



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

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OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Guidance on 8-Hour Ozone Designations for Indian Tribes

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

TO: Air Directors, Regions I-X

The attached document, "Guidance on 8-Hour Ozone Designations for Indian Tribes," supplements the Boundary Guidance on Air Quality Designations for the 8-Hour Ozone National Ambient Air Quality Standards and 8-Hour Designation, issued March 28, 2000, by the Environmental Protection Agency (EPA). This document offers Tribes additional information on recommendations for designating areas as attainment/unclassifiable or nonattainment for the 8-hour ozone standard, if they choose to make recommendations to EPA. Its purpose is: (1) to provide Tribes an explanation of the Clean Air Act section 107 designation process and how it applies to them; (2) to describe the factors a Tribe should consider when recommending a designation for lands or areas within the Tribe's jurisdiction; and (3) to explain how EPA will consult with Tribes.

The accompanying guidance offers flexibility to each Regional Office to tailor outreach efforts to the Tribes in your region in a manner consistent with the relationships you have developed and the structures of Tribal governments in your Region. The time line for making designation recommendations and for EPA to promulgate designations is potentially very short for both States and Tribes. However, due to the time needed for EPA to communicate this guidance and to provide assistance to the Tribes, you should allow Tribes until September 30, 2000, to recommend designations for the 8-hour ozone standard.

I want to underline the importance of giving Tribes the opportunity to learn about and to give input to this designation process. Regional Offices should begin now to contact Tribes, send out this guidance, encourage discussion, and provide assistance for those Tribes interested in making a designation recommendation by September 30, 2000. Regional offices should also start to review available data and develop preliminary designations for lands or areas within their Tribes' jurisdiction.

This document reflects the contributions from six regional offices who worked with an OAQPS team, and OAQPS appreciates their willingness to help produce this guidance. Tribal representatives gave input to this document on June 20. Questions on this guidance may be directed to Sharon Reinders at 919-541-5284, or Julie McClintock at 919 541-5339.

Please share this Guidance with your States, as well as the Tribes.

cc: Deputy Regional Administrators, Regions I-X
Margo Oge, OTAQ

Guidance on 8-Hour Ozone Designations for Indian Tribes

The Boundary Guidance on Air Quality Designations for the 8-Hour Ozone National Ambient Air Quality Standards, issued March 28, 2000 to State and local air pollution control agencies and Tribes provides the basis for this document. (This is available on EPA website www.epa.gov/airlinks/). The purpose of this document is threefold: (1) to provide an explanation of the process for designating areas under §107(d) of the Clean Air Act (CAA) for the 8-hour ozone standard and how it applies to Tribes; (2) to describe the factors Tribes should consider when recommending a designation for lands within their jurisdiction; and (3) to explain how the Environmental Protection Agency (EPA) will consult with Tribes.¹ Throughout this document EPA will refer to Tribal lands or areas as "Indian country".²

The EPA promulgated a revised 8-hour ozone National Ambient Air Quality Standard (NAAQS) in July 1997. The requirement for EPA to designate whether an area is attainment/unclassifiable or nonattainment following promulgation of a NAAQS, and the time line for making such designations is contained in section 107(d)(1) of the Clean Air Act (CAA or Act) and §6103 of the Transportation Equity Act for the 21st Century (TEA-21 §6103(a)). Under these statutory provisions, EPA is required to designate areas for the revised standard by July, 2000. The EPA, with this memorandum, provides guidance for Tribes describing the criteria for drawing boundaries for nonattainment areas and setting deadlines for the steps in the designation process.

EPA invites all eligible Tribes to submit designation recommendations, and in any event, will consider all Tribal designation recommendations, whether or not a Tribe has been determined to be eligible for this purpose. Interested Tribes should submit their recommendations for area designations and boundaries with supporting documentation as described in the March Boundary Guidance to EPA by September 30, 2000. This timing was selected because EPA recognizes that it is unreasonable for Tribes to meet the deadlines for the States, since EPA is only now issuing this guidance and needs to provide adequate time for consultation between EPA and the Tribes on their specific recommendations. Even so, a rapid response is needed if a Tribe wishes to make a recommendation to EPA on a designation for the 8-hour ozone standard by September 30. However, it should be noted that Tribes are not

¹ This document contains EPA policy and does not establish a binding norm nor finally determine the issues addressed. This guidance is not binding on States, Tribes, the public, or EPA. When EPA approves a designation, it become binding on Tribes, the public, and EPA as a matter of law.

² For definition of "Indian country" see 18 U.S.C. § 1151.

required to recommend designations³. The EPA intends to review and respond to the Tribal recommendations by late fall. From October until March 2001, EPA will consult with affected Tribes if EPA wishes to modify a designation recommendation. The EPA will not issue final designations prior to late March 2001 because, pursuant to the CAA, it must provide Tribes with 120 days to consider any modifications that EPA may propose to make to each Tribe's designation recommendation. The EPA will promulgate the designation it deems appropriate in cases where Tribes do not make their own recommendations as it would for States.

The following questions and answers explain the criteria for drawing boundaries for nonattainment areas and the steps in the designation process.

1. What is ozone and how is it regulated?

Ground-level ozone, the primary constituent of smog, continues to be a pervasive pollution problem in areas throughout the United States. Ozone is not emitted directly into the air but is formed by the reaction of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) in the presence of heat and sunlight. Ground-level ozone forms readily in the atmosphere, usually during hot summer weather. VOCs are emitted from a variety of sources, including motor vehicles, chemical plants, refineries, factories, manufacturing consumer and commercial products, and other industrial sources. Nitrogen oxides are emitted from motor vehicles, power plants, and other sources of combustion. Ozone and the precursor pollutants that cause ozone also can be transported into an area from pollution sources found hundreds of miles from the area.

Increased hospital admissions and emergency room visits for respiratory causes have been associated with ambient ozone exposures. Repeated exposures to ozone can make people more susceptible to respiratory infection, result in lung inflammation, and aggravate pre-existing respiratory diseases such as asthma. Ozone also affects vegetation and ecosystems, leading to reductions in agricultural and commercial forest yields, reduced growth and survivability of tree

³ The CAA, §301(d), authorizes EPA to treat eligible Indian Tribes in the same manner as States. Pursuant to §301(d)(2), EPA promulgated regulations known as the "Tribal Authority Rule" (TAR) on February 12, 1998 that specifies those provisions of the Act for which it is appropriate to treat Tribes as States, 63 FR 7254, codified at 40 CFR §49(1999). The TAR also establishes procedures and criteria by which Tribes may receive from EPA a determination of eligibility which is a requirement for Tribes to manage CAA and other Federal programs. Under the TAR, Tribes may choose to develop and implement their own CAA programs, but are not required to do so. The designations process contained in §107(d)(1) of the Act is included among those provisions determined appropriate by EPA for treatment of Tribes in the same manner as States. Under the TAR, Tribes generally are not subject to the same submission schedules imposed by the CAA on States.

seedlings, and increased plant susceptibility to disease, pests, and other environmental stresses (e.g., harsh weather). In long-lived species, these effects may become evident only after several years or even decades, thus having the potential for long-term effects on forest ecosystems.

Ozone is regulated under the CAA. Under the CAA, EPA is required to set NAAQS for pollutants considered harmful to public health and the environment. EPA adopted the 8-hour ozone NAAQS in July, 1997. In May 1999, and as modified in October 1999, the U.S. Court of Appeals for the D.C. Circuit remanded the 8-hour ozone standard and determined that the CAA limits the manner in which EPA can implement it. However, the court affirmed EPA's authority to make designations for the standard.

2. What are air quality designations?

The EPA is required to designate geographic areas as attainment, unclassifiable, or nonattainment under section 107 of the CAA after promulgating a new or revised NAAQS. Section 107(d)(1)(A) of the CAA states that areas should be designated as follows:

1. Nonattainment if the area does not meet the NAAQS, or has sources that contribute to ambient air quality in a nearby area that does not meet the NAAQS,
2. Attainment if the area meets the NAAQS (unless the area contributes to ambient air quality in a nearby nonattainment area that does not meet the NAAQS), and
3. Unclassifiable if the area cannot be classified as meeting or not meeting the NAAQS on the basis of available information.

The designation of an area affects what must be done to implement the ozone NAAQS. After the effective date of designation, areas designated as attainment/unclassifiable are required to maintain and prevent significant deterioration of their good air quality. Areas designated as nonattainment are required to prepare a plan, and submit it to EPA for approval to reduce the 8-hour average concentration of ozone in the area to a level at or below the level of the NAAQS. Due to the uncertainty created by the litigation regarding how the 8-hour ozone standard may be implemented, EPA will issue guidance on implementing the 8-hour ozone NAAQS at a future date.

Section 107 of the CAA requires all areas to be designated nonattainment if they do not meet the standard or contribute to ambient air quality in a nearby area that does not meet the standard. When an air monitor shows that air quality in an area is in violation of the ozone NAAQS, EPA's policy is to designate an area around the monitor that includes the nearby area sources that may be contributing to the violation as nonattainment. For ozone, this area may be large. EPA takes this approach because of the way ozone is formed and transported into surrounding areas. It takes time and sunlight to make ozone, and the winds move the air during the time between the emission of precursors and the subsequent formation of ozone. Our goal is to protect public health and welfare by defining a nonattainment area that encompasses the area where air quality is worse than the NAAQS, and the area where the sources of ozone precursors

are located. EPA also believes that designating large areas facilitates a coordinated response in developing plans to reduce emissions. Therefore, EPA's Boundary Guidance document encourages states and Tribes to base attainment and nonattainment boundaries on Metropolitan Statistical Areas (MSAs) or Consolidated Metropolitan Statistical Areas (CMSAs)⁴. These are large, county-based areas defined by the Office of Management and Budget based on information supplied by the U.S. Department of Commerce, Bureau of the Census. Tribal lands encompassed within these areas are considered to be part of the C/MSA. In the past, areas within C/MSAs have generally experienced higher levels of ozone precursor emissions and ozone concentrations than areas outside of C/MSAs. Therefore, EPA recommends that the entire area within the C/MSA, as well as nearby areas contributing to the nonattainment problem, i.e. the airshed, be designated as nonattainment to best protect public health and ensure that all the sources of precursor emissions will be controlled to emission levels that protect the NAAQS.

The EPA's approach recognizes the pervasiveness of ozone by looking at cross-boundary and multi-jurisdictional areas to control ozone precursors. The EPA believes that, in most cases, Indian country within C/MSAs should have the same designation as the surrounding area. However, based on the factors outlined in question 4, below (and in question 5 of the March 28 Boundary Guidance document), there may be situations where a different designation is appropriate.

3. How does the designation process affect Tribes?

A State recommendation for a designation of an area that surrounds Indian country does not dictate the designation for Indian country. However, the conditions that support the State's designation recommendation, such as air quality data and the location of sources, may indicate the likelihood that similar conditions exist in Indian country.

Designating an area under the CAA is accomplished by EPA through a formal rulemaking process. The EPA will follow the process outlined in Section 107(d) and the March Boundary Guidance. These are the general steps:

1. EPA will send individualized letters to the Tribes with a request that any interested Tribe make a designation recommendation for Indian country areas accompanied by supporting documentation to the EPA Regional office by September 30, 2000.⁵ Tribes are not required to recommend designations. (Tribes not making a designation recommendation, please skip to #4).

⁴ Henceforth in this Guidance, the term C/MSA will refer to both CMSAs and MSAs.

⁵ Documentation described in the March Boundary Guidance, page 7.

2. EPA will consult with each Tribe (regardless of whether or not a Tribe has received an eligibility determination to implement Section 107 of the CAA) throughout the designation process, and EPA will facilitate discussions among States and Tribes when several jurisdictions are involved in an area designation. Information about designation recommendations by States (including lands adjacent to Indian country) will be made available on an EPA web site, www.epa.gov/ttn/rto/area.

3. EPA intends to review and respond to a Tribe's designation recommendations by late fall, 2000. After consulting with each affected Tribe, EPA may make modifications it believes are appropriate to the recommendation. Whenever EPA disagrees with any designation recommendation, EPA is required under section 107 to notify the Tribe (or State) of any modifications it intends to make to the recommended designation at least 120 days prior to promulgating the designation.

4. In cases where Tribes do not make designation recommendations, then EPA, in consultation with the Tribes, will promulgate the designation it determines is appropriate. It is agency policy that EPA ". . . in keeping with the Federal trust responsibility, will assure that tribal concerns and interests are considered whenever EPA's actions and/or decisions may affect reservation environments." (EPA 1984 Indian Policy).

5. EPA will make final decisions on designations. These decisions will be published in the Federal Register, along with a date by which these decisions will become effective.⁶ Historically, the effective date is usually 30 to 60 days after publication, but it may be later. Given this process, designations would not become effective prior to early 2001 at the earliest, nor would the requirements that are a consequence of the designation.

4. What factors should a Tribe consider when recommending a designation?

The EPA has established the following criteria (based on section 107, and described in the March Boundary Guidance) for designating areas as nonattainment for the 8-hour ozone NAAQS. Areas that meet these criteria should be designated as nonattainment.

- Any area with an ozone monitor that measures a violation of the NAAQS
- Any area located within a Metropolitan Statistical Area (MSA) or Consolidated Metropolitan Statistical Area (C/MSA) where a violation of the NAAQS has been measured. However, see the list of 11 mitigating factors below.

⁶In the process of determining when to finalize the proposed designations and make them effective, EPA will carefully consider the time needed to prepare for any applicable requirements, as well as the status of ongoing litigation and administrative proceedings.

- Any area with sources of ozone precursors that contribute to ambient air quality in a nearby nonattainment area (an area that does not meet the NAAQS). However, see the list of 11 mitigating factors below.

- Any area located within an area previously designated as nonattainment for the 1-hour ozone NAAQS

Considering the above criteria, the following examples generally illustrate the designation that may be appropriate for areas in Indian country that match the situations described:

- Indian country with an air quality monitor showing that the 8-hour ozone NAAQS is not being met should be designated nonattainment.

- Indian country with an air quality monitor showing that the NAAQS is being met generally should be designated attainment. However, it should be designated nonattainment when: (1) a portion of Indian country is located within a C/MSA with a violating monitor⁷, or (2) existing sources of ozone precursors or expected growth⁸ contribute to air quality in a nearby ozone nonattainment area, or (3) air quality modeling shows that the NAAQS is being violated in Indian country.

- Indian country without a monitor, but located within a C/MSA with a violating monitor, should generally be designated nonattainment based on presumptions that: (1) 8-hour ozone concentrations within the MSA violate the NAAQS, and/or (2) existing sources or expected growth contribute to the bad air quality in the C/MSA.

- Indian country without a monitor, that is located nearby or adjacent to a C/MSA with a violating monitor, will generally be designated unclassifiable. However, it should be designated nonattainment when: (1) existing sources or expected growth contribute to air quality in the nonattainment area, or (2) air quality modeling shows that the NAAQS is being violated in Indian country.

⁷ There are often several air quality monitors within a C/MSA, some measuring ozone concentrations above the standard and some measuring concentrations below the standard. It is EPA's policy to use data from the monitor measuring the highest ozone concentrations as the basis for designating the whole area.

⁸ This term refers to potential new stationary and mobile sources of air pollution that, based on factors such as population trends, and commercial, industrial, transportation, and economic forecasting, may reasonably be expected to occur in an area.

In addition to the criteria listed above, EPA will consider the following 11 factors to determine whether areas located within a nonattainment C/MSA (including those in Indian country) should be excluded from the nonattainment designation, and/or whether areas located nearby or adjacent to a nonattainment C/MSA should be included in the nonattainment designation. Tribes that wish to justify designations other than those suggested in the examples above should explain how each of the following factors affect specific designations in Indian country and how the resulting recommendation is consistent with §107(d)(1) of the CAA.

- Emissions and air quality in adjacent areas (including adjacent C/MSAs)
- Population density and degree of urbanization including commercial development in Indian country (e.g., shows a significant difference from surrounding areas)
- Monitoring data representing ozone concentrations in local areas and larger areas (i.e., urban or regional scale)
- Location of emission sources (emission sources and nearby receptors should generally be included in the same nonattainment area)
- Traffic and commuting patterns
- Expected growth (including extent, pattern and rate of growth)
- Meteorology (whether/transport patterns)
- Geography/topography (e.g., mountain ranges or other air basin boundaries)
- Jurisdictional boundaries (e.g., counties, air districts, existing 1-hour nonattainment areas, reservations, etc.)
- Level of control of emission sources
- Regional emission reductions impacts (e.g., NO_x SIP call or other enforceable regional strategies)

5. How does ozone transport apply?

Local ozone concentrations may be affected by long-range transport of ozone and its precursors, and in addition, by emissions from sources in nearby areas that contribute to nonattainment. Ozone is a widespread problem in some areas. Tribes should evaluate the impact of long-range transport when air quality monitors on lands that are not adjacent to a C/MSA show that the 8-hour ozone standard is being violated. The evaluation should include a review of

the amount of VOC and NO_x emissions from sources in Indian country, emissions from sources in up-wind areas, the meteorology of the area, and the times when peak ozone concentrations occur, among other things.

Regional strategies are needed to address emissions from sources that contribute to the long-range transport component of ozone nonattainment. Tribes are encouraged to participate in regional planning organizations that will address these long-range transport issues. Emissions for sources in Indian country in areas that are designated nonattainment may be addressed in Federal or Tribal implementation plans (FIPs or TIPs), as discussed below.

6. What are the consequences of a given designation once effective⁸?

Since Tribes are not required by the CAA or TAR to develop implementation plans, the explanations that follow should be understood in that context.

Nonattainment: In a nonattainment area the goal is to implement a strategy that will meet the standards by reducing specific pollutants below the levels of the NAAQS. A FIP or TIP should generally contain: (a) an emissions inventory to identify the sources of air pollution, their location, and the types of pollutants emitted; (b) enforceable emission limits that will require application of at least Reasonably Available Control Measures or Reasonably Available Control Technology (RACM or RACT); (c) evidence that the emission limits will reduce emissions enough to prevent NAAQS violations in Indian country and in other jurisdictions (i.e., an attainment demonstration); and (d) a new source review preconstruction permit program to ensure that new and modified sources of pollution do not impede progress toward cleaner air.

Currently, there are no EPA regulations setting forth general requirements for a New Source Review (NSR) permitting program applicable to any new or modified major stationary sources located either on State lands or in Indian country in areas that would be designated nonattainment for the 8-hour standard. However, the statutory requirements for nonattainment NSR in section 173 could be adapted in order to regulate emissions from new major sources and major modifications to existing sources. In the future, when EPA establishes Federal nonattainment NSR regulations, Tribes may choose to adopt EPA's regulations. When EPA determines that it is necessary or appropriate (e.g., when a Tribe lacks an approved TIP with a preconstruction permitting program), EPA may regulate the construction of new or modified major stationary sources in Indian country by developing a FIP. Tribes should contact the appropriate EPA Regional office if they are interested in additional information on the process for regulating emissions from major stationary sources that plan to construct or make

⁸ See draft of "Explanation of Tribal Authority to Develop a Tribal Implementation Plan" for more details on developing a Tribal program under the CAA on web site: <http://www.epa.gov/aor/tribal/airprogs/>.

modifications in Indian country, especially if such construction will occur in an area that becomes designated as either attainment/unclassifiable or nonattainment for the 8-hour ozone standard.

Activities in areas that are designated nonattainment for the 8-hour ozone standard that are conducted or supported by Federal agencies must "conform" to the purpose of an applicable implementation plan, as required by section 176(c) of the CAA. The EPA's conformity rules apply to Federal activities within nonattainment areas and areas that have moved from nonattainment to maintaining the standards, i.e., areas that are redesignated as attainment. A Federal agency must demonstrate, prior to initiating a project, that its action conforms to all applicable requirements in an implementation plan and will not cause or contribute to NAAQS violations. Transportation conformity rules govern Federal/State highway and transit-related activities, and all other types of Federal activities are governed by general conformity rules. The transportation conformity rule requires transportation agencies to estimate the total motor vehicle emissions that would result from the area's transportation system if the proposed improvements were built. These emissions must be within levels that the applicable implementation plan predicts are consistent with attainment. It should be noted that under the Federal Lands Highways Program, 23 U.S.C §§202(d), 204, as amended by the Transportation Equity Act for the 21st Century (TEA-21) authorization to promulgate and implement regulations regarding planning and construction, as well as transit-related improvement projects on Indian reservation roads are entrusted to the Secretary of the Interior through the assistance of the Bureau of Indian Affairs.

The general conformity rules provide Federal agencies with the following options for demonstrating conformity in ozone nonattainment areas: (1) obtaining emission reductions that offset the emissions from the new project, (2) showing that the project's emissions are already included in, or accommodated by, the emissions inventory for the area, or (3) obtaining an agreement to include the project's emissions in the applicable implementation plan.

Attainment/unclassifiable: In an attainment or unclassifiable area the goal is to maintain air quality that is cleaner than the NAAQS. A Tribal or Federal program in such areas will generally contain enforceable emission limits for existing emission sources, a program to limit the impacts of emissions from new and modified major stationary sources, and provisions to prevent significant contribution by sources located in Indian country to NAAQS violations in other jurisdictions.

Major sources, located in Indian country that is designated attainment/unclassifiable for any pollutant, such as the 8-hour ozone standard, would be subject to the Federal program for the Prevention of Significant Deterioration (PSD) upon the date that designations under the 8-hour standard become effective.⁹

⁹See Title 40 Code of Federal Regulations Part 52.21 (40 CFR 52.21).