washington, DC 20460, telephone (202) 260-7548, between 8:00 a.m. and 4:00 p.m., Monday through Friday, excluding legal holidays. A reasonable copying fee may be charged for copying.

Written comments should be submitted to this address. Comments and data may also be submitted electronically by following the instructions under SUPPLEMENTARY INFORMATION of this document. No confidential business information should be submitted through e-mail.

The public hearing on the future proposed rulemaking on the section 126 petitions will be held on October 28 and 29, 1998 at the EPA Auditorium at 401 M Street SW, Washington, DC, 20460.

FOR FURTHER INFORMATION CONTACT: Carla Oldham, Office of Air Quality Planning and Standards, Air Quality Strategies and Standards Division, MD-15, Research Triangle Park, NC,

27711, telephone (919) 541-3347.

SUPPLEMENTARY INFORMATION:

Comment Period

This ANPR gives EPA's preliminary assessment of the petitions and raises a number of legal and policy issues related to the section 126 provisions. If comments are submitted within 30 days of publication of this notice, EPA will have adequate time to take the comments into account in the deliberative process for the rulemaking proposal. As discussed in Section V of this notice, under a proposed consent decree, EPA must publish the section 126 rulemaking proposal in the Federal Register by September 30 of this year. A formal comment period and public hearing will be provided for the proposal. The EPA will respond to comments on this ANPR, if any comment is appropriate, when it responds to comments on the proposal.

Availability of Related Information

The official record for this rulemaking, as well as the public version, has been established under docket number A-97-43 (including comments and data submitted electronically as described below). The eight petitions are contained in this docket. A public version of this record, including printed, paper versions of electronic comments, which does not include any information claimed as confidential business

information, is available for inspection from 8 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The official rulemaking record is located at the address in ADDRESSES at the beginning of this document. Electronic comments can be sent directly to EPA at: A-and-R-Docket@epamail.epa.gov. Electronic comments must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. Comments and data will also be accepted on disks in WordPerfect in 5.1 file format or ASCII file format. All comments and data in electronic form must be identified by the docket number A-97-43. Electronic comments on this ANPR rule may be filed online at many Federal Depository Libraries.

The EPA is conducting a separate rulemaking action that contain actions and information related to this ANPR, "Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone," (see 62 FR 60318; November 7, 1997 and a supplemental proposal being published in late April or early May 1998.) Documents related to these proposals are available for inspection in Docket No. A-96-56 at the address and times given above. This rulemaking action is hereafter referred to as the proposed NOx State

implementation plan (SIP) call (proposed NOx SIP call). The proposed NOx SIP call and associated documents are located at <http://www.epa.gov/ttn/oarpg.otagsip.html>.

Additional information relevant to this ANPR concerning the Ozone Transport Assessment Group (OTAG) is available on the Agency's Office of Air Quality Planning and Standards' (OAQPS) Technology Transfer Network (TTN) via the web at <http://www.epa.gov/ttn/>. If assistance is needed in accessing the system, call the help desk at (919) 541-5384 in Research Triangle Park, NC. Documents related to OTAG can be downloaded directly from OTAG's webpage at <http://www.epa.gov/ttn/otag>. The OTAG's technical data are located at <http://www.iceis.mcnc.org/OTAGDC>.

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**Proposed NOx SIP Call, and the Revised Ozone National
Ambient Air Quality Standard (NAAQS)**

Today's action occurs against a background of a major national effort, spanning at least the last 10 years, to analyze and take steps to mitigate the problem of the transport of ozone and its precursors across State boundaries. This effort has grown more intensive in the past several years with the approval of the OTC NOx MOU by 11 of the Northeastern States and the District of Columbia included in the OTC, the completion of the OTAG process, and the publication of EPA's proposed NOx SIP call. In addition, in July 1997, EPA issued a revised NAAQS for ozone, which is determined over an 8-hour period (the 8-hr standard). This new 8-hr standard must now be taken into account, along with the pre-existing 1-hr standard, in resolving transport issues. These issues and events are detailed in the proposed NOx SIP call (62 FR 60318) and familiarity with that notice is assumed for purposes of today's notice.

B. Section 126

Today's action focuses on section 126 of the CAA. Subsection (a) of section 126 requires, among other things, that SIPs require major proposed new (or modified) sources to notify nearby States for which the air pollution levels

may be affected by the fact that such sources have been permitted to commence construction. Subsection (b) provides:

Any State or political subdivision may petition the Administrator for a finding that any major source or group of stationary sources emits or would emit any air pollutant in violation of the prohibition of section 110(a)(2)(D)(ii) . . . or this section.

Subsection (c) of section 126 states that--

[I]t shall be a violation of this section and the applicable implementation plan in such State [in which the source is located or intends to locate]-

-

(1) for any major proposed new (or modified) source with respect to which a finding has been made under subsection (b) of this section to be constructed or to operate in violation of the prohibition of section 110(a)(2)(D)(ii) . . . or this section, or

(2) for any major existing source to operate more than three months after such finding has been made with respect to it.

However, subsection (c) further provides that EPA may permit the continued operation of such major existing sources beyond the 3-month period, if such sources comply with EPA-promulgated emissions limits within 3 years of the date of the finding.

Section 110(a)(2)(D) provides the requirement that a SIP contain adequate provisions --

(i) prohibiting, consistent with the provisions of this title, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will--

(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to [any] national . . . ambient air quality standard, or

(II) interfere with measures required to be included in the applicable implementation plan for any other State under part C to prevent significant deterioration of air quality or to protect visibility.

(ii) insuring compliance with the applicable requirements of sections 126 and 115 (relating to interstate and international pollution abatement)
. . . .

For purposes of today's ANPR, it is EPA's preliminary view that, with respect to existing stationary sources, sections 126(b)-(c) and 110(a)(2)(D), read together, authorize a downwind State to petition EPA for a finding that emissions from major stationary sources upwind of the State contribute significantly to nonattainment, or interfere with maintenance, of a NAAQS in the State. If EPA grants the requested finding, EPA must directly regulate the sources. Sources would have to comply with the emissions limits within 3 years from the finding. The EPA acknowledges that others have urged different readings of sections 126(b)-(c) and 110(a)(2)(D), and EPA solicits comments thereon, as described in Section IV below.

In a letter dated August 8, 1997, to Michael J. Walls, Chief, Environmental Protection Bureau, Office of Attorney General, State of New Hampshire, from Mary D. Nichols,

Assistant Administrator for Air and Radiation, EPA provided preliminary and general guidance concerning section 126 and the process of submitting petitions (Nichols letter). This letter has been placed in the docket for today's action.

In Section IV of this notice, below, EPA discusses legal and policy issues raised under section 126 and requests comments on the various issues.

C. Summary of Section 126 Petitions

On August 14-15, 1997, EPA received eight section 126 petitions submitted individually by eight Northeastern States. The petitioning States are Connecticut, Maine, Massachusetts, New Hampshire, New York, Pennsylvania, Rhode Island, and Vermont. Each petition requests EPA to make a finding that certain major stationary sources in upwind States contribute significantly to nonattainment, or interfere with maintenance, in the petitioning State. All of the petitions seek a finding and relief under the 1-hr standard; Massachusetts, Pennsylvania, and Vermont also seek a finding and relief with respect to the 8-hr standard.

The petitions vary as to the type and geographic location of the sources identified as significant contributors. Some petitions identify specific sources, others list source categories. The sources and source categories include electric generating plants, fossil fuel-

fired boilers and other indirect heat exchangers, and certain other related stationary sources that emit NO_x. All the petitions target sources in the Midwest; some also target sources in the South and Northeast.

The petitions also vary as to the level of controls they recommend be applied to the sources to mitigate the transport problem. Several recommend EPA establish a 0.15 lb/mmBtu NO_x emission limitation implemented through a cap-and-trade program. The petitions are described in greater detail in Sections II and III of this notice.

All of the petitions rely, in part, on OTAG analyses for technical support. In addition, the States submitted a variety of other technical analyses which include computerized urban airshed modeling, wind trajectory analyses, results of a transport study by the Northeast States for Coordinated Air Use Management, and culpability analyses.

D. Relationship to NO_x SIP Call

The sources, or groups of sources, identified in the petitions may also be subject to State-adopted emission limitations and control schedules in response to a separate rulemaking action on regional ozone transport--the NO_x SIP call.

In the proposed NO_x SIP call, EPA made a proposed

determination that NOx emissions from 22 eastern States and the District of Columbia significantly contribute to nonattainment problems in downwind States with respect to both the long-standing 1-hr NAAQS and the new 8-hr NAAQS. The EPA proposed that these jurisdictions be required to revise their SIPs to reduce Statewide NOx emissions to a specified level. The proposal is designed to assure that SIPs meet the requirements of section 110(a)(2)(D), which mandates that SIPs contain adequate provisions prohibiting emissions that significantly contribute to downwind nonattainment.

The proposed NOx SIP call is the result of technical analyses and recommendations by the OTAG, a group comprised of EPA and the 37 eastern-most States in the Nation, as well as industry and environmental groups. Because the NOx SIP call process overlaps considerably with the section 126 petition process, EPA believes it is important to coordinate the two actions as much as possible.

E. Proposed Rulemaking Schedule

Section 126(b) requires EPA to make the requested finding, or deny the petition, within 60 days of receipt. It also requires EPA to provide a public hearing for the petition. In addition, EPA's action under section 126 is subject to the procedural requirements of section 307(d) of

the Act. One of these requirements is notice-and-comment rulemaking. Section 307(d) provides for a time extension, under certain circumstances, for rulemakings subject to that provision. Specifically, it allows statutory deadlines that require promulgation in less than 6 months from proposal to be extended to not more than 6 months from proposal to afford the public and the Agency adequate opportunity to carry out the purposes of section 307(d). In three notices dated October 22, 1997 (62 FR 55769), November 20, 1997 (62 FR 6194), and January 2, 1998 (63 FR 26), EPA ultimately extended the deadline for action to December 18, 1997.

On February 25, 1998, the eight petitioning States filed a complaint in the U.S. District Court for the Southern District of New York to compel EPA to take action on the States' section 126 petitions. The EPA and the eight States filed a proposed consent decree that would establish a schedule for acting on the petitions. Pursuant to CAA section 113(g), the EPA has solicited comments on the proposed consent decree, by notice dated March 5, 1998 (63 FR 10874). The comment period closed April 6, 1998.

The schedule recommended in the proposed consent decree would require EPA to take final action on at least the technical merits of the petitions by April 30, 1999. The recommendation would further provide for an alternative schedule under which EPA could delay final action on the

petitions until May 1, 2000. The section 126 rulemaking schedule is described in more detail in Section V of this notice.

II. Preliminary Analysis of Significant Contribution

A. Background

This section describes EPA's preliminary analysis of whether the sources identified in the section 126 petitions significantly contribute to nonattainment problems in the eight petitioning States. The EPA is relying on information included in the proposed NOx SIP call on significant contribution for this analysis. The proposed NOx SIP call significance determination was based upon a "weight of evidence" approach in which a range of technical information was evaluated against a set of factors, as described below. This section presents (1) general information on the importance of transport to ozone formation, (2) the collective nature of the contribution of man-made emissions to ozone formation, (3) factors considered in the weight of evidence approach and findings of significant contribution in the proposed NOx SIP call, and (4) analysis of these findings relative to each of the petitions.

B. Regional Ozone and Interstate Transport

The importance of interstate transport to the regional ozone problem and contributions from upwind States to

downwind States is supported by numerous studies of air quality measurements and modeling analyses. In general, ozone episodes occur on many spatial and temporal scales ranging from localized subregional events lasting a day or two, up to regionwide episodes lasting as long as 10 - 14 days. The frequency of localized versus regional episodes depends on the characteristics of the large-scale meteorological patterns which control the weather in a particular summer season. In some cases, local controls alone are not sufficient to reduce ozone during regionwide episodes since a substantial amount of ozone may be transported into the area from upwind sources.

The National Research Council report, "Rethinking the Ozone Problem in Urban and Regional Air Pollution,"¹ cites numerous studies of widespread ozone episodes during summertime meteorological conditions in the East. These episodes typically occur when a large, slow-moving, high pressure system envelopes all, or a large portion of, the Eastern United States. The relatively clear skies normally associated with such weather systems favor high temperatures and strong sunlight, which enhances the formation of high ozone concentrations. In addition, the wind flow patterns

¹National Research Council, Committee on Tropospheric Ozone Formation and Measurement, "Rethinking the Ozone Problem in Urban and Regional Air Pollution," pp. 93-107, National Academy Press, Washington, DC, 1991.

can lead to a build up of ozone concentrations and the potential for long-range ozone transport. Specifically, winds are generally light in the center of high pressure systems so that areas under the center may have near-stagnation conditions resulting in the formation of high ozone levels. As the high pressure system moves eastward, winds become stronger on the "backside" which increases the potential for these high ozone levels to be transported to more distant downwind locations. Over several days, the emissions from numerous small, medium, and large cities, major stationary sources in rural areas, as well as natural sources, combine to form a "background" of moderate hourly ozone levels ranging from 80 to 100 ppb² of which only 30 to 40 ppb may be due to natural sources. Hourly ozone concentration levels in the range of 80 to 100 ppb and higher have also been measured by aircraft aloft, across portions of the Northeast³. Because this level of background ozone is so close to the ozone NAAQS, even a small amount of locally-generated ozone will result in an exceedance.

C. Collective Contribution to Nonattainment

²Northeast States for Coordinated Air Use Management, "The Long-Range Transport of Ozone and Its Precursors in the Eastern United States," March 1997, Boston, MA. (Document is available in Docket A-96-56 for the NOx SIP call.)

³Ibid.

Ozone is generally the result of cumulative emissions of NOx and volatile organic compounds (VOC) from hundreds of stationary sources and millions of vehicles, each of which is likely to be responsible for much less than 1 percent of the overall inventory of precursor emissions. A source (or group of sources) should not be exempted from treatment as a significant contributor merely because it may be a small part, in terms of total emissions, of the overall problem when all or most other contributors, individually, are also relatively small parts of the overall problem. This situation, in which a number of individual (and sometimes small) sources collectively cause a significant impact on air quality, is a major aspect of the contribution issue. As noted above, the moderate-to-high ozone levels which cover broad regions are the result of emissions from millions of individual sources interacting over multiple days. The contribution to downwind nonattainment results from the cumulative contribution from all sources involved in this process.

In light of these considerations, in the proposed NOx SIP call, EPA believed it not appropriate to define a bright line test for significant contribution. Instead, EPA relied on a weight of evidence approach, based on a range of information, for determining whether a State makes a significant contribution to downwind nonattainment.

D. Weight of Evidence Approach and Findings of Significant Contribution

The factors considered by the EPA in the proposed NOx SIP call for determining whether a contribution is significant include:

- the transport distance between the upwind source area and the downwind problem area;
- the amount of the contribution (ppb above the level of the ozone standard) made to the downwind nonattainment area;
- the geographic extent of the contribution downwind; and
- the level of emissions in the area upwind of a nonattainment area.

Details of the methodology and approaches followed by EPA in its analysis of these factors are documented in the proposed NOx SIP call⁴.

In brief, the results of the OTAG air quality, trajectory, and wind vector analyses indicate that the 1- to 2-day transport distance scale for the northern portion of the OTAG domain is generally in the range of 150 to 500 miles. This information was used to identify a set of States which could potentially contribute to downwind nonattainment. The amount of contribution and geographic

⁴For a technical description of this modeling, see proposed NOx SIP call, 62 FR 60,335-337.

extent of contribution from upwind areas to downwind nonattainment were quantified by EPA based on analysis of the OTAG subregional modeling. In these model runs, all manmade emissions were removed in each of 12 subregions (see Figure 1), individually. The resulting "ppb" contributions were tabulated by State for areas within the State which (a) currently violate the NAAQS, based on 1993-1995 ambient monitoring data and (b) which are also expected to continue to violate the NAAQS, based on future-year 2007 modeling of CAA controls⁵. Contributions to 1-hr and 8-hr nonattainment were considered separately. The modeling results indicate that emissions from States wholly or partially contained in Subregions 1 through 9 produce large and frequent contributions to downwind nonattainment for both NAAQS. The EPA then examined NOx emissions data along with the OTAG trajectory and modeling results to identify 23 jurisdictions

⁵These areas are considered as having a "monitored" plus "modeled" ozone problem and are referred to as "nonattainment" for the purposes of this discussion.

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which it proposed to determine make a significant contribution to nonattainment of both the 1-hr and 8-hr NAAQS in downwind States. These jurisdictions are: Alabama, Connecticut, Delaware, District of Columbia, Georgia, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Missouri, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Virginia, West Virginia, and Wisconsin.

E. Technical Approach to Preliminary Analysis of Petitions

The EPA is in the process of gathering and reviewing technical information to determine whether EPA should find that certain large upwind stationary sources and/or source categories of NO_x named in each petition contribute significantly to nonattainment in the petitioning States. The EPA expects to propose its findings in a subsequent notice of proposed rulemaking. The following preliminary analysis should not be interpreted as a proposed finding of significant contribution for these petitions.

The EPA has examined the petitions based on the significant contribution analysis in the proposed NO_x SIP call. First, EPA determined if those source areas identified by the petitioners are located in States which EPA, in the proposed NO_x SIP call, proposed to determine make a significant contribution to downwind nonattainment.

Second, EPA examined subregional modeling results to ascertain the predicted contributions to nonattainment relative to the source areas named in each petition.

The source areas named in petitions submitted by Connecticut, Massachusetts, New Hampshire, New York, Rhode Island and Vermont are generally limited to States which were found in the proposed NO_x SIP call to make a significant contribution to downwind nonattainment. The geographic area covered by each petition is shown in Figure 2. Specifically, the New York and Connecticut petitions cover sources in areas extending west and south of each of these States up to the western boundaries of Subregions 2 and 6 and the southern boundaries of Subregions 6 and 7. For the New York petition, this includes all or portions of the following States: Delaware, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia. In addition to these States, the Connecticut petition also covers sources in portions of New York. The Massachusetts and Rhode Island petitions name specific sources in individual counties within the Subregion 6 States of Indiana, Kentucky, Ohio, and West Virginia. The New Hampshire petition includes sources in upwind portions of the Ozone Transport Region and in Subregions 1 through 7, which includes all or portions of

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Connecticut, Delaware, District of Columbia, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Missouri, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Virginia, West Virginia, and Wisconsin. Also, the New Hampshire petition includes a portion of eastern Iowa (which is part of Subregion 1) which EPA, in the proposed NOx SIP call, proposed to determine did not make a significant contribution to downwind nonattainment problems. The Vermont petition named sources in upwind portions of the Ozone Transport Region and in all or portions of Illinois, Indiana, Kentucky, Michigan, North Carolina, Ohio, Tennessee, Virginia, and West Virginia. Further, the petition notes that it intends to cover additional unidentified sources within an area extending 1000 miles Southwest of Vermont if EPA determines the sources to be significantly contributing to Vermont. This broader geographic area includes South Carolina and portions of Alabama, Georgia, Missouri, and Wisconsin. The Vermont petition also includes a portion of eastern Iowa which EPA, in the proposed NOx SIP call, proposed to determine did not make a significant contribution to downwind nonattainment problems. The Pennsylvania petition named Alabama, Georgia, Illinois, Indiana, Kentucky, Michigan, Missouri, North Carolina, Ohio, South Carolina, Tennessee, Virginia, West Virginia, and Wisconsin. However, the Pennsylvania petition

also named several States which EPA, in the proposed NOx SIP call, proposed to determine did not make a significant downwind contribution including: Arkansas, Iowa, Louisiana, Minnesota, and Mississippi. The petition from Maine named source categories for sources in upwind portions of the Ozone Transport Region and generally within all or portions of Subregions 2, 3, 4, 6, and 7. The Maine petition includes all or parts of the following jurisdictions: Connecticut, Delaware, District of Columbia, Maryland, Massachusetts, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, Virginia, and West Virginia. The Maine petition also identified New Hampshire and Vermont as containing sources which contribute significantly to nonattainment in Maine, but in the proposed NOx SIP call these States were not found to make a significant contribution downwind.

Although there are differences between the petitions in terms of the sources named as significant contributors, the petitions have generally targeted NOx emissions from utility and large non-utility (>250 mmBtu/Hr) fossil fuel-fired boilers. In this regard, analyzing the contributions from these emissions categories (i.e. utility and large non-utilities) is somewhat complicated because the subregional modeling in the proposed NOx SIP call quantifies the contributions from all man-made emissions in each subregion,

not just these categories. It is likely that the emissions from these categories produce downwind contributions which are at least roughly proportional to their relative amount of emissions, compared to the total man-made emissions in the subregion. As shown in Table 1, NOx emissions from these categories combined, range from 33 percent to 60 percent of the total 2007 projected NOx emissions within Subregions 1-9⁶. Thus, the utility and large non-utility emissions combined represent a relatively large portion of total NOx emissions within these nine subregions. The collective contribution approach discussed above suggests that if total emissions in an upwind area are found to make a significant contribution to downwind nonattainment, then the individual components of the areas' emissions are considered to be part of the significant contribution. Thus, the subregional modeling results are relevant to the source categories identified in the petitions because these categories are a large component of the total man-made NOx emissions and are therefore expected to produce contributions in proportion to their emissions.

⁶Note that these subregions are important because all man-made emissions in these subregions were found to make large and frequent contributions to downwind nonattainment.

Table 1. Percent of total subregion NOx emitted by utility and large non-utility sources (OTAG 2007 Base Case).

Subregion	Percent
Subregion 1	39
Subregion 2	37
Subregion 3	46
Subregion 4	33
Subregion 5	60
Subregion 6	53
Subregion 7	39
Subregion 8	36
Subregion 9	39
Subregion 10	38
Subregion 11	29
Subregion 12	32

Table 2 provides the contributions to 1-hr and 8-hr nonattainment in each of the petitioning States from those upwind subregions which (a) correspond to upwind areas named in the petitions and (b) contain States which were found to make a significant contribution to downwind nonattainment in the proposed NOx SIP call. These contributions are based on zero-out modeling of all man-made emissions in the subregion. Data are provided for the areas which have both "monitored" violations and "modeled" concentrations exceeding the NAAQS. This information was extracted from Tables II-10 and II-12 in the proposed NOx SIP call. Note that 2 ppb is the lower range of the tabulated contributions, following the convention adopted by OTAG. These results are discussed for each petition:

New York -- This petition named sources in Subregions 2, 6, and 7. The subregional modeling results indicate a number of contributions in the range of 5-10 ppb or more from each of these subregions to both 1-hr and 8-hr nonattainment in New York. Contributions of 15-20 ppb are predicted from Subregion 7 to 1-hr nonattainment and from Subregions 2 and 7 to 8-hr nonattainment.

Connecticut -- Subregions 2, 6, and 7 were named as source areas by Connecticut. For the both 1-hr and 8-hr nonattainment, frequent contributions are predicted from

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each of these subregions. The magnitude of the contributions ranges up to 15-20 ppb for 1-hr nonattainment and up to 10-15 ppb for 8-hr nonattainment.

Pennsylvania -- This petition named States which generally correspond to Subregions 1, 2, 5, 6, 7, 8, and 9. Of these, Subregions 2, 5, 6, 7, and 8 contribute to 1-hr nonattainment in Pennsylvania. The largest and most frequent contributions are predicted to come from Subregions 7 and 6, respectively. No contributions >2 ppb are predicted from Subregions 1 or 9. For 8-hr nonattainment, the largest contributions are from Subregions 2, 6, and 7. The magnitude of the contributions from these three subregions is in the range of 15-20 ppb or more. No contributions to 8-hr nonattainment >2 ppb were predicted from Subregion 9.

Massachusetts -- This petition named sources within a portion of Subregion 6. However, no contributions >2 ppb were predicted to 1-hr nonattainment from this subregion to nonattainment in Massachusetts. Contributions to 8-hr nonattainment from this subregion were in the range of 2-5 ppb.

Rhode Island -- This petition also named sources within a portion of Subregion 6. Contributions from this subregion to 1-hr nonattainment were 5-10 ppb. The predicted

contribution to 8-hr nonattainment from this subregion was in the range of 2-5 ppb.

Maine -- Of the five subregions (i.e. Subregions 2, 3, 4, 6, and 7) which are associated with sources named in Maine's petition, contributions to 1-hr nonattainment were predicted from Subregions 3 and 4, with contributions to 8-hr nonattainment from Subregions 2, 3, 4, and 7. The largest contributions were from Subregion 4 at 10-15 ppb for 1-hr contributions and 15-20 ppb for 8-hr contributions. No contributions were predicted from Subregion 6 to either 1-hr or 8-hr nonattainment.

New Hampshire -- Subregions 1 through 7 are associated with sources named in the New Hampshire petition. Of these subregions, however, only Subregions 3 and 4 are predicted to contribute >2 ppb to 1-hr nonattainment with the largest contributions, >25 ppb, from Subregion 4. Subregions 2, 3, and 4 are predicted to contribute >2 ppb to 8-hr nonattainment with contributions of 10-15 ppb from Subregion 4.

Vermont -- There is no current or predicted "nonattainment" in Vermont, based on 1993-1995 ambient monitoring data and/or model predictions from the OTAG 2007 Base Case.

F. Results of Preliminary Assessment of Section 126 Petitions

As indicated above, the purpose of this preliminary analysis is not to make a proposed finding of "significance" relative to the sources and/or source categories named in each petition. Rather, the intent is to identify the contributions to 1-hr and 8-hr nonattainment in each State based on information developed in the proposed NOx SIP call as part of the significant contribution determination. As a whole, the eight petitions cover sources in States within OTAG Subregions 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, and 12, as well as in Massachusetts, New Hampshire, Rhode Island, and Vermont. Of these, emissions in States covered by Subregions 1, 2, 3, 4, 5, 6, 7, 8, and 9 along with Massachusetts and Rhode Island were proposed, by EPA, to make a significant contribution to downwind nonattainment in the NOx SIP call.

This preliminary assessment indicates that sources in Subregions 2, 3, 4, 5, 6, and 7 contribute to 1-hr nonattainment in at least one of the petitioning States. The 16 States and the District of Columbia that are wholly or partially within these subregions include: Connecticut, Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, Missouri, New Jersey, New York, North Carolina, Ohio,

Pennsylvania, Tennessee⁷, Virginia, and West Virginia. Based on these results, EPA's preliminary assessment indicates that the source categories identified by the petitions that are located within these 16 States and the District of Columbia make a significant contribution to nonattainment of the 1-hr standard. In addition, in the proposed NOx SIP call, EPA proposed that Massachusetts and Rhode Island be considered significant contributors to nonattainment in downwind States, including Maine and New Hampshire. Accordingly, sources in these two States are preliminarily included in this assessment as significant contributors.

Sources in Subregions 1, 2, 3, 4, 5, 6, 7, and 8 contribute to 8-hr nonattainment in at least one of the petitioning States. However, it should be noted that sources in only Subregions 1, 2, 5, 6, 7, and 8 contribute to 8-hr nonattainment in one of the three petitioning States (Massachusetts, Pennsylvania, and Vermont) that requested EPA to make a finding under the 8-hr NAAQS. The 15 States and the District of Columbia which are wholly or partially within the subregions contributing to 8-hr nonattainment in Pennsylvania (i.e. subregions 1, 2, 5, 6, 7, and 8) and

⁷Tennessee is included because it is part of Subregions 5 and 6. Tennessee is also part of Subregion 9 which, based on the subregional modeling, does not contribute to 1-hr nonattainment in any of the petitioning States.

Massachusetts (i.e., subregion 6) and which were proposed to make a significant contribution to downwind nonattainment in the proposed NOx SIP call are Delaware, Georgia⁸, Illinois, Indiana, Kentucky, Maryland, Michigan, Missouri, North Carolina, Ohio, South Carolina, Tennessee⁹, Virginia, West Virginia, and Wisconsin. The EPA's preliminary assessment indicates that the source categories identified by the petitions that are located within these States make a significant contribution to nonattainment of the 8-hr standard (or interfere with maintenance of that standard) in the petitioning States. Because there are no current or predicted nonattainment problems in Vermont, there are no upwind source areas that are included in the preliminary assessment of significant contribution due to the Vermont petition.

As noted above, the petitioning States submitted technical data in addition to the zero-out modeling data just described. The EPA is continuing to review the States' technical data, as well as other data relevant to the

⁸Georgia is included because it is part of Subregion 8. Georgia is also part of Subregion 9 which, based on subregional modeling, does not contribute to 8-hr nonattainment in any of the petitioning States.

⁹Tennessee is included because it is part of Subregions 5 and 6. Tennessee is also part of Subregion 9 which, based on the subregional modeling, does not contribute to 1-hr nonattainment in any of the petitioning States.

petitions, to develop a proposed finding for each petition.

By comparison to the above section 126 analysis, in the proposed NOx SIP call, EPA determined that sources in 22 States and the District of Columbia are significantly contributing to 1-hr and 8-hr nonattainment problems. In the proposed NOx SIP call, EPA considered nonattainment problems throughout the Eastern half of the United States. In the section 126 rulemaking action, EPA is limited to considering nonattainment problems in the 8 petitioning States, which are all located in the Northeast.

III. Preliminary Assessment of Emission Limitations and Compliance Schedules

The EPA is currently analyzing each of the section 126 petitions to determine whether to propose to grant the States' requests for findings of significant contribution or to deny the petitions; as a result, EPA is not prepared to propose a response at this time. If EPA does propose to find that certain source categories described in one or more of the petitions significantly contribute to nonattainment or interfere with maintenance of an ozone standard in a downwind State, then EPA would be authorized to propose new control requirements for those sources.

The EPA anticipates that any requirements it may eventually propose would resemble the controls described in

the proposed NOx SIP call. As noted above, it is EPA's preliminary view that the NOx SIP call rulemaking overlaps considerably with EPA action on the section 126 petitions because both are governed by the requirements of section 110(a)(2)(D) with respect to ozone for a similar geographic region. The EPA intends to employ the extensive analysis in the proposed NOx SIP call action, including the NOx Budget Trading Program (described in a supplemental rulemaking), in developing any proposed remedy for the petitions. Thus, if EPA were to propose to grant any or all of the section 126 petitions, EPA's response would include the proposal of a cap-and-trade program. The EPA expects to base any remedy granted under section 126 on the assumption of a uniform control level for the covered universe of sources, based on the criteria delineated in Section III.C. The following sections outline the remedies sought by petitioners and discuss how EPA would address the petitions if it were to propose granting any or all of them.

A. Remedies Recommended in Petitions

The eight petitions submitted to EPA collectively cover the 23 jurisdictions named by EPA in the proposed NOx SIP call, as well as seven additional States that were not named (Iowa, New Hampshire, Vermont, Arkansas, Louisiana, Mississippi, and Minnesota). This section focuses on the

source categories named in the petitions as significant contributors and the requested relief sought by petitioners.

Several of these petitions reference the OTC NOx MOU, agreed to by eleven Northeastern States and the District of Columbia to implement NOx emissions reductions across the Ozone Transport Region (OTR). The OTC NOx MOU signatories were Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Maryland, Delaware, and the District of Columbia. The OTC NOx MOU commits these States to reductions in ozone season NOx emissions from large utility and industrial combustion sources through implementation of a phased-in regionwide cap-and-trade program. Specifically, affected sources in the OTR are fossil fuel-fired boilers and other indirect heat exchangers with a maximum rated heat input capacity of 250 mmBtu/hr or greater, and electric generating facilities with a rated output of 15 megawatts (MW) or greater.

The OTC NOx MOU established emissions reduction requirements for these sources in the OTR, creating emissions budgets for 1999 (Phase II) and 2003 (Phase III). (Phase I required the installation of reasonably available control technology (RACT) by May 1995.) The requirements vary across three control zones in the region: an inner zone

ranging from the District of Columbia metropolitan area northeast to southeastern New Hampshire (covering all contiguous moderate and above nonattainment areas), an outer zone ranging out from the inner zone to western Pennsylvania, and a northern zone which includes much of northern New York and northern New England (including most of New Hampshire).

For Phase II of the OTC NOx MOU, which begins in 1999, sources in the inner zone are subject to emissions reduction requirements based on the less stringent of an emission rate of 0.20 pounds NOx per million British thermal units of heat input (lb/mmBtu), or a 65 percent reduction from 1990 NOx levels; sources in the outer zone are subject to emissions reduction requirements based on the less stringent of a 0.20 lb/mmBtu rate, or a 55 percent reduction from 1990 NOx levels; and sources in the northern zone must adopt RACT. The Phase III requirements, which may be altered by a "mid-course correction" based on new information such as refined air quality modeling, establish emissions reduction requirements based on the lesser of a 0.15 lb/mmBtu rate, or a 75 percent reduction from 1990 levels for sources in both the inner and outer zones. Northern zone sources would face emissions reduction requirements based on the lesser of a 0.20 lb/mmBtu rate, or a 55 percent reduction from 1990 levels. In both Phase II and III in all three zones,

electric generating facilities less than 250 mmBtu/hr but above 15 MW are subject only to a capping of emissions at 1990 levels for purposes of budget calculation. However, individual States determine specific allocations for each source from their overall budget based on independent allocation formulas, and thus the allocation for these sources will not necessarily reflect this level.

All of the section 126 petitions, except Pennsylvania's, Massachusetts' and Rhode Island's, named States in the OTR as significant contributors. However, only New Hampshire and Maine requested relief beyond OTC NOx MOU requirements from sources in the OTR. It may be noted that the OTC NOx MOU requirements are not federally enforceable at this time since these requirements have not been adopted into SIPs.

Table 3 shows, by petitioner, the named source categories, the named geographic areas, and the requested remedy sought by the petitioning States. Please note that the named source categories are worded as they appear in the petitions.

TABLE 3. EPA's Summary of Section 126 Petitions

State	Named Source Categories	Named States	Request
NY	Fossil fuel-fired boilers or indirect heat exchangers with a maximum heat input rate of 250 mmBtu/hr or greater and electric utility generating facilities with a rated output of 15 MW or greater.	All or parts of IN, KY, MI, NC, OH, TN, VA, WV. Also lists OTR States DE, MD, NJ, PA, but does not request relief.	Establish, at a minimum, emission limitations and a schedule of compliance consistent with the OTC NOx MOU, and a cap-and-trade program.
CT	Fossil fuel-fired boilers or other indirect heat exchangers with a maximum gross heat input rate of 250 mmBtu/hr or greater and electric utility generating facilities with a rated output of 15 MW or greater.	All or parts of IN, KY, MI, NC, OH, TN, VA, WV. Also lists OTR States DE, MD, NJ, NY, PA, but does not request relief.	Establish, at a minimum, emission limitations and a schedule of compliance consistent with the OTC NOx MOU, and a cap-and-trade program.

PA	Fossil fuel-fired indirect heat exchange combustion units with a maximum rated heat input capacity of 250 mmBtu/hr or greater, and fossil fuel-fired electric generating facilities rated at 15 MW or greater.	AL, AR, GA, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, OH, SC, TN, VA, WV, WI.	Establish emission limitations and a compliance schedule for a cap-and-trade program requiring: a) seasonal reductions of the less stringent of 55% from 1990 baseline levels, or 0.20 lbs/mmBtu, beginning by May 1999; b) if necessary, seasonal reductions of the less stringent of 75% from 1990 baseline levels, or 0.15 lbs/mmBtu, beginning by May 2003; c) such additional reductions as necessary beginning in 2005.
MA	Electricity generating plants.	Parts of IN, KY, OH, WV. Also names sources in OTR States, but does not request relief.	Establish emissions limitation of 0.15 lbs/mmBtu or 1.5 lbs/MWh and a compliance schedule.
RI	Electricity generating plants.	Parts of IN, KY, OH, WV. Also names sources in OTR States, but does not request relief.	Establish emissions limitation of 0.15 lbs/mmBtu or 1.5 lbs/MWh and a compliance schedule.

ME	Electric utilities and steam-generating units with a heat input capacity of 250 mmBtu/hr or greater.	Sources within 600 miles of Maine's ozone nonattainment areas (all or parts of NC, OH, VA, WV, and OTR States CT, DE, DC, MD, MA, NJ, NY, NH, PA, RI, VT).	Establish compliance schedule and emissions limitation of 0.15 lbs/mmBtu for electric utilities and the OTC NOx MOU level of control for steam generating units, in a multi-state cap-and-trade NOx market system.
NH	Fossil fuel-fired indirect heat exchange combustion units and fossil fuel-fired electric generating facilities which emit ten tons of NOx or more per day.	All or parts of IL, IN, IA, KY, MI, MO, OH, VA, WV, WI. Also names sources in OTR States CT, DE, DC, MD, MA, NJ, NY, PA, RI.	Establish compliance schedule and emission limitations no less stringent than: a) Phase III OTC NOx MOU reductions; and/or b) 85% reductions from projected 2007 baseline; and/or c) An emission rate of 0.15 lbs/mmBtu.
VT	Fossil fuel-fired electric utility generating facilities with a maximum gross heat input rate of 250 mmBtu/hr or greater and potentially other unidentified major sources.	All or parts of IL, IN, KY, MI, NC, OH, TN, VA, WV. Also AL, GA, IA, MO, SC, WI. Also names OTR sources, but does not request relief.	Establish emissions limitation of 0.15 lbs/mmBtu or 1.5 lbs/MWh and a compliance schedule.

The petitions vary somewhat with regard to the universe of sources they name as significant contributors to their ozone problem. Three of the petitioning States -- New York, Connecticut, and Pennsylvania -- name the same universe of sources covered by the OTC NOx MOU. New Hampshire names fossil fuel-fired indirect heat exchangers and electric generating facilities as well, but uses a tonnage applicability cut-off to include only sources that emit ten tons or more of NOx per day. Massachusetts and Rhode Island name "electricity generating plants" as the universe requiring controls, without naming a specific size cutoff. Finally, Vermont names fossil fuel-fired electric generating facilities of 250 mmBtu or greater.

The petitions also vary regarding the remedy requested. Though all of the petitions request that EPA impose controls in terms of various emissions limitations, four of the eight petitions - New York, Connecticut, Pennsylvania, and Maine - also request that a trading program with a cap, or emissions budget, be established to implement these controls. Massachusetts, Rhode Island, and Vermont request that limitations be established for all named sources at 0.15 lbs/mmBtu, which is the level of control for electric generating facilities used to calculate the budget in the proposed NOx SIP call. Maine requests an emission limitation of 0.15 lbs/mmBtu for named electric utilities,

but the OTC NOx MOU level of control for named steam generating units. New Hampshire requests emission limitations no less stringent than the Phase III OTC NOx MOU reductions, and/or 85 percent reductions from projected 2007 baseline, and/or an emission rate of 0.15 lbs/mmBtu. New York, Connecticut and Pennsylvania all request that emissions limitations consistent with the OTC NOx MOU be imposed on named sources, but only Pennsylvania specifies the outer zone requirements; neither Connecticut nor New York specifies a zone. The level of reduction requested for 2003 in these three petitions specifying basic OTC NOx MOU requirements appears to be less stringent than that in the petitions requesting 0.15 lbs/mmBtu, since the remedy requested would allow sources the option to implement the less stringent of a percentage reduction or an emission rate. In terms of smaller sources named by these three States, Pennsylvania's petition appears to seek somewhat more reductions than the OTC NOx MOU by requiring the same emission level for electric generating facilities less than 250 mmBtu/hr and greater than 15MW as for larger units. Both Connecticut and New York appear to be aligned with the OTC NOx MOU in seeking only a capping of emissions at 1990 levels for these smaller sources.

New York, Connecticut and Pennsylvania recommend a date for the implementation by sources of control requirements:

the OTC NOx MOU schedule of compliance, including its phased-in controls and implementation dates of 1999 and 2003. The remaining States request that EPA establish a schedule of compliance requiring sources to comply with emission limitations as expeditiously as practicable.

B. EPA's Analytic Approach

If EPA proposes to grant a section 126 petition, and thereby proposes to find that identified sources either contribute significantly to nonattainment or interfere with maintenance in the petitioning State, EPA intends to propose emissions reduction requirements for those sources. The EPA would not, however, propose controls on sources other than those named in the petitions under section 126.

To determine the level of requirements to propose, EPA intends to consider the remedies described in the petitions (see III.A. of this section), relevant comments received in a timely manner on today's notice, the availability and cost effectiveness of potential control measures, the ambient impact of the control measures, OTAG's recommendations, and the similar efforts EPA is already undertaking to address the transport problem in the proposed NOx SIP call.

In developing proposed budgets for States as part of the proposed NOx SIP call, EPA assumed the application of a uniform NOx emission rate of 0.15 lb/mmBtu to projected

electricity generating activity levels at large electric generating devices, and 70 percent control for other large stationary sources. The EPA's rationale for assuming these control levels is explained in the proposed NOx SIP call, and is based upon cost effectiveness, OTAG recommendations, the collective contribution approach described in the NOx SIP call notice, equity concerns, EPA's air quality modeling approach, and concerns over emissions shifting (62 FR 60342).

The EPA believes that it needs to coordinate and integrate the proposed NOx SIP call and the section 126 rulemaking to the greatest extent possible in order to reduce the possibility that affected sources would be faced with inconsistent or conflicting control requirements and deadlines. Such inconsistency could hamper the sources' abilities to plan and achieve the needed reductions as cost-effectively as possible. Further discussion of the proposed integration of these two efforts is included in Section IV.B.

The EPA believes that promoting consistent requirements among the States affected by the NOx SIP call and the section 126 rulemaking would greatly facilitate participation in a common trading program to address the transport problem on a regional scale. Therefore, EPA anticipates that any section 126 proposed rulemaking will

attempt to coordinate the schedules for the SIP revisions, and the implementation of reductions required under the proposed NOx SIP call, with the schedule for completing the rulemaking on the section 126 petitions in accordance with the consent decree proposed by the petitioning States and EPA.

In determining the appropriate control requirements to propose in response to the granted section 126 findings, EPA would use the same cost effectiveness approach that it used in the proposed NOx SIP call with respect to stationary sources. In the upcoming proposed rulemaking for the section 126 petitions, EPA intends to present analyses conducted for the proposed NOx SIP call regarding the feasibility, performance, and cost of NOx controls, and factor this into the control level recommendation. The application of this control level would determine the allocation of NOx allowances each source would receive under a trading program.

The EPA's preliminary assessment is that it would propose the control levels assumed in formulating the budgets for the proposed NOx SIP call in response to the section 126 petitions. In addition, EPA's preliminary assessment is that it would propose the full 3-year period for sources to implement those controls. Comments are

sought on these approaches, as indicated in Section IV of today's notice.

Also in the proposal, EPA intends use the Integrated Planning Model (IPM) to explore the cost of achieving emission levels among sources affected by the section 126 rulemaking. The EPA uses the IPM to evaluate the emissions and cost impacts expected to result from the requirements of the proposed NOx SIP call on the electric power generation sector. The IPM has been used for over 10 years to address a wide range of electric power market issues, including environmental policy and compliance planning, and undergoing frequent and extensive review and validation. The EPA has used IPM for many analytic efforts, most recently as a tool to analyze alternative trading and banking programs during the OTAG process in 1996 and 1997, and to analyze the economic impacts of the proposed NOx SIP call.

C. Intent to Implement Controls Through Cap-and-Trade Program

A cap-and-trade program is expected to be the most cost-effective approach to achieving any emissions reductions required under section 126. Under such a program, the sources for which EPA proposes a positive finding would be limited to specified amounts of emissions as a group, but would be authorized to trade emissions.

Four of the eight petitioning States (New York, Connecticut, Pennsylvania, and Maine) requested that EPA establish such a trading program to implement the required reductions. The EPA is proposing a framework for a cap-and-trade program in a supplemental notice to the proposed NOx SIP call to facilitate cost effective achievement of the proposed reductions, ("Purpose of the NOx Budget Trading Program" and "Benefits of Participating in the NOx Budget Trading Program"). If one or more of the section 126 petitions are granted, a remedy can be integrated with this program, consolidating the two actions and lowering the cost of compliance.

The EPA anticipates defining all the program elements for a cap-and-trade program in the proposed rulemaking for the section 126 petitions, including a list of covered sources, monitoring requirements for these sources, an allowance allocation methodology, source-specific NOx allowance allocations for the initial control period, timing of the program, and permitting requirements.

IV. Legal and Policy Issues

A. Issues Involving Significant Contribution

As discussed earlier in Sections I.A and I.C. of this notice, both the section 126 petitions and proposed NOx SIP call are premised on a violation of section 110(a)(2)(D) of

the CAA. This section requires that SIPs prohibit emissions that contribute significantly to nonattainment or that interfere with maintenance downwind¹⁰. Because of the link between section 126 and section 110, EPA should use similar criteria in its analysis for each case.

As described in the proposed NOx SIP call and earlier in this notice, EPA used a "weight of evidence" approach in determining whether sources in one State significantly contributed to ozone nonattainment in another State. This approach applies multiple factors which focus on emission quantities and air quality impacts, as well as, under certain formulations, control costs. It is EPA's intent to use this same "weight of evidence" approach in determining whether or not to grant any of the section 126 petitions.

The EPA is soliciting comment on whether there is any reason why it should rely on a different approach and, if so, what that approach should be. It should be noted that EPA is not soliciting comment on the issues of significant contribution discussed in the proposed NOx SIP call. It is only asking for comment on whether or not the same approach should be used in evaluating the section 126 petitions.

¹⁰As indicated earlier, it is EPA's preliminary interpretation that the cross reference in section 126(b) to section 110(a)(2)(D) should be treated as a cross reference to sentence (i) of the provision, which includes the significant contribution test.

Additionally, EPA is asking for comment on whether it should focus on the contributions to the downwind areas of named sources in a each petition, considered by themselves, or whether EPA should consider the named sources in one petition in conjunction with the named sources in all the other petitions under a type of "collective contribution" approach. In the latter case, even if the emissions from the named sources in a single petition have a relatively minor impact on downwind areas, the emissions may be considered significant if they are considered as part of a broader set of emissions from all the sources named in all the petitions, which together have a larger impact on the same downwind areas.

B. Issues Involving Trading

The EPA is proposing the framework for a cap-and-trade program in its supplemental notice to the proposed NOx SIP call. As noted previously, EPA believes a trading program should be part of any remedy it proposes in response to the section 126 petitions. At this time, EPA is not prepared to define the scope of the trading program it would propose in response to the section 126 petitions, but would like to solicit comment on some important issues regarding trading program development.

First, EPA believes that when a petition identifies as

significant contributors both named sources and generally identified source categories, EPA may make findings of significant contribution, apply controls, and implement a trading program, with respect to all sources within those source categories in geographic areas named in the petitions. Second, EPA foresees that the proposed response to the section 126 petitions would resemble the proposed NOx Budget Trading Program in EPA's supplemental proposed NOx SIP call and that the two efforts could be integrated into one common trading program. Under this common trading program, sources subject to controls under the section 126 rulemaking, or sources in States choosing to participate in the NOx Budget Trading Program in response to the NOx SIP call, or sources in States subject to a Federal implementation plan (FIP) under the NOx SIP call, could trade with one another under a regionwide NOx cap. The EPA solicits comments as to whether the trading program that EPA would propose in response to the section 126 petitions should be essentially the same trading program proposed by EPA in its proposed NOx SIP call, and whether there are any reasons why the programs should not be integrated.

In order to address the ozone transport problem in the most cost-effective manner, EPA believes one trading program can and should be established in response to both the final NOx SIP call and the section 126 petitions. The EPA

believes that there are two principal criteria that sources must meet to be eligible to participate in a cap-and-trade program, as stated in the supplemental notice for the proposed NOx SIP call. The first criterion requires that sources be able to account accurately and consistently for all of their emissions to ensure the trading program goal of maintaining emissions within a cap. The second criterion for participation in a trading program is the ability to identify a responsible party for each regulated source who would be accountable for demonstrating and ensuring compliance with the program's provisions. The EPA solicits comment on these, or additional, criteria that should be considered. Assuming that these criteria are met, and consistent control levels are used in setting emission requirements for the affected sources, EPA supports the establishment of a common trading program for all sources in States subject to the final NOx SIP call who hold EPA-approved SIPs and choose to participate, and all sources subject to any section 126 remedy established by EPA. The EPA would administer this common trading program in collaboration with affected States. The EPA anticipates proposing to establish the geographic boundaries of the common trading program as those States submitting SIPs in response to the final NOx SIP call or subject to FIPs and/or

the sources in geographic areas for which EPA makes a finding for the section 126 petitions.

A common trading program integrating the NOx Budget Trading Program and the section 126 actions would necessarily include those source categories in States for which EPA makes a finding in the section 126 process, sources located in States that are both named in the final NOx SIP Call and which choose to participate in the NOx Budget Trading Program, as well as sources subject to a FIP. States choosing to participate through the NOx SIP call would be required to include a core group of sources in the trading program, but would be provided the option to include additional stationary source categories, and certain qualifying individual stationary sources would be provided the opportunity to opt in. Sources subject to section 126 findings would be required to participate in the common trading program under EPA's section 126 authority. However, EPA does not believe that section 126 provides EPA authority to make findings or require controls beyond the named sources or source categories in the petitions. The EPA seeks comment on this issue of whether it may include additional sources beyond the named sources or source categories in the petitions through the section 126 remedy. Specifically, EPA requests comment on whether the sources EPA includes in the common trading program under the section

126 petitions should be confined to source categories in geographic areas for which petitioning States request, and EPA grants, a finding of significant contribution. In the alternative, EPA requests comment as to whether additional sources not named in a petition, but located in a State where a finding is made under section 126, should be able to voluntarily participate in a trading program remedy. Further, EPA requests comment on whether such a trading program may include sources in other States subject to the NOx SIP call.

Because sources may be included in the common trading program through one of three possible mechanisms (section 126 petitions, NOx SIP Call, and FIP), the sources included in the trading program for purposes of the NOx SIP call may vary from sources included for purposes of the section 126 remedy. The EPA solicits comment as to whether this is problematic for integration concerns.

The EPA does not anticipate that a trading program designed for sources subject to the final NOx SIP call and the section 126 petitions for which EPA makes a finding could be expanded geographically to include sources in geographic areas not subject to requirements under either program. The EPA solicits comment on this preliminary view.

The effect of NOx emissions on air quality in downwind nonattainment areas depends, in part, on the distance

between sources and receptor areas. Sources that are closer to the nonattainment areas tend to have much larger effects on air quality than sources that are far away. In light of this and as discussed in Section IV.C, the EPA plans to evaluate alternative approaches, other than one based on the application of uniform controls, in developing the rulemaking proposal.

The Agency solicits comments on whether a trading program should factor in differential effects of NO_x emissions in an attempt to strike a balance between achieving the cost savings from a broader geographic scope of trading and avoiding the adverse effects on air quality that could result if the geographic domain for trading is inappropriately large or trades across areas are not appropriately adjusted to reflect differential environmental effects. The EPA could consider establishing "exchange ratios" for tons traded between areas. The large number of areas in the petitioning States that are violating the standards and the several different weather patterns associated with summertime ozone pollution episodes complicate the development of a stable set of trading ratios. Alternatively, the Agency could consider establishing subregions for trading within the geographic area that may ultimately be subject any section 126 findings and apply a discount to or prohibit trades between regions.

The Agency solicits comments on this issue.

C. Cost-Effectiveness Issues

Where EPA proposes to grant a section 126 petition and, therefore, also to propose control measures, it plans to use the cost-effectiveness approach used in the proposed NOx SIP call action with respect to stationary sources. This approach focuses on the selection of reasonable, cost-effective control measures and the application of uniform controls. Further, as in the proposed NOx SIP call, EPA plans to propose to require sources in upwind areas to decrease emissions through cost-effective controls that compare favorably, at least qualitatively, with the costs of controls downwind and that reduce ozone levels downwind.

However, the effect of NOx emissions on air quality in areas violating the ozone air quality standard depends, in part, on the distance between sources and receptor areas. Sources that are closer to areas violating the air quality standards tend to have larger effects on air quality than sources that are far away. If there is a significant variation in the contribution of emissions in different subregions within the geographic area that may be subject to any section 126 findings, alternative approaches to developing a remedy, other than one based on the application of uniform control measures, will be evaluated. On the

other hand, the large number of nonattainment areas in the States that filed petitions and the several different weather patterns associated with summertime ozone pollution episodes should also be considered when evaluating a subregional approach. The EPA plans to evaluate alternative approaches at levels below and above the levels used in the calculation of the budgets in the proposed NO_x SIP call as well as regional approaches that apply different control levels to different geographic regions.

The EPA is soliciting comment on approaches for the section 126 control remedy that factor in the differential effects on air quality in areas violating the standard. Comments advocating alternative approaches would be most helpful if they set forth concrete proposals on what analysis should form the basis of the remedy. For example, some have suggested an approach that would attempt to quantify more explicitly the cost-effectiveness of emissions reductions in terms of improvements in ambient ozone concentrations in areas violating a standard (measures, for example, as cost per population-weighted changes in parts per billion peak ozone concentration) taking into account the location of control measures through subregional modeling.

The EPA invites comment on whether the criteria for cost effectiveness applied in any section 126 petition

decision should be the same as the criteria used in the proposed NOx SIP call action; or whether the criteria should be different because, for example, there are fewer sources involved in the section 126 petitions than in the proposed NOx SIP call. (The EPA is not asking for comment, in this notice, on the issue of cost effectiveness as it applies to the proposed NOx SIP call, but only on whether the approach taken in the proposed NOx SIP call is appropriate for the section 126 action.) Similarly, EPA invites comment on whether to consider the cost effectiveness of controls for sources named in a single petition or whether EPA should look at the collective cost effectiveness of controls for all the sources named in all the petitions which EPA may propose to grant. In both cases, even if some sources' emissions reduction requirements taken by themselves are not cost effective, EPA believes that these controls may be considered cost effective if they are part of a set of controls which, when taken as a whole, are considered cost effective.

The EPA also invites comments on whether and to what extent cost effectiveness should differentiate between large and small sources within a specific source category. Specifically, EPA notes that its proposed NOx SIP call included a cutoff of 25 MWe for utility boilers and 250 mmBtu for non-utility boilers; units below these cutoffs

were not included in emissions decrease calculations for the statewide budgets. Because certain petitions suggest controlling 15-25 MWe generators, and one suggests controlling all electric generators, EPA specifically invites comment on the cost effectiveness of these requests.

As a preliminary matter, EPA anticipates making determinations as to cost effectiveness through the same approach as discussed in the proposed NOx SIP call. Specifically, EPA would employ the following steps in proposing the control levels: First, EPA would compile a list of available NOx control measures for the various emissions sectors named in the petitions. For the control measures on this list, EPA would estimate the average cost effectiveness of those controls. The average cost effectiveness is defined as the cost of a ton of reductions from the source category based on full implementation of the proposed controls, as compared to the pre-existing level of controls.

Second, EPA would determine the average cost effectiveness of a representative sample of recently proposed and adopted State and Federal controls. The EPA believes that the average cost effectiveness for measures that would form the basis of the remedy to the petitions should be comparable to the average cost effectiveness of those controls recently proposed and adopted. Third, EPA

would use this information to determine which controls may be appropriate to propose as the remedy for any petitions that are proposed to be granted. Fourth, EPA would determine that the proposed controls--or generally comparable levels--result in an adequate level of ambient reductions downwind. The EPA used this approach to propose the level of control assumed in the proposed NOx SIP call. The EPA solicits comments on whether this approach should be changed in the section 126 rulemaking.

D. Legal Issues

The EPA also solicits comment on a series of issues concerning the legal interpretation of section 126(b) and associated provisions. Section 126(b) provides that a State may petition EPA for a finding that specified sources in other States emit air pollutants "in violation of the prohibition of section 110(a)(2)(D)(ii) of this title or this section." Section 110(a)(2)(D) provides the requirement that a SIP contain adequate provision:

(i) prohibiting, consistent with the provisions of this title, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will--

(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to [any] national . . . ambient air quality standard, or

(II) interfere with measures required to be included in the applicable implementation plan for

any other State under part C to prevent significant deterioration of air quality or to protect visibility.

(ii) insuring compliance with the applicable requirements of sections 126 and 115 (relating to interstate and international pollution abatement). . .

.

One issue is whether the cross-reference in section 126(b) to "section 110(a)(2)(D)(ii)" is valid, or instead should be considered to be a typographical error that should be read to refer to section 110(a)(2)(D)(i). The EPA has offered this view in general and preliminary guidance.

(Nichols Letter cited earlier in Section I.B.)

Some have argued that section 126(b) should be read literally, and that this reading would require EPA to deny the petitions submitted to date on grounds that section 126 allows a State to file a petition with EPA only to force other States to meet the requirements of section 126 itself, (i.e., the requirement in section 126(a) that SIPs include provisions to require new and modified major stationary sources to give preconstruction notification to nearby States under certain circumstances). (Letter from Henry V. Nickel, et.al, Counsel for the Utility Air Regulatory Group, to Carol M. Browner, Administrator, U.S. EPA, November 21, 1997 (UARG Letter); Letter from Betty D. Montgomery, Attorney General of Ohio, et.al, to Richard Wilson, Acting Assistant Administrator for Air & Radiation, U.S. EPA,

November 5, 1997 (letters included in the docket to this rulemaking).)

If the proper interpretation of section 126(b) is that the cross-reference represents a typographical error, an issue arises as to what the appropriate cross-reference should be. The EPA has offered the view, in general and preliminary guidance, that the proper cross-reference should be to section 110(a)(2)(D)(i) (Nichols Letter). Some have argued that the appropriate cross-reference should be to section 110(a)(2)(D)(i)(II), and not section 110(a)(2)(D)(i)(I) (UARG letter). The effect of this reading would be to limit section 126 petitions to cases in which the upwind sources are adversely affecting (i) clean areas under the prevention of significant deterioration requirements of part C of Title I of the CAA or (ii) visibility.

A further issue arises as to the interpretation of the requirement of section 110(a)(2)(D)(i) that the "SIP contain adequate provisions prohibiting, consistent with the provisions of this title," sources from emitting air pollutants in amounts that contribute significantly to nonattainment problems downwind. Some have argued that the phrase "consistent with the provisions of this title" should be interpreted to limit the requirements imposed with respect to sources in a contributing State to the control

requirements that the petitioning State demonstrates would be necessary to allow the petitioning State to reach attainment of the NAAQS after the petitioning State implements the applicable requirements under section 182 (requirements for nonattainment areas), and under sections 176A and 184 (transport region provisions). The EPA solicits comments on each of the issues of interpretation noted earlier.

Additional legal issues, which assume that section 126(b) should be read to authorize EPA to grant the petitions if they have an adequate technical basis, concern:

- Whether, if EPA grants a section 126 petition, EPA may allow sources a period longer than 3 years from the date of granting the petition to implement required controls under section 126(c).
- Whether administrative complexity is an appropriate factor to consider in determining whether to grant a petition with respect to certain sources, so that EPA would have the discretion to determine not to grant a finding with respect to, for example, smaller sources that would be administratively complex for EPA to regulate.
- Whether EPA should evaluate each of the section 126 petitions under both the 1-hr ozone NAAQS and the 8-hr

ozone NAAQS or whether EPA should limit its evaluation of the 8-hr standard only to those petitions which cite the 8-hr standard as a basis for their petition.

- Whether EPA has the authority to evaluate petitions under the 8-hr standard in light of the fact that EPA has not yet designated areas under the 8-hr standard or required SIP revisions under that standard.
- Whether EPA, in determining whether sources are significant contributors to nonattainment problems downwind, may consider the impact of upwind sources named in a petition on only the petitioning State, or whether EPA may consider the impact of upwind sources named in one petition on other petitioning States (or non-petitioning States).

V. Schedule for Rulemaking Action on Section 126 Petitions

As discussed in the Section I Background, the eight petitioning States have sued EPA to establish a schedule for rulemaking on the section 126 petitions, and EPA and those States have filed with the court a proposed consent decree. The EPA took comment on the proposed consent decree under section 113(g) of the CAA and is considering those comments. The EPA has not asked the court to lodge the consent decree.

Section 2(b) of the proposed consent decree requires that EPA publish in today's ANPR "the schedule set forth in

[the] consent decree for finalizing action on the section 126 petitions, including the date and location of the public hearing."

The proposed consent decree sets forth the relevant schedule as follows:

3. EPA will publish in the Federal Register a notice of proposed rulemaking regarding the section 126 petitions no later than September 30, 1998....

5. a. EPA will take a final action on the section 126 petitions no later than April 30, 1999.

b. Unless EPA takes the final action described in paragraph 6, as to each individual petition, EPA's final action will be to --

(i) Grant the requested finding, in whole or part; and/or

(ii) Deny the petition, in whole or part.

c. Unless EPA denies a petition in whole, its final action will include promulgation of the Proposed Remedy for sources to the extent that a requested finding is granted with respect to those sources.

6. EPA shall be deemed to have complied with the requirements of Paragraph 5(a) if it instead takes a final action by April 30, 1999, that --

a. Makes an affirmative determination concerning the technical components of the "contribute significantly to nonattainment" or "interfere with maintenance" tests under CAA section 110(a)(2)(D)(i), 42 U.S.C. sec. 7410(a)(2)(D)(i);

b. Further provides that--

(i) If EPA does not issue a proposed approval of the relevant upwind State's SIP

revision (submitted in response to the NOx SIP call) by November 30, 1999, then the finding will be deemed to be granted as of November 30, 1999, without any further action by EPA;

(ii) If EPA issues a proposed approval of said SIP revision by November 30, 1999, but does not issue a final approval of said SIP revision by May 1, 2000, then the finding will be deemed to be granted as of May 1, 2000, without any further action by EPA;

(iii) If EPA issues a final approval of said SIP revision by May 1, 2000, EPA must take any and all further actions, if necessary to complete its action under section 126, no later than May 1, 2000; and

c. Promulgates the Proposed Remedy for sources to the extent that an affirmative determination is made with respect to those sources.

A public hearing on the future proposed rulemaking on the section 126 petitions will be held on October 28 and 29, 1998 at the EPA Auditorium at 401 M Street SW, Washington, DC, 20460. The oral testimonies, as well as all written comments received during the comment period for the proposed rulemaking, will be considered in the development of the final rulemaking.

VI. Impact on Small Entities.

The Regulatory Flexibility Act (RFA), 5 U.S.C. 601 et seq., provides that whenever an agency is required to publish a general notice of proposed rulemaking, it must prepare and make available a regulatory flexibility analysis, unless it certifies that the proposed rule, if

promulgated, will not have "a significant economic impact on a substantial number of small entities." *Id.*, section 605(b).

No such requirements or certification apply in the case of an advance notice of proposed rulemaking. However, in accordance with section 609(a)(1) of the RFA, EPA is today notifying the public that if EPA grants the findings requested by the petitioning States, the controls that EPA would promulgate may have a significant economic impact on a substantial number of small entities. Accordingly, EPA has begun an informal outreach process to work with the Small Business Administration (SBA), the Office of Management and Budget (OMB), and a number of small-entity representatives. On April 14, 1998, EPA held a meeting in Washington, D.C. to provide an opportunity for small-entity representatives to provide advice and recommendations and to join in a discussion of the issues related to small-entities. Representatives from SBA and OMB also participated in the meeting. If this outreach and further analysis show that EPA's action appears likely to have a significant adverse impact on a substantial number of small entities, EPA would then convene a Federal Small Business Advocacy Panel for this rulemaking under the Small Business Regulatory Enforcement Fairness Act (SBREFA). The EPA would examine such issues as the number of small entities likely to be

affected by the rule; the associated compliance, reporting and recordkeeping burdens; Federal rules which might duplicate, overlap, or conflict with the rule; and alternative compliance strategies and approaches that would help to minimize any significant economic impact on small entities.

Dated:

Carol M. Browner,
Administrator