

MEMORANDUM

SUBJECT: Ozone Attainment Dates for Areas Affected by
Overwhelming Transport

FROM: Mary D. Nichols
Assistant Administrator
for Air and Radiation (6101)

TO: Director, Air, Pesticides and Toxics
Management Division, Regions I and IV
Director, Air and Waste Management Division,
Region II
Director, Air, Radiation and Toxics Division,
Region III
Director, Air and Radiation Division,
Region V
Director, Air, Pesticides and Toxics Division,
Region VI
Director, Air and Toxics Division,
Regions VII, VIII, IX, and X

The purpose of this memorandum is to provide guidance on attainment dates for ozone nonattainment areas affected by overwhelming transport. In particular, a number of States have expressed concern that it may be difficult or impossible for some areas to demonstrate attainment by the statutory attainment date because they are affected by overwhelming transport of pollutants and precursors from an upwind area with higher classifications (and later attainment dates). (Reference to upwind area in this memorandum and the attachment may imply that there is more than one area involved.) States containing such areas face difficulty in complying with two specific requirements:

1. Submitting an attainment demonstration by November 15, 1994 that includes measures for specific reductions in ozone precursors, as necessary, to attain by the statutory attainment date.

2. Actually demonstrating attainment through monitoring data by the statutory attainment date.

We believe that, due to conflicting provisions of the Act, it is reasonable to temporarily suspend the attainment date for these areas without bumping them up to a higher classification for the purpose of the two requirements listed above. A revised attainment date will be determined based on the analyses described in the attachment to this memorandum. The attachment also provides the legal rationale for this approach, along with specific criteria that States must meet. This policy does not relieve any State of the obligation to meet any other requirement of the Act. This memorandum describes current policy and does not constitute final action. Final action will be taken in the context of notice-and-comment rulemaking on the relevant SIP submittals.

This approach is premised on the requirement that the area in question clearly demonstrates through modeling that transport from an area with a later attainment date makes it practicably impossible to attain the standard by its own attainment date. This modeling is expected to be submitted on the same schedule as the required modeled attainment demonstration due November 15, 1994. The modeling must support the new attainment date which should be as expeditious as practicable, but no later than the attainment date of the area causing the delay. The State must specify the new attainment date in its SIP.

The EPA encourages upwind and downwind areas to consult with one another and the EPA Regional Offices to coordinate on this issue. Immediately after the downwind area determines that it plans to request an attainment date extension, it should notify the appropriate Regional Office. The Regional Office should then notify any affected upwind area of the intentions of the downwind area and its obligations under this policy. The EPA may use its authority under sections 110(a)(2)(D)(i)(I) and 110(k)(5) to issue a call for a SIP revision for the upwind area to ensure that it provides the necessary analyses and control measures needed to prevent significant contribution to the downwind area's nonattainment problem.

The attachment does not specifically address all of the modeling issues related to this demonstration. We recommend that Regions work with our Technical Support Division to determine what is appropriate for each area.

The EPA is also developing a general transport policy that will address situations where areas have difficulties reaching or maintaining attainment because of large-scale transport.

Please share this information with your States and appropriate local air pollution control agencies. Any general

questions about this approach may be addressed to Kimber Scavo at (919) 541-3354, or Laurel Schultz at (919) 541-5511. Specific questions concerning modeling should be addressed to Ellen Baldrige at (919) 541-5684.

Attachment

cc: John Seitz
Rob Brenner
Richard Wilson
David Doniger
Sally Shaver
William Hunt
Phil Lorang
Lydia Wegman
Alan Eckert
Rich Ossias

bcc: Ellen Baldrige
Gary Dolce
Ned Meyer
Kimber Scavo
Laurel Schultz
Howard Hoffman
Joe Tikvart
John Silvasi
Tom Helms
Jeff Clark
Doug Grano
David Cole
Sharon Reinders
John Bachmann
Jonathan Martel

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This response was coordinated with OGC (Hoffman and Ossias),
Regional Office Transport and SIP Control Strategy Work Groups)
and Congressional Committee staff

ATTACHMENT

- I. Background. The Act may be interpreted to allow a later attainment date than generally applicable to a particular nonattainment classification to address areas affected by overwhelming transport. Such a later attainment date may be justified for a downwind area (i.e., the area receiving transported pollutants) for which it is practicably impossible to demonstrate attainment by the date applicable to other areas of the same classification due to transport from the upwind area (i.e., the area generating the transported pollutants) with later attainment dates. The new attainment date would be as soon as practicable based on the maximum acceleration practicable for emissions reductions in the downwind area and in the upwind area. The attainment date may not be extended beyond the attainment date for the responsible upwind area.

The upwind area and the downwind area would each be required to conduct an analysis in order to define what practicable acceleration of controls is possible for each area. If an analysis from the upwind area is not available in an adequate amount of time before the submittal date of the attainment demonstration, the downwind area may, at least initially, assume the attainment date of the upwind area if the downwind area follows the criteria outlined in this policy.

- II. Minimum Criteria. This section identifies the requirements for an extension, requirements for the downwind area SIP, and requirements for the upwind area SIP. It should be noted that an area can request, and EPA can approve, an attainment date extension separate from the attainment demonstration. In order to do this, the State would have to submit a request to EPA with the supporting information discussed below. The EPA will take rulemaking action on such requests to temporarily suspend the original attainment date. Final approval of an attainment date extension--with a newly specified attainment date--will depend on the results of the attainment demonstrations for both the upwind and downwind areas. If the State does not submit an attainment demonstration, EPA will make a finding of incompleteness or failure to submit. Alternatively, States may submit the extension request and attainment demonstration together.
 - A. In order for an area to qualify for an extension, it must demonstrate that emissions reduction measures contained in the SIP would be, at a minimum, sufficient to achieve

attainment by the date generally applicable for the area's classification but for the overwhelming amount of transported pollutants into the area from the upwind area. This demonstration may include using the Regional Oxidant Model for determining boundary conditions. The Urban Airshed Model, or any other analytical method determined by EPA to be at least as effective, must be used for determining the control strategy.

B. The SIP for the downwind area must include the following in order not to receive a finding of failure to submit or incompleteness and to receive final approval of a revised attainment date:

1. Adoption of all mandatory control requirements for an area of its classification. It may be necessary for the downwind area's SIP to contain more than the mandatory measures required for its current classification in order to demonstrate attainment in this "but for" analysis. All measures needed to attain "but for" overwhelming transport must be implemented by the downwind area's original attainment date.
2. Rate-of-progress requirements out to the original attainment date. A downwind area is not required to do milestone compliance demonstrations for years following the original attainment date. However, the downwind area would be required to maintain the rate-of-progress target and would still be required to do periodic inventories every 3 years until the area was redesignated to attainment. This periodic inventory could be used for tracking purposes.
3. A demonstration that overall emission reductions will provide for attainment in the area by its new attainment date. The demonstration should reflect the level of emissions that are expected in the downwind area by the new attainment date (including emission reductions and growth) and should use boundary conditions that reflect expected emissions in the upwind area by the new attainment date.

It should be noted that the downwind area still must ensure that its emissions will not interfere with attainment in areas farther downwind. The EPA will

evaluate this portion of the demonstration on a case-by-case basis.¹

4. A modeling analysis to show that the State has adopted all practicable control measures that would provide for attainment earlier than the revised attainment date.² At a minimum, implementation of mandatory control measures and the additional rate-of-progress requirements for the next higher classification should be evaluated.
- C. The SIP for the upwind area must include the following in order not to receive a finding of failure to submit or incompleteness, and for the downwind area to receive final approval of a revised attainment date:
1. Adoption of all mandatory control requirements for an area of its classification.
 2. A demonstration that emission reductions contained in the SIP will provide for attainment by its statutory attainment date. Note that if the upwind and downwind areas are in separate domains and the downwind area fails to attain by the revised attainment date, the upwind area may have to implement additional controls beyond what was needed for attainment in its own area.
 3. An analysis to determine whether the downwind area can attain prior to the upwind area's attainment date. This should include an evaluation of at least one interim date and a determination of whether it is practicable to accelerate measures in order to expedite attainment in the downwind area. In choosing the interim date, the upwind area should consider when emission reductions are expected to occur. In addition, the upwind area should look at the predicted ozone concentrations at its attainment date. If the predicted concentrations are close to the standard, the interim date should be close to the upwind area's attainment date.

¹This requirement is found in section 110(a)(2)(A) of the Act in the case of intrastate transport, and section 110(a)(2)(D)(i)(I) in the case of interstate transport.

²The downwind area may use as a screening test eliminating all its emissions to see if it would accelerate attainment.

The upwind area is not obliged to accelerate reductions in its area when the demonstration shows that such acceleration would be clearly impracticable in order to allow the downwind area to attain by the date generally applicable for the area's classification, or earlier than the selected new attainment date for the downwind area.

If the area does not conduct an analysis or EPA does not agree with the analysis, then EPA may disapprove the SIP for interfering with attainment in the downwind area.³

Examples of when accelerating controls would be determined to be clearly impracticable include the following:

- (a) The control strategy relies on national measures which would be implemented in the out years (since it would be beyond the State's control to accelerate Federal measures), and EPA believes that it would be impracticable for the State to adopt its own rules earlier. (The State would continue to be responsible for adoption of measures that provide equivalent emission reductions should EPA not promulgate national measures by its statutory deadline.)
- (b) The measures require a long preparation time that could not be practicably begun earlier.
- (c) Any other measure in the SIP that the upwind area adequately demonstrates cannot be accelerated, because of excessive economic burdens or technological reasons.

III. Determination of the New Attainment Date for the Downwind Area.

The downwind area would need the results of the upwind area analysis in order to determine a later attainment date. Because the upwind area's analysis and attainment demonstration are not expected to be available by November 5, 1994, the downwind area can temporarily use the

³This authority is found in section 110(a)(2)(A) of the Act (intrastate transport), and 110(a)(2)(D)(i)(I) (interstate transport).

upwind area's attainment date for the purpose of developing an attainment demonstration. The downwind area would assume that the upwind area had done everything required for the upwind area to attain. When later information becomes available from the upwind area, EPA may require additional analysis by the downwind area and a SIP revision to adjust the attainment date of the downwind area. The purpose of the additional analysis would be to reevaluate the assumptions used by the downwind area in its attainment demonstration.

If the downwind area fails to attain by its revised attainment date, EPA does not intend to bump the area up to the next higher classification. Instead, if the downwind area expects that it will fail to attain by the revised date due to overwhelming transport from the upwind area, the downwind area should submit a SIP revision as soon as possible requesting a further extension of the attainment date.

- IV. Example of Overwhelming Transport (see II.A.1). This example assumes a 1999 attainment date for the downwind area and a 2007 attainment date for the upwind area. The downwind area would run a 1999 scenario using 1999 boundary conditions. If there is an overwhelming transport problem from the upwind area, the downwind area will likely not show attainment. The downwind area would then run a 1999 scenario using 2007 boundary conditions. If the downwind area shows attainment, it has demonstrated overwhelming transport. If the downwind area still does not show attainment, however, this may indicate that it contributes to its own problem (provided the upwind area shows attainment by 2007) and additional control measures may be needed in the downwind area.
- V. Intrastate Nonattainment Areas. The policy described above would also apply to a downwind area when the downwind and upwind areas are in the same State.
- VI. Legal Rationale. The legal argument supporting this interpretation rests on the following key points:

Sections 181 and 182 provide for attainment "as expeditiously as practicable," but establish later deadlines for attainment in more polluted areas, and a graduated program of additional control measures that the more polluted areas must accomplish over the longer timeframe. The progress requirements in section 182(c)(2)(B)

contemplate fairly steady progress until the attainment date.

The provisions of the Act also make upwind areas responsible for their effect on downwind areas:

1. Under section 110(a)(2)(D)(i)(I), each State's SIP is to prohibit, "consistent with the provisions of [title I]," emissions which will "contribute significantly to nonattainment in . . . any other State." The EPA interprets section 110(a)(2)(A) to incorporate the same requirement in the case of intrastate transport.
2. Sections 176A and 184 provide for regional ozone transport commissions that may recommend that EPA mandate additional control measures regionwide, when necessary, to allow an area in the region to reach attainment by its attainment date, in accordance with section 110(a)(2)(D)(i)(I).

These provisions indicate that Congress intended upwind areas to be responsible for preventing interference with timely downwind attainment, but that Congress recognized that more polluted areas may practicably require more time to attain, and intended that these areas achieve steady progress in the meantime. Read together, however, these provisions apparently fail to address circumstances where more polluted upwind areas may interfere with attainment downwind during the time that the upwind areas are required to reduce their own emissions.

Arguably, Congress did not intend the section 110(a)(2)(D)(i)(I) obligation to prevent contribution to other nonattainment areas to supersede the practicable attainment deadline and graduated control scheme in sections 181 and 182, especially since section 110(a)(2)(D)(i)(I) specifically applies only "to the extent consistent with the provisions of [title I]." The same rationale applies in the intrastate context under section 110(a)(2)(A).

Likewise, it would be an odd or even absurd result for downwind areas unable to attain due to transport to be penalized for failure to address a problem that is beyond their ability to control.

- F. The EPA reads these provisions together to avoid arguably absurd or odd results and to, on balance, give effect to as much of Congress's manifest intent as possible. Requiring that the upwind and downwind areas reduce their contribution

to the nonattainment problem to the extent and as quickly as practicable, and avoiding penalizing the downwind areas for failure to do the impossible, constitutes a permissible balance.