UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

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OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard

FROM: Stephen D. Page
Director

TO: Regional Air Division Directors, Regions 1 – 10

The purpose of this memorandum is to provide information on the schedule and process for designating areas for the 2010 primary sulfur dioxide (SO_2) national ambient air quality standard (NAAQS). In addition, it identifies factors for determining the boundaries for SO_2 areas designated nonattainment, attainment and unclassifiable. We recommend that states and tribes consider and address these factors when identifying boundaries for any updated area designation recommendations they choose to submit for the 2010 SO_2 NAAQS. Please share this information with the state and tribal agencies in your region. As explained below, this guidance updates and replaces the previous designation guidance for the 2010 SO_2 NAAQS, which was issued on March 24, 2011. In assessing the appropriate designation for a given area, the EPA will consider the state's previous designation recommendations and any updated recommendations, as well as any additional relevant information that we receive.

On June 2, 2010, then-Administrator Jackson signed the revised primary SO_2 NAAQS (75 FR 35520, June 22, 2010) after review of the existing primary SO_2 standards issued in 1971. The EPA established the revised primary SO_2 standard at 75 parts per billion (ppb) which is met at a monitoring site when the 3-year average of the 99th percentile of daily maximum 1-hour concentrations does not exceed 75 ppb. The Administrator determined that this is the level necessary to provide protection of public health with an adequate margin of safety, especially for children, the elderly and those with asthma. These groups are particularly susceptible to the health effects associated with breathing SO_2.

On August 5, 2013, the EPA published a notice announcing designations of 29 areas in 16 states as nonattainment for the 2010 SO_2 standard, based on certified ambient air quality monitoring data for the years 2009 – 2011 that showed these areas were violating the standard (78 FR 47191). However, at that time the EPA was not yet prepared to issue designations for the remaining areas. With stakeholder input, the EPA developed and proposed the SO_2 Data Requirements Rule (DRR) that would require states to gather and submit to the EPA additional information characterizing SO_2 air quality in areas with larger sources of SO_2 emissions. (79 FR 27445). The EPA intends to use this information to inform the designations of these areas. In the SO_2 DRR, as proposed, air agencies implementing the 1-hour SO_2 standard would have the choice to use either monitoring or modeling to characterize SO_2 air quality in

the vicinity of priority SO_2 sources, and submit the modeling and/or monitoring results to the EPA on the schedule specified in the rule.

Following the initial August 2013 designations, three lawsuits were filed against the EPA in different U.S. District Courts, alleging that the agency had failed to perform a nondiscretionary duty under the Clean Air Act (CAA) by not designating all portions of the country by the June 2013 deadline. In an effort intended to resolve the litigation in one of those cases, plaintiffs Sierra Club and the Natural Resources Defense Council and the EPA filed with the U.S. District Court for the Northern District of California a proposed consent decree that specified a schedule for the EPA to complete the remaining SO_2 designations for the rest of country in three additional rounds. On March 2, 2015, the Court entered the consent decree and issued an enforceable order for the EPA to complete the area designations according to the consent decree schedule.

General Approach and Schedule

Pursuant to the court order, the EPA must complete the remaining designations on a schedule that contains three specific deadlines. By no later than July 2, 2016 (16 months from the court's order), the EPA must designate two groups of areas: (1) areas that have newly monitored violations of the 2010 SO_2 standard and (2) areas that contain any stationary source that according to the EPA's Air Markets Database either emitted more than 16,000 tons of SO_2 in 2012 or emitted more than 2,600 tons of SO_2 and had an annual average emission rate of at least 0.45 lbs SO_2/mmBtu[1] in 2012 and that has not been announced (as of March 2, 2015) for retirement.[2] The last two deadlines for completing remaining designations are December 31, 2017, and December 31, 2020. The designations completed by these later deadlines are expected to be informed by information provided by states pursuant to the anticipated SO_2 DRR.[3] However, even if the SO_2 DRR is not finalized, the EPA must still complete designations pursuant to these deadlines.

In the time since states submitted their original designations recommendations in 2011, they may have obtained additional monitoring and/or modeling information that may be relevant for future designations. The CAA section 107(d) does not require states to submit updated recommendations. However, if states would like to submit updated designation recommendations for the EPA to consider in the next rounds of designations, we will consider such information.

For the round of designations to be completed by July 2, 2016, we request that states provide updated recommendations and supporting information to the EPA by September 18, 2015, to assure that the information can be fully considered by the EPA. If the EPA intends to modify any state's designation recommendation (original or updated), we will notify the state no later than 120 days prior to promulgating the final designations (e.g., no later than March 2, 2016, for designations due to be promulgated on or before July 2, 2016). States will then have an opportunity to comment on the EPA's intended modifications and provide additional information for the EPA to consider. While the language

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[1] The abbreviation "lbs/mmBtu" means pounds per one million British thermal units.

[2] A stationary source with a coal-fired unit that as of January 1, 2010, had a capacity of over 5 megawatts that otherwise meets the emissions criteria, is excluded from the July 2, 2016, deadline if it had announced by March 2, 2015, that it will cease burning coal at that unit through a company public announcement, public utilities commission filing, consent decree, public legal settlement, final state or federal permit filing or other similar means of communications.

[3] As a legal matter, the deadlines in the court order apply even if the EPA does not finalize the SO_2 DRR. However, the general approach described in this memorandum reflects our expectation that the EPA will in fact finalize the SO_2 DRR.

in section 107 specifically addresses states, we intend to follow the same process for tribes, pursuant to section 301(d) of the CAA and the Tribal Authority Rule (40 CFR Part 49). Therefore, we intend to designate tribal areas, in consultation with the tribes, on the same schedule as state designations. If a state or tribe does not submit an updated designation recommendation, the EPA will promulgate the designations that it deems appropriate after considering the originally submitted recommendation and any relevant additional information available to the EPA.

The states and tribes that choose to submit updated recommendations should identify areas as attainment, nonattainment or unclassifiable on the basis of currently available information. The EPA intends to send "120-day letters" to selected tribes by January 22, 2016 (and not later than March 2, 2016) notifying them of the EPA's intended designation decisions. If a state or tribe has additional information that it wants the EPA to consider in response to a 120-day letter, we request that such information be submitted by April 8, 2016. This will help ensure that the EPA can fully consider any such information prior to issuing final designations. Also, although not required by statute, in order to consider public input in the designation process, we plan to provide a 30-day public comment period immediately following issuance of the EPA's 120-day letters responding to the recommendations made by states and tribes. Attachment 1 is the anticipated schedule for the round of designations that must be completed by July 2, 2016.

We recognize that the timeline for designations by July 2, 2016, does not provide for establishment and use of data from new ambient monitors. Therefore, we anticipate that in many areas the most reliable information for informing these designations will be based on source modeling. The EPA has issued guidance on the use of source modeling for this purpose in the SO_2 NAAQS Designations Modeling Technical Assistance Document (Modeling TAD).[4]

Following this next round, the EPA is also required by the court order to complete designations for remaining areas in up to two additional rounds. According to the court order, the EPA must sign for publication in the *Federal Register* no later than December 31, 2017, designations for remaining undesignated areas in which, by January 1, 2017, states have not installed and begun operating an appropriate SO_2 monitoring network meeting the EPA specifications referenced in the EPA's anticipated SO_2 DRR. We expect this round to cover most remaining undesignated areas in the nation – those for which states choose to follow the modeling approach under the anticipated SO_2 DRR to address impacts from larger SO_2 sources, and those which do not contain SO_2 sources that would require further characterization under the anticipated SO_2 DRR. Finally, by no later than December 31, 2020, the EPA must issue designations for all remaining undesignated areas. This final round would cover areas for which states choose to follow and timely implement the monitoring approach under the anticipated SO_2 DRR. We will provide more information regarding the approach and schedule for the remaining rounds of designations in the future.

When considering boundaries for updated area designation recommendations, the EPA recommends that states and tribes analyze and consider the following five factors: ambient air quality data or dispersion modeling, emissions and emissions-related data, meteorology, geography/topography and jurisdictional boundaries. (*See* Attachment 2). In addition, the EPA has provided two TADs to assist states and tribes with assessing modeling and monitoring data when determining if an area is meeting or not meeting the

[4] The Modeling TAD is available on the EPA's website at *http://www.epa.gov/airquality/sulfurdioxide/pdfs/SO2ModelingTAD.pdf.*

1-hour SO_2 standard. These documents can be found on the EPA's website at *http://epa.gov/airquality/sulfurdioxide/implement.html*.

Identifying an Area that is in Violation of the SO_2 NAAQS

Section 107(d)(1) of the CAA defines an area as "nonattainment" if it is violating the NAAQS or if it is contributing to a violation in a nearby area. Thus, the first step in making designation decisions is to identify areas for which monitoring data or appropriate modeling information indicate a violation of the NAAQS.

Monitor-based Violations. In assessing whether monitoring data indicate a violation, the EPA intends to use the most recent three consecutive years of quality-assured, certified ambient air quality data in the EPA Air Quality System (AQS)[5] using data from Federal Reference Method and Federal Equivalent Method monitors that are sited and operated in accordance with 40 CFR Parts 50 and 58. Procedures for using monitored air quality data to determine whether a violation has occurred are given in 40 CFR Part 50 Appendix T, as revised in conjunction with the 2010 SO_2 NAAQS. We expect that in providing any updated recommendations to the EPA for the areas to be designated by July 2, 2016, states and tribes would review available SO_2 monitoring data from 2012–2014. Prior to the EPA issuing letters to states and tribes concerning any intended modifications to state recommendations, certified SO_2 monitoring data from 2015 may become available. If this is the case, the EPA intends to also consider certified 2015 SO_2 ambient air quality monitoring data in formulating any intended modifications to state and tribal recommendations.

Ambient air quality monitoring data affected by exceptional events may be excluded from use in identifying a violation if they meet the criteria for exclusion, as specified in the final rule "Treatment of Data Influenced by Exceptional Events" (72 FR 13560; March 22, 2007) codified in 40 CFR parts 50 and 51. In section VII.B of the SO_2 NAAQS final rule preamble, we discussed schedules for states and tribes to flag data influenced by exceptional events and submit related documentation specifically for SO_2 data used in the initial designations process. As previously noted, the EPA did not designate all areas of the country in August 2013 and, consistent with the court order, intends to complete designations in multiple rounds beginning on or about July 2, 2016, through on or about December 31, 2020. This extended designations schedule introduces additional years of monitoring data in which SO_2 concentrations may be influenced by exceptional events. Because the previously promulgated exceptional events data flagging and documentation submittal dates associated with SO_2 data that could be considered in the initial area designations process have already passed, the EPA is recommending new submittal dates in this guidance for these future data. State and tribal air agencies who wish the EPA to be able to fully consider excluding exceptional event-affected SO_2 data for purposes of designations are asked to flag exceptional event data and submit an initial description in the EPA's AQS, and also submit the associated exceptional event demonstrations no later than 5 months prior to the date of final designation decisions. Additionally, air agencies are asked to notify their reviewing EPA Regional Office as soon as possible about their intent to prepare and submit an exceptional event documentation.

Model-based Violations. States and tribes may also use air quality modeling results to indicate a violation of the SO_2 NAAQS. The EPA believes that dispersion modeling is an appropriate tool to

[5] SO_2 air quality data is available from the EPA's website at *www.epa.gov/ttn/airs/airsaqs/*.

indicate a violation of the SO_2 NAAQS, and it has used dispersion modeling in the past for SO_2 designations. The previously mentioned December 2013 Modeling TAD provides further recommendations on developing an appropriate refined dispersion modeling analysis to support designation recommendations. Such modeling could include using the AERMOD dispersion model or other appropriate dispersion model. The Modeling TAD updates the March 24, 2011, Modeling Guidance for SO_2 NAAQS Designations in four respects, all to ensure that a modeling approach better simulates a monitoring approach. Specifically, the Modeling TAD recommends:

- using actual emissions as an input for assessing violations to provide results that reflect current actual air quality (i.e., modeling that simulates a monitor);
- using 3 years of modeling results to calculate a simulated design value consistent with the 3-year monitoring period required to develop a design value for comparison to the NAAQS;
- placing receptors only in locations where a monitor could be placed; and
- using actual stack heights rather than following the Good Engineering Practice stack height policy when using actual emissions.

Identifying Attainment Areas

The EPA may designate an area as attainment if it is clear that it meets the SO_2 NAAQS and does not contribute to a violation in a nearby area. An area may be demonstrated in attainment if the most recent 3 years of ambient air quality monitoring data indicate no violations and if the monitoring network in the area is sufficient to be compared to the NAAQS per the SO_2 NAAQS Designations Monitoring TAD.[6] An area may also be demonstrated in attainment if appropriate modeling analysis indicates no violations of the 2010 SO_2 NAAQS. (Using allowable emissions in modeling would be an appropriate approach to support an attainment determination.) In either case, it will also be necessary to show that sources in the area are not contributing to a violation in a nearby area. In the absence of information clearly demonstrating a designation of "attainment" or "nonattainment," the EPA intends to designate the area as "unclassifiable"[7] when it takes action pursuant to the court order.

Determining Nonattainment Area Boundaries

Ambient SO_2 is a pollutant that arises from direct emissions, and SO_2 concentrations are generally expected to be highest relatively close to the source(s) and lower at farther distances due to dispersion. Thus, SO_2 concentration patterns resemble those of other directly emitted pollutants like lead and differ from those of photochemically-formed (secondary) pollutants such as ozone. Accordingly, as explained in the 2011 guidance, we expect to continue to consider county boundaries as the analytical starting point for determining SO_2 nonattainment areas.

We believe it is appropriate to evaluate each potential nonattainment area on a case-by-case basis to determine an appropriate boundary that satisfies the statutory conditions. A nonattainment area should contain the area violating the NAAQS (e.g., the area around a violating monitor or encompassing

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[6] The Monitoring TAD is available on the EPA's website at *http://www.epa.gov/airquality/sulfurdioxide/pdfs/SO2MonitoringTAD.pdf.*

[7] While states have and may continue to submit designations recommendations identifying areas as "attainment," the EPA expects to continue its traditional approach, where appropriate, of using a designation category of "unclassifiable/attainment" for areas that the EPA determines meet the NAAQS. The EPA expects to reserve the category "unclassifiable" for areas where the EPA cannot determine based on available information whether the area is meeting or not meeting the NAAQS or where the EPA cannot determine whether the area contributes to a violation in a nearby area.

modeled violations), as well as any nearby areas (e.g., counties or portions thereof) that contain emissions sources contributing to the monitored or modeled violations. (*See* CAA section 107(d)(1)(A)(i)). We recommend that states and tribes base their updated boundary recommendations on an evaluation of five factors: 1) air quality data or dispersion modeling results; 2) emissions-related data; 3) meteorology; 4) geography and topography; and 5) jurisdictional boundaries, as well as other available data. These factors are discussed in more detail in Attachment 2. Dispersion modeling, as discussed in the Modeling TAD, can be a helpful tool in this evaluation because it allows the model user to simultaneously assess multiple factors. States and tribes may identify and evaluate other relevant factors or circumstances specific to a particular area.

While the EPA generally believes that in the absence of other relevant information it is appropriate to use county boundaries to define nonattainment areas, we recognize that the five-factor analysis and other information may support a nonattainment area consisting of only a portion of a county. For example, a topographical feature may divide a county into two separate air basins, or contributing sources may be clustered in only a portion of a county.[8] For defining partial county boundaries, the EPA recommends the use of well-defined jurisdictional lines such as township borders or other well-established geopolitical boundaries, and immovable landmarks such as major roadways or other permanent and readily identifiable physical features.

Determining Attainment Area Boundaries

An attainment area cannot contain any area that violates the NAAQS or contributes to a violation of the NAAQS in a nearby area. (*See* CAA section 107(d)(1)(A)(i)). County boundaries may be appropriate for defining attainment areas in the absence of any other relevant information that would help define a more specific boundary around the SO_2 source(s) in question. To define more specific boundaries, we recommend an evaluation of the five factors mentioned previously, and, in particular, the use of dispersion modeling, as discussed in the Modeling TAD, to simultaneously assess multiple factors.

While we believe this memorandum provides helpful guidance on how boundaries would be determined for SO_2 designations, the guidance contained herein is not binding on states, tribes the public or the EPA. The final basis for determining area boundaries will be addressed in the EPA's regulatory action to designate areas under the 2010 SO_2 NAAQS. When the EPA promulgates designations, those determinations will be final and binding on states, tribes, the public and the EPA.

Attachment 1 is a timeline of key dates in the round of designations for the revised 2010 SO_2 NAAQS that must be completed by July 2, 2016. Attachment 2 identifies the primary five factors that the EPA plans to consider in evaluating and making decisions on appropriate nonattainment and attainment area boundaries. The EPA recommends that states and tribes also address these factors and follow the Monitoring and Modeling TADs if they choose to submit updated designation recommendations.

[8] In the case of a contributing SO_2 source located very near a county boundary or state border, it may be appropriate for the corresponding nonattainment area to include portions of multiple counties or multiple states.

Staff members at the EPA's Office of Air Quality Planning and Standards are available for assistance and consultation throughout the designations process. General questions on this guidance may be directed to Andy Chang (919) 541-2416. Modeling-related questions may be directed to James Thurman (919) 541-2703. Monitoring-related questions may be directed to Nealson Watkins (919) 541-5522.

Attachments (2)

ATTACHMENT 1

TIMELINE FOR 2010 PRIMARY SO_2 NAAQS DESIGNATION PROCESS – ROUND 2 – AREAS ASSOCIATED WITH JULY 2, 2016, COURT-ORDERED DEADLINE[a]	
Milestone	**Date[b]**
Court Order	March 2, 2015
States flag relevant exceptional event-influenced SO_2 monitoring data from 2012 and 2013; provide detailed documentation to support all claims	No later than July 1, 2015
States may submit updated recommendations and supporting information for area designations to the EPA	No later than September 18, 2015
States flag relevant exceptional event-influenced SO_2 monitoring data from 2014 and 2015; provide detailed documentation to support all claims	No later than February 2, 2016
The EPA notifies states concerning any intended modifications to their recommendations (120-day letters)	January 22, 2016 (no later than 120 days prior to final designations)
The EPA publishes public notice of state recommendations and the EPA's intended modifications and initiates 30-day public comment period	o/a February 3, 2016
End of 30-day public comment period	o/a March 4, 2016
States and tribes submit additional information, if desired, to demonstrate why an EPA modification is inappropriate	o/a April 8, 2016
The EPA signs notice promulgating final SO_2 area designations (no later than 16 months from court order)	No later than July 2, 2016

[a] Designations for Round 3 must be promulgated by December 31, 2017. Designations for Round 4 must be promulgated by December 31, 2020.

[b] o/a = on or about

ATTACHMENT 2

Determining Area Designations and Appropriate Area Boundaries for the 2010 SO_2 NAAQS

Designation Categories		
Nonattainment	Attainment[1]	Unclassifiable
An area that the EPA has determined violates the 2010 SO_2 NAAQS, based on the most recent three years of ambient air quality monitoring data or an appropriate modeling analysis, or that the EPA has determined contributes to a violation in a nearby area.	An area that the EPA has determined meets the 2010 SO_2 NAAQS and does not contribute to a violation of the NAAQS in a nearby area based on either: a) the most recent 3 years of ambient air quality monitoring data from a monitoring network in area that is sufficient to be compared to the NAAQS per EPA interpretations in the Monitoring TAD, or b) an appropriate modeling analysis.	An area where the EPA cannot determine based on available information whether the area is or is not meeting the 2010 SO_2 NAAQS and whether the area contributes to a violation in a nearby area.

Nonattainment Area Boundaries. The EPA intends to use the county as the analytical starting point for assessing the appropriate geographic boundaries of a SO_2 nonattainment area. The five factors listed below comprise a framework for area-specific analyses to support final boundary determinations. The information addressing these factors could include appropriate air quality dispersion modeling as recommended by the SO_2 Designations Modeling TAD[2] or, where available, ambient air quality monitoring data as recommended by the SO_2 Designations Monitoring TAD.[3] For modeled violations, the portion of the modeling domain encompassing the modeled violations is an appropriate reference point for determining a nonattainment area boundary.

Attainment Area Boundaries. Areas designated as attainment should be supported by information clearly demonstrating that there are no violations of the SO_2 NAAQS inside the area boundary, and that the included portions do not contain emission sources that may contribute to monitored or modeled violations outside the area boundary. County boundaries may be appropriate for defining attainment areas in the absence of any other relevant information that would help define

[1] While states have and may continue to submit designations recommendations identifying areas as "attainment," the EPA expects to continue its traditional approach, where appropriate, of using a designation category of "unclassifiable/attainment" for areas that the EPA determines meet the NAAQS. The EPA expects to reserve the category "unclassifiable" for areas where the EPA cannot determine based on available information whether the area is meeting or not meeting the NAAQS or where the EPA cannot determine whether the area contributes to a violation in a nearby area.

[2] The Modeling TAD is available on the EPA's website at *http://www.epa.gov/airquality/sulfurdioxide/pdfs/SO2ModelingTAD.pdf.*

[3] The Monitoring TAD is available on the EPA's website at *http://www.epa.gov/airquality/sulfurdioxide/pdfs/SO2MonitoringTAD.pdf.*

a more specific boundary around the SO_2 source(s) in question. As recommended in the Modeling TAD, appropriate modeling for establishing attainment area boundaries would include using the AERMOD dispersion model, with actual or allowable source emissions. Where appropriate modeling is conducted, the portion of the modeling domain demonstrated to be free of violations, and free of sources that may contribute to any nearby violations is an appropriate reference point for determining the boundary of an attainment area.

Developing Supporting Information (Factor Analysis). As a framework for area-specific analyses to support final boundary determinations, the EPA intends to evaluate the five factors listed below, as well as other relevant available information. The purpose of evaluating these factors is to determine the appropriate boundaries encompassing the area meeting the CAA's definitions. The guidance in the Modeling TAD discusses how modeling could be used to address several of these factors simultaneously. When considered as a whole, results may support boundaries that are either larger or smaller than the analytical starting point.

1. **Ambient air quality data or dispersion modeling results**. We intend to review SO_2 ambient air quality monitoring data, including the design value calculated for each monitor in the area, for the most recent 3-year period. Areas where monitoring data indicate a violation of the 1-hour, 75 ppb primary SO_2 standard will be designated as "nonattainment." Source-oriented modeling may also be used to assess air quality in a particular location. The Modeling TAD provides further recommendations on using refined dispersion modeling for this type of air quality assessment. An area may be demonstrated to meet the SO_2 NAAQS if appropriate modeling analysis based on either actual or allowable emissions from relevant sources indicates no violations of the SO_2 NAAQS. As explained in the Monitoring TAD, data from a properly sited monitoring network may also be sufficient to establish that an area meets the SO_2 NAAQS. In either case, to be designated attainment it will be necessary to show that sources in the area are not contributing to a violation in a nearby area.

2. **Emissions-related data** (location of sources and potential contribution to ambient SO_2 concentrations). We intend to examine actual emissions of SO_2 from sources located in and around the violating area. Significant emissions levels in a nearby area indicate potential for the area to contribute to observed or modeled violations of the NAAQS. We intend to review data from the latest National Emissions Inventory or other relevant sources of the data, such as state inventories or inventories from other federal sources. We would also consider any additional information we receive on federally-enforceable emissions controls that are not reflected in recent inventories but which will require compliance before final designations are issued.

3. **Meteorology** (weather and transport patterns). We intend to evaluate meteorological data to help determine how weather conditions, including wind speed and direction, affect the plume of sources contributing to ambient SO_2 concentrations. This factor also can be assessed in the context of source-oriented dispersion modeling as recommended in the Modeling TAD.

4. **Geography and topography** (mountain ranges or other air basin boundaries). We intend to examine the physical features of the land that might affect the distribution of SO_2 over an

area. Mountains or other physical features may affect the distribution of emissions, and may help define area boundaries.

5. **Jurisdictional boundaries** (e.g., counties, air districts, pre-existing nonattainment areas, reservations, metropolitan planning organizations). For nonattainment areas, once the geographic area associated with the area violating the SO_2 NAAQS and the nearby area contributing to violations are determined, we intend to consider existing jurisdictional boundaries for the purposes of providing a clearly defined legal boundary for carrying out the air quality planning and enforcement functions for the area. If an existing jurisdictional boundary is used to help define the nonattainment area, it should encompass all of the area that has been identified as meeting the nonattainment definition. Where existing jurisdictional boundaries are not adequate to describe the nonattainment area, other clearly defined and permanent landmarks or physical features may be used. In certain cases geographic coordinates may be appropriate, but geopolitical boundaries are preferred. For attainment areas, these same jurisdictional considerations may play a role in determining appropriate boundaries.

The EPA plans to consider these factors, along with any other relevant information, in determining whether to make modifications to the designation and area boundary recommendations made by states and tribes. The factors listed above, while generally comprehensive, are not intended to be exhaustive. States and tribes may submit additional information they believe is relevant for the EPA to consider. Any information provided to support a boundary recommendation for a nonattainment area should show that: 1) violations are not occurring in nearby portions that are excluded from the recommended nonattainment area; and 2) the excluded portions do not contain emission sources that contribute to a monitored or modeled violation. Any information provided to support a boundary recommendation for an attainment area should show that: 1) violations are not occurring in the area; and 2) the included portions do not contain emission sources that may contribute to monitored or modeled violations outside the area boundary. In the absence of information clearly demonstrating that an area and its associated boundary are properly designated "attainment" or "nonattainment," the EPA intends to designate the area as "unclassifiable."