Technical Support Document:

Final Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard

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U.S. Environmental Protection Agency
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Technical Support Document:

Chapter 1
Background and History of the Final Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard

1. Overview

Pursuant to section 107(d) of the Clean Air Act (CAA), the U.S. Environmental Protection Agency (the EPA, we, or us) must designate areas as either "nonattainment," "attainment," or "unclassifiable" for the 2010 1-hour sulfur dioxide (SO_2) primary national ambient air quality standard (NAAQS) (2010 SO_2 NAAQS). The CAA defines a nonattainment area as an area that does not meet the NAAQS or that contributes to a nearby area that does not meet the NAAQS. An attainment area is defined by the CAA as any area that meets the NAAQS and does not contribute to a nearby area that does not meet the NAAQS. Unclassifiable areas are defined by the CAA as those that cannot be classified on the basis of available information as meeting or not meeting the NAAQS.

In this action, the EPA has defined and applied three terms as designations labels for areas, as follows. First, a nonattainment area is defined in this action as an area that the EPA has determined violates the 2010 SO_2 NAAQS or contributes to a violation in a nearby area, based on the most recent 3 years of air quality monitoring data, appropriate dispersion modeling analysis, and any other relevant information.

Second, in this action, an attainment/unclassifiable area is defined by the EPA as an area that either: (1) was not required to be characterized under 40 CFR 51.1203(c) or (d) for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS; or (2) was required to be characterized under 40 CFR 51.1203(c) or (d) for which the EPA has determined the available information indicates the area meets the NAAQS and does not indicate the area contributes to ambient air quality in a nearby area that does not meet the NAAQS.[1]

Third, in this action, an unclassifiable area is defined by the EPA as an area for which the available information does not allow EPA to determine whether the area meets the definition of a nonattainment area or the definition of an attainment/unclassifiable area.

[1] The term "designated attainment area" is not used in this document because the EPA uses that term only to refer to a previous nonattainment area that has been redesignated to attainment as a result of the EPA's approval of a state-submitted maintenance plan.

This technical support document (TSD) addresses the final designations for almost all of the remaining undesignated areas in the U.S. for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[2] The EPA is under a December 31, 2017, deadline to designate the areas addressed in this TSD as required by the U.S. District Court for the Northern District of California.[3] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of the Round 3 designations, the only remaining undesignated areas will be those where a state has installed and begun timely operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 Data Requirements Rule (DRR) (80 FR 51052), codified at 40 CF part 51, subpart BB. The EPA is required to designate those remaining undesignated areas by December 31, 2020.

This Chapter 1 of the TSD includes background information and definitions that apply to all the areas in our final designations. Designation-related information for 14 states and territories, for which there is limited information to inform the designations, are addressed together in Chapter 2, in the interest of conciseness. Also, Section 16 of Chapter 2 provides information on emission limits and shutdowns for sources on the EPA's SO_2 DRR source list. Section 16 covers all states and territories for which emission limits or shutdowns are a factor, not just the previously mentioned 14 states. The remaining 42 states, Guam, Puerto Rico, Southern Ute[4], and Navajo Nation each have a separate chapter in this TSD that describes the final designations for that particular state, territory, or tribal area.[5]

2. Background and History

Then-Administrator Lisa Jackson signed a final rule revising the primary SO_2 NAAQS on June 2, 2010. The rule was published in the *Federal Register* on June 22, 2010 (75 FR 35520) and became effective on August 23, 2010. Based on the Administrator's review of the air quality criteria for oxides of sulfur (SO_x) and the primary NAAQS for SO_x as measured by SO_2, the EPA revised the primary SO_2 NAAQS to provide requisite protection of public health with an adequate margin of safety. Specifically, the EPA established a new 1-hour SO_2 standard at a level of 75 parts per billion (ppb), which is met at an ambient air quality monitoring site when the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations is less than or equal to 75 ppb, as determined in accordance with Appendix T of 40 CFR part 50. 40 CFR 50.17(a) and (b). The EPA also established provisions to revoke both the existing 24-hour and annual primary SO_2 standards, subject to certain conditions. 40 CFR 50.4(e).

Current scientific evidence links short-term exposures to SO_2, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects including bronchoconstriction and increased

[2] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[3] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).
[4] The chapter for the Southern Ute Indian Tribe was inadvertently left out of the TSD for the intended designations, however, Southern Ute is included in this TSD for the final designations in Chapter 46.
[5] In the state-specific chapters, the term "this TSD" is sometimes used to refer to that particular state-specific chapter rather than the entire TSD.

asthma symptoms. These effects are particularly important for asthmatics at elevated ventilation rates (e.g., while exercising or playing). Studies also show a connection between short-term exposure and increased visits to emergency departments and hospital admissions for respiratory illnesses, particularly in at-risk populations including children, the elderly, and asthmatics. The EPA's NAAQS for SO_2 is designed to protect against exposure to the entire group of SO_x. SO_2 is the component of greatest concern and is used as the indicator for the larger group of gaseous SO_x. Other gaseous SO_x (e.g., SO_3) are found in the atmosphere at concentrations much lower than SO_2.

Emissions that lead to high concentrations of SO_2 generally also lead to the formation of other SO_x. Control measures that reduce SO_2 can generally be expected to reduce people's exposures to all gaseous SO_x. This may also have the important co-benefit of reducing the formation of fine sulfate particles, which pose significant public health threats. SO_x can react with other compounds in the atmosphere to form small particles. These particles penetrate deeply into sensitive parts of the lungs and can cause or worsen respiratory disease, such as emphysema and bronchitis, and can aggravate existing heart disease, leading to increased hospital admissions and premature death. The EPA's NAAQS for particulate matter are designed to provide protection against these health effects.

In the notice of proposed rulemaking for the revised SO_2 NAAQS (74 FR 64810; December 8, 2009), the EPA issued proposed guidance on our approach to implementing the standard, including our approach to initial area designations. The EPA solicited comment on that guidance and, in the notice of final rulemaking (75 FR 35520; June 22, 2010), provided further guidance concerning implementation of the standard and how to identify nonattainment areas and boundaries for the SO_2 NAAQS. Subsequently, on March 24, 2011, the EPA provided additional designations guidance to assist states with making their recommendations for area designations and boundaries. That guidance recommended, among other things, that monitoring data from the most recent 3 consecutive years be used to identify a violation of the SO_2 NAAQS. This is appropriate because the form of the SO_2 NAAQS is calculated as a 3-year average of the 99^{th} percentile of the yearly distribution of 1-hour daily maximum SO_2 concentrations (specifically the most recent 3 consecutive years).

In the March 24, 2011, guidance, the EPA stated that the perimeter of a county containing a violating monitor would be the initial presumptive boundary for nonattainment areas, but also stated that the state, tribe, and/or the EPA could conduct additional area-specific analyses that could justify establishing either a larger or smaller area. The EPA indicated that the following factors should be considered in an analysis of whether to exclude portions of a county and whether to include additional nearby areas outside the county as part of the designated nonattainment area: 1) air quality data; 2) emissions-related data; 3) meteorology; 4) geography/topography; and 5) jurisdictional boundaries, as well as other available data. The EPA indicated that states and tribes may identify and evaluate other relevant factors or circumstances specific to a particular area.

After the EPA promulgates a new or revised NAAQS, the EPA is required to designate all areas of the country as either "nonattainment," "attainment," or "unclassifiable," for that NAAQS pursuant to section 107(d)(1) of the CAA. The process for designating areas following

promulgation of a new or revised NAAQS is contained in section 107(d) of the CAA. The CAA requires the EPA to complete the initial designations process within 2 years of promulgating a new or revised standard. If the Administrator has insufficient information to make these designations by that deadline, the EPA has the authority to extend the deadline for completing designations by up to 1 year. On July 27, 2012, the EPA announced that we had insufficient information to complete the designations for the 1-hour SO_2 standard within 2 years and extended the designations deadline to June 3, 2013 (77 FR 46295; August 3, 2012).

For the 2010 SO_2 NAAQS, states' designation recommendations were due to the EPA by June 3, 2011. Designation recommendations and supporting documentation were submitted by 49 states, the District of Columbia, four territories, and five tribes to the EPA by that date. After receiving these recommendations, and after reviewing and evaluating each recommendation, the EPA provided responses to the states and tribes regarding certain areas on February 7, 2013. The state and tribal letters, including the initial recommendations, the EPA's February 2013 responses to those letters, any modifications, and the subsequent state comment letters, are in the separate docket for that first round of SO_2 designations, at Docket ID NO. EPA-HQ-OAR-2012-0233.

Although not required by section 107(d) of the CAA, the EPA also provided an opportunity for members of the public to comment on the EPA's February 2013 response letters. The EPA completed the first round of SO_2 designations on July 25, 2013, designating 29 areas in 16 states as nonattainment (78 FR 47191; August 5, 2013). The EPA based this first round of final SO_2 designations on monitored SO_2 concentrations from Federal Reference Method and Federal Equivalent Method monitors that are sited and operated in accordance with 40 CFR parts 50 and 58. In the preamble to that action, the EPA stated that in separate future actions, we intended to address designations for all other areas for which the EPA was not yet prepared to issue designations and that were consequently not addressed in that final rule. With input from a diverse group of stakeholders, the EPA developed a comprehensive implementation strategy for the future SO_2 designations actions that focuses resources on identifying and addressing unhealthy levels of SO_2 in areas where people are most likely to be exposed to violations of the standard.

Following the initial August 5, 2013, designations, three lawsuits were filed against the EPA in different U.S. District Courts, alleging the agency had failed to perform a nondiscretionary duty under the CAA by not designating all portions of the country by the June 2, 2013, deadline. In an effort intended to resolve the litigation in one of those cases, the EPA and the plaintiffs, Sierra Club and the Natural Resources Defense Council, filed a proposed consent decree with the U.S. District Court for the Northern District of California. On March 2, 2015, the court entered the consent decree and issued an enforceable order for the EPA to complete the area designations by three specific deadlines according to the court-ordered schedule.

On August 21, 2015 (80 FR 51052), the EPA separately promulgated the air quality characterization requirements. The DRR requires state air agencies to provide additional monitoring or modeling information to characterize air quality in areas associated with sources meeting certain criteria or that have otherwise been listed under the DRR by the EPA or state air agencies, or to instead impose federally enforceable emission limitations on those sources restricting their annual SO_2 emissions to less than 2,000 tons per year (tpy), or provide

documentation that the sources have been shut down, by specified dates. The information generated by implementation of the DRR can help inform the designations addressed in this TSD and subsequent designations or other actions taken by the EPA.

Updated designations guidance documents were issued by the EPA through a March 20, 2015, memorandum and a July 22, 2016, memorandum from Stephen D. Page, Director, U.S. EPA, Office of Air Quality Planning and Standards, to Air Division Directors, U.S. EPA Regions I-X. These non-binding memoranda supersede earlier designation guidance for the 2010 SO_2 NAAQS, issued on March 24, 2011, and identify factors that the EPA intends to evaluate in determining whether areas are in violation of the 2010 SO_2 NAAQS or contribute to air quality in nearby areas that are in violation of the 2010 SO_2 NAAQS. The guidance also contained the factors the EPA intended to evaluate in determining the boundaries for all remaining areas in the country, consistent with the court's order and schedule. These factors include: 1) air quality characterization via ambient monitoring or dispersion modeling results; 2) emissions-related data; 3) meteorology; 4) geography and topography; and 5) jurisdictional boundaries. This guidance was supplemented by two non-binding technical assistance documents intended to assist states and other interested parties in their efforts to characterize air quality through air dispersion modeling or ambient air quality monitoring for sources that emit SO_2. Notably, the EPA's documents titled, "SO_2 NAAQS Designations Modeling Technical Assistance Document" (Modeling TAD) and "SO_2 NAAQS Designations Source-Oriented Monitoring Technical Assistance Document" (Monitoring TAD), were first made available to states and other interested parties in spring of 2013. Both of these documents were updated in December 2013 and February 2016. The Modeling TAD was updated again in August 2016. The February 2016 Monitoring TAD is available at *https://www.epa.gov/sites/production/files/2016-06/documents/so2monitoringtad.pdf*, and the August 2016 Modeling TAD is available at *https://www.epa.gov/sites/production/files/2016-06/documents/so2modelingtad.pdf*. On March 8, 2017, the EPA issued a memo to clarify what version of the AERMOD modeling system code is the most appropriate for consideration by the Agency in the SO_2 designations process.[6]

According to the court-ordered schedule, the EPA was required to complete a second round of SO_2 designations by no later than July 2, 2016. The court order specified that in the second round, the EPA must designate two groups of areas: (1) areas that have newly monitored violations of the 2010 SO_2 NAAQS and (2) areas that contain any stationary sources that had not been announced as of March 2, 2015, for retirement and that, according to the EPA's Air Markets Database, emitted in 2012 either (i) more than 16,000 tons of SO_2, or (ii) more than 2,600 tons of SO_2 with an annual average emission rate of at least 0.45 pounds of SO_2 per one million British thermal units. Specifically, a stationary source with a coal-fired electric generating unit that, as of January 1, 2010, had a capacity of over 5 megawatts and otherwise meets the emissions criteria, is excluded from the July 2, 2016, deadline if it had announced 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 communication, by March 2, 2015, that it will cease burning coal at that unit.

[6] Clarification on the AERMOD Modeling System Version for Use in $S0_2$ Implementation Efforts and Other Regulatory Actions, Richard A. Wayland to EPA Regional Air Division Directors. This memo is available at *https://www3.epa.gov/ttn/scram/guidance/clarification/SO2_DRR_Designation_Modeling_Clarification_Memo-03082017.pdf*

On July 12, 2016, and on December 13, 2016 (81 FR 45039 and 81 FR 89870, respectively), the EPA published a final rule establishing air quality designations for 65 areas in 24 states for the 2010 SO_2 NAAQS including 7 nonattainment areas, 41 unclassifiable/attainment areas, and 17 unclassifiable areas. The EPA and state documents and public comments related to these two actions are in the docket for the second round of SO_2 designations at Docket ID NO. EPA-HQ-OAR-2014-0464. Many are also available on the SO_2 designations Web site *https://www.epa.gov/sulfur-dioxide-designations*.

The last two court-ordered deadlines for completing remaining designations are December 31, 2017 (Round 3), and December 31, 2020 (Round 4). In Round 3, which is the subject of this TSD, the EPA must designate any remaining undesignated areas for which states have not installed and begun timely operating a new SO_2 monitoring network meeting the EPA's specifications referenced in the EPA's DRR. By December 31, 2020, the EPA must designate all remaining areas.

In most respects, our final designations in this third round of designations for the SO_2 NAAQS are consistent with the March 20, 2015, and July 22, 2016, memoranda referenced above. However, we are slightly revising our definition of "unclassifiable," and renaming our proposed definition of "unclassifiable/attainment area" to "attainment/unclassifiable area" and making slight revisions to it. We are also interpreting and applying some unrevised terms in our revised definitions of "unclassifiable area" and "attainment/unclassifiable area" to apply more narrowly and more broadly, respectively than stated in these memoranda. The reason for the EPA's revised definitions and clarified interpretation of terms in these definitions is provided below. For most of the areas affected by this third round of designations, our final designation is either "unclassifiable" or "attainment/unclassifiable." The definitions of these two types of areas are the following:

In this action, an attainment/unclassifiable area is defined by the EPA as an area that either: (1) was not required to be characterized under 40 CFR 51.1203(c) or (d) for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS; or (2) was required to be characterized under 40 CFR 51.1203(c) or (d) for which the EPA has determined the available information indicates the area meets the NAAQS and does not indicate the area contributes to ambient air quality in a nearby area that does not meet the NAAQS.

In this action, an unclassifiable area is defined by the EPA as an area for which the available information does not allow EPA to determine whether the area meets the definition of a nonattainment area or the definition of an attainment/unclassifiable area.

These definitions refer to 40 CFR 51.1203(c) and (d), which are part of the EPA's DRR. The citation to these CFR sections is in effect a reference to any area that contains a DRR listed source, one emitting more than 2,000 tons per year of SO_2 or that was otherwise listed by the EPA or a state air agency, with respect to which the state has indicated that it will comply with the Data Requirements Rule either by establishing a new monitoring network or by submitting an air quality modeling analysis.

The EPA's clarification of its interpretation of the phrase "does not contribute to air quality in a nearby area that does not meet the NAAQS" reflects a general policy view that where areas are shown by available information to be meeting the NAAQS themselves, and there is an absence of available information indicating that they contribute to nearby violating areas, their designation as "attainment/unclassifiable" should not be precluded just because they have not also proven a negative – that they do not so contribute. For areas that were required to be characterized under the DRR, and for which the EPA is able to determine that the areas themselves do not violate the NAAQS, the amended term, and our clarification of our interpretation of the phrase "does not contribute to air quality in a nearby area that does not meet the NAAQS," will better communicate to the public that the EPA believes that areas meet the NAAQS and does not have available information indicating that they contribute to other nearby areas that do not meet the NAAQS. In this way, the EPA is presuming that these attaining areas are also not contributing to nearby violations, unless there is in fact available information indicating that they are contributing. These areas may be analyzed for potential contribution if a nearby area is designated nonattainment at a later time, such as in Round 4 of the SO_2 area designations.

For areas in this action that meet our above definition of "Attainment/Unclassifiable," the EPA notes this inversion, from previous rounds, of the order of the words "Attainment" and "Unclassifiable" in the amended term "Attainment/Unclassifiable area" has no consequence itself, and that there are no regulatory consequences of this change in, or clarified interpretation of, terminology to the areas in which the terms "Attainment/Unclassifiable" or "Unclassifiable" are applied. For consistency, we are also inverting the order of "Attainment" and "Unclassifiable" for areas previously designated in Round 2 (81 FR 45039 and 81 FR 89870). This re-ordering of the terms has no regulatory consequence and does not revisit the determinations made in Round 2 for these areas. The EPA believes this change is consistent with Congress's definition of "Attainment area" in CAA section 107(d)(1)(A)(ii), and will improve public understanding and make clearer what regulations apply to areas designated in this way, which states have commented they believe is important for the economic development of such areas.

As specified by the March 2, 2015, court order, the EPA is required to designate by December 31, 2017, all "remaining undesignated areas in which, by January 1, 2017, states have not installed and begun operating a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's" DRR. The EPA is therefore designating in this action all areas of the country that are not, pursuant to the DRR, timely operating new EPA-approved monitoring networks. These areas include the areas associated with sources meeting DRR emissions criteria that states have chosen to characterize using air dispersion modeling, the areas associated with sources for which states imposed emissions limitations on DRR-listed sources to restrict their SO_2 emissions to less than 2,000 tpy, the areas associated with sources for which states provided documentation of a permanent shut down of a DRR-listed source, and other areas not specifically required to be characterized under the DRR. This includes undesignated areas where existing SO_2 monitoring networks indicate the latest 3-year design values exceed the 2010 SO_2 NAAQS.

For designations for the SO_2 NAAQS, air agencies have the flexibility to characterize air quality using either appropriately sited ambient air quality monitors or modeling of actual or allowable

source emissions. The EPA issued the previously-cited non-binding draft Monitoring TAD and Modeling TAD recommending how air agencies should conduct such monitoring or modeling. For the final SO_2 designations described in the notification letters sent to governors and tribal leaders, the EPA considered available air quality monitoring data from at least calendar years 2014-2016, and modeling submitted by state air agencies and other parties. In most of the modeling runs, the impacts of the actual emissions for one or more of the 3-year periods 2012-2014, 2013-2015, and 2014-2016 were considered, and in some cases the modeling accounted for recently effective or not-yet-effective allowable emissions limits in lieu of or as a supplement to modeling of actual emissions. As stated above, the 1-hour primary SO_2 standard is violated at an ambient air quality monitoring site (or in the case of dispersion modeling, at an ambient air quality receptor location) when the 3-year average of the annual 99th percentile of the daily maximum 1-hour average concentrations exceeds 75 ppb, as determined in accordance with Appendix T of 40 CFR part 50. To determine whether an area contains model-based violations, the EPA believes that dispersion modeling is an appropriate tool, as discussed in the Modeling TAD. The Modeling TAD provides recommendations on how an air agency can appropriately and sufficiently model ambient air in proximity to an SO_2 emission source to establish air quality data for comparison to the 2010 primary SO_2 NAAQS for the purposes of designations. In formulating our final designations, we have considered these EPA recommendations but we have also considered any other information provided by the states, territories, tribes, or any other third party commenters for why a different approach may be appropriate.

The following are definitions of important terms used in this TSD for all states in our final designations:

1) 2010 SO_2 NAAQS – The primary NAAQS for SO_2 promulgated in 2010. This NAAQS is 75 ppb, based on the 3-year average of the 99th percentile of the annual distribution of daily maximum 1-hour average concentrations. *See* 40 CFR 50.17.
2) Design Value – a statistic computed according to the data handling procedures of the NAAQS (in 40 CFR part 50 Appendix T) that, by comparison to the level of the NAAQS, indicates whether the area is violating the NAAQS.
3) Designated nonattainment area – an area that, based on available information including (but not limited to) appropriate modeling analyses and/or monitoring data, the EPA has determined either: (1) does not meet the 2010 SO_2 NAAQS, or (2) contributes to ambient air quality in a nearby area that does not meet the NAAQS.
4) Designated attainment/unclassifiable area – an area that either: (1) was not required to be characterized under 40 CFR 51.1203(c) or (d) for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS; or (2) was required to be characterized under 40 CFR 51.1203(c) or (d) for which the EPA has determined the available information indicates the area meets the NAAQS and does not indicate the area contributes to ambient air quality in a nearby area that does not meet the NAAQS.
5) Designated unclassifiable area –an area for which the available information does not allow EPA to determine whether the area meets the definition of a nonattainment area or the definition of an attainment/unclassifiable area.
6) Modeled violation – a violation of the SO_2 NAAQS demonstrated by air dispersion modeling.

7) Recommended attainment area – an area that a state, territory, or tribe has recommended that the EPA designate as attainment.
8) Recommended nonattainment area – an area that a state, territory, or tribe has recommended that the EPA designate as nonattainment.
9) Recommended unclassifiable area – an area that a state, territory, or tribe has recommended that the EPA designate as unclassifiable.
10) Recommended unclassifiable/attainment or attainment/unclassifiable area – an area that a state, territory, or tribe has recommended that the EPA designate as unclassifiable/attainment or attainment/unclassifiable.
11) Violating monitor – an ambient air monitor meeting 40 CFR parts 50, 53, and 58 requirements whose valid design value exceeds 75 ppb, based on data analysis conducted in accordance with Appendix T of 40 CFR part 50.
12) We, our, and us – these refer to the EPA.

Technical Support Document:

Chapter 2
Final Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standard for States with Sources Not Required to be Characterized

1. Introduction

Pursuant to section 107(d) of the Clean Air Act (CAA), the U.S. Environmental Protection Agency (the EPA, we, or us) must designate areas as either "nonattainment," "attainment," or "unclassifiable" for the 2010 1-hour sulfur dioxide (SO_2) primary national ambient air quality standard (NAAQS) (2010 SO_2 NAAQS). The CAA defines a nonattainment area as an area that does not meet the NAAQS or that contributes to a nearby area that does not meet the NAAQS. An attainment area is defined by the CAA as any area that meets the NAAQS and does not contribute to a nearby area that does not meet the NAAQS. Unclassifiable areas are defined by the CAA as those that cannot be classified on the basis of available information as meeting or not meeting the NAAQS.

In this action, The EPA has defined the following three terms for use in this action: a nonattainment area as an area that the EPA has determined violates the 2010 SO_2 NAAQS or contributes to a violation in a nearby area, based on the most recent 3 years of air quality monitoring data, appropriate dispersion modeling analysis, and any other relevant information.

In this action, an attainment/unclassifiable area is defined by the EPA as an area that either: (1) was not required to be characterized under 40 CFR 51.1203(c) or (d) for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS; or (2) was required to be characterized under 40 CFR 51.1203(c) or (d) for which the EPA has determined the available information indicates the area meets the NAAQS and does not indicate the area contributes to ambient air quality in a nearby area that does not meet the NAAQS.

In this action, an unclassifiable area is defined by the EPA as an area for which the available information does not allow EPA to determine whether the area meets the definition of a nonattainment area or the definition of an attainment/unclassifiable area.

This technical support document (TSD) addresses designations for almost all of the remaining undesignated areas in the U.S. for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[1] The EPA is

[1] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).

under a December 31, 2017, deadline to designate the areas addressed in this TSD as required by the U.S. District Court for the Northern District of California.[2] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of the Round 3 designations, the only remaining undesignated areas will be those where a state has installed and begun timely operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 Data Requirements Rule (DRR) (80 FR 51052). The EPA is required to designate those remaining undesignated areas by December 31, 2020.

Designation-related information for 14 states and territories, for which there is limited information to inform the designations, are addressed together in this Chapter 2, in the interest of conciseness. Also, Section 16 of this chapter provides information on emission limits and shutdowns for sources on the EPA's SO_2 DRR source list. Section 16 covers all states and territories for which emission limits or shutdowns are a factor, not just the previously mentioned 14 states and territories.

For these areas, there have been no changes in the state or territory recommended designations since we communicated our intended designations for these areas. In addition, neither the state or territory nor any other party submitted additional relevant information since the publication of the NOA. For areas of these states and territories discussed in Chapter 2, that are part of the Round 3 designations process, we are finalizing the designations described in our 120-day letters and the TSD for the intended Round 3 area designations. The EPA's final designations for these areas, as detailed in the sections below, are based on an assessment and characterization of air quality through ambient air quality data, air dispersion modeling, other evidence and supporting information, or a combination of the above.

[2] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).

2. Alaska

This section addresses designations for all areas in Alaska for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[3] No part of Alaska was designated in these previous final actions. The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[4] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of the Round 3 designations, the only remaining undesignated areas will be those where a state began operation of a new SO_2 monitoring network in meeting EPA specifications referenced in the EPA's SO_2 DRR. The EPA is required to designate those remaining undesignated areas by December 31, 2020. Alaska has no undesignated areas after Round 3.

Alaska submitted its first recommendation regarding designations for the 2010 1-hour SO_2 NAAQS on June 2, 2011. The state recommended that all areas of the state be designated unclassifiable. The state did not submit an air quality analysis or updated recommendations afterwards.

Alaska does not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

2.1. Air Quality Monitoring Data for Areas in Alaska

The State of Alaska operates a single long-term SO_2 monitoring site. AQS monitor site ID 02-090-0034 (NCORE Monitor) located at 809 Pioneer Road, Fairbanks, Alaska, has sufficient valid data for 2012-2014, 2013-2015, and 2014-2016, and these data indicate that there was no violation of the 2010 SO_2 NAAQS at the monitoring site in those periods. This Fairbanks NCORE Monitoring site had a 2014-2016 3-year design value of 36 parts per billion (ppb), a value lower than the SO_2 NAAQS of 75 ppb. The Fairbanks NCORE Monitoring site is less than one mile from the Chena River Power Plant, which emitted 654.9 tons of SO_2 in 2014. The SO_2 Data Requirements Rule does not require Alaska to characterize air quality for the area around this source, and Alaska did not provide specific information indicating that the Fairbanks NCORE monitoring site is located in an area of maximum expected concentration in relation to this source. Air quality monitoring data discussed in this section can be found at https://www.epa.gov/air-trends/air-quality-design-values.

[3] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[4] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).

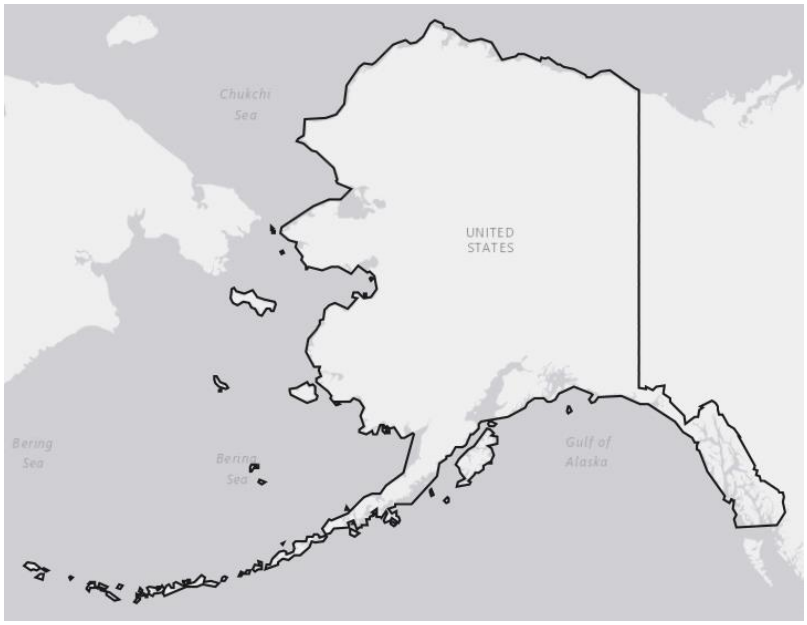
2.2. Summary of Our Final Designations for Alaska

For the areas in Alaska that are being designated in Round 3, Table 1 and Figure 1 identify the EPA's final designations and the boroughs or portions of boroughs and census areas to which they apply. It also lists Alaska's current recommendation. The state has not installed and begun timely operation of a new, approved SO_2 monitoring network meeting EPA specifications referenced in the EPA's DRR for any sources of SO_2 emissions in the areas identified in Table 1. Accordingly, the EPA must designate these areas by December 31, 2017. At this time, there are no air quality modeling results available to the EPA for these areas. In addition, there are no air quality monitoring data that currently indicate any violation of the 1-hour SO_2 NAAQS. The EPA is designating the areas in Table 1 in the state as "attainment/unclassifiable" since these areas were not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS. Figure 1 shows the boundary of the final Alaska attainment/unclassifiable area.

Table 1. Summary of the EPA's Final Designation and the Designation Recommendation by Alaska

Boroughs/ Census Areas	Alaska's Recommended Area Definition	Alaska's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
All Boroughs and Census Areas	Entire state	Unclassifiable	Unclassifiable/ Attainment	Same as State's Recommendation	Attainment/ Unclassifiable

Figure 1. The EPA's Final Attainment/Unclassifiable Designation for Alaska



3. American Samoa

This section addresses designations for all areas in American Samoa for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[5] No part of American Samoa was designated in these previous final actions. The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[6] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of Round 3 designations, the only remaining undesignated areas will be those where a state began operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 DRR. The EPA is required to designate those remaining undesignated areas by December 31, 2020. American Samoa has no undesignated areas after Round 3.

American Samoa did not submit recommendations regarding designations for the 2010 1-hour SO_2 NAAQS, in 2011 or subsequently. Also, American Samoa did not submit any air quality analyses to the EPA.

American Samoa does not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

3.1. Air Quality Monitoring Data for American Samoa

There are no regulatory ambient air quality SO_2 monitors in American Samoa.

3.2. Other Information Relevant to the Designations for American Samoa

American Samoa consists of five volcanic islands and two coral atolls, and is administratively divided into three districts (the Eastern, Western, and Manu'a Districts), and two atolls (Swains and Rose Islands). Previous designations for American Samoa have either designated all of American Samoa as a whole "state," or territory-wide, without listing the district subdivisions (*e.g.*, for the 1971 SO_2 NAAQS, 2010 NO_2 1-hour NAAQS, 2008 8-hour ozone NAAQS, and 2008 lead NAAQS), or have listed out the three districts and two atolls as separate areas (*e.g.*, the 1997 and 2012 Annual $PM_{2.5}$ NAAQS, and the 1997 and 2006 24-hour $PM_{2.5}$ NAAQS).[7] Generally, all areas of American Samoa are designated as unclassifiable/attainment for all other NAAQS.[8]

[5] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[6] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).
[7] 40 CFR 81.352 – American Samoa.
[8] American Samoa is designated as "better than national standards" for TSP and the 1971 SO_2 NAAQS.

3.3. Summary of Our Final Designation for American Samoa

After careful evaluation of all available relevant information, the EPA is designating American Samoa as a single attainment/unclassifiable area for the 2010 SO_2 NAAQS.

Table 2. Summary of the EPA's Final Designation and the Designation Recommendation for American Samoa

Area of American Samoa	American Samoa's Recommended Area Definition	American Samoa's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Territory-wide: Consisting of all three American Samoa Districts (Eastern, Western, and Manu'a) and two atolls (Swains Island and Rose Island)	None Received	None Received	Unclassifiable / Attainment	All of American Samoa	Attainment/ Unclassifiable

Figure 2. The EPA's Final Attainment/Unclassifiable Designation for American Samoa

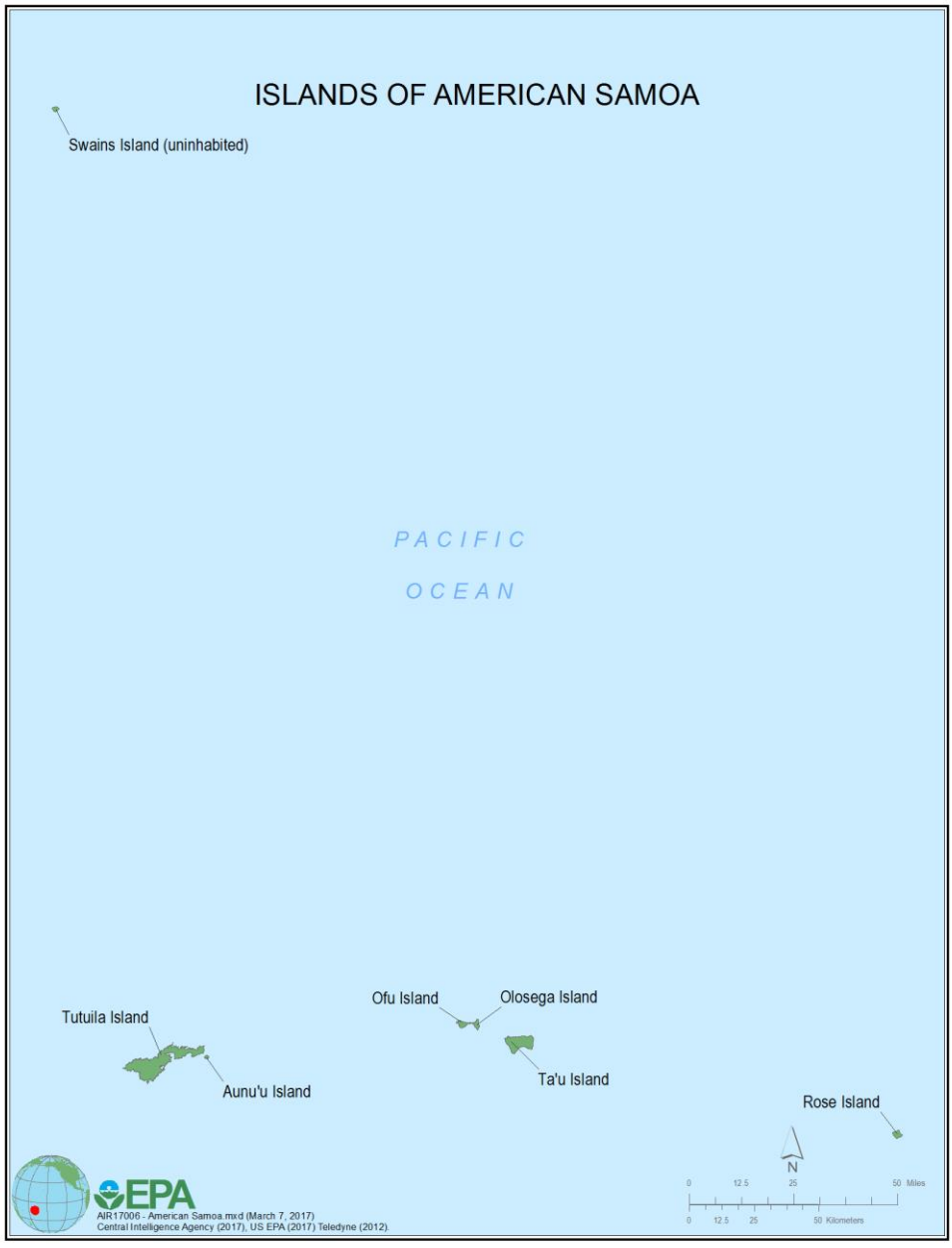


Table 2 and Figure 2 identify the EPA's final designations for American Samoa. As indicated in Table 2, American Samoa has not offered a recommendation regarding designations. The territory has not installed and begun timely operation of a new, approved SO_2 monitoring network meeting EPA specifications referenced in the EPA's DRR for any sources of SO_2

emissions in the territory. Accordingly, the EPA must designate all of the territory by December 31, 2017. At this time, there are no air quality modeling results available to the EPA for any of the territory. In addition, there are no air quality monitoring data that currently indicate any violation of the 1-hour SO_2 NAAQS. The EPA is designating American Samoa as a single "attainment/unclassifiable" area since this area was not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS.

Figure 2 above shows the boundaries of the final American Samoa attainment/unclassifiable area.

4. Commonwealth of the Northern Mariana Islands

This section addresses designations for all areas in the Commonwealth of the Northern Mariana Islands (CNMI) for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[9] No part of the CNMI was designated in these previous final actions. The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[10] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of the Round 3 designations, the only remaining undesignated areas will be those where a state began operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 DRR. The EPA is required to designate those remaining undesignated areas by December 31, 2020. The CNMI has no undesignated areas after Round 3.

The territory submitted a recommendation that CNMI be designated unclassifiable for the 2010 1-hour SO_2 NAAQS on June 1, 2011.[11] CNMI did not submit any air quality analyses to the EPA.

CNMI does not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

4.1. Air Quality Monitoring Data for CNMI

There are no regulatory ambient air quality SO_2 monitors in CNMI.

4.2. Other Information Relevant to the Designations for CNMI

CNMI is divided into four municipalities encompassing the 15 islands of CNMI.
Previous designations for CNMI have either designated CNMI as a whole "state," or as the "Northern Mariana Islands" without listing out jurisdictional subdivisions (*e.g.*, 2010 1-hour NO_2 NAAQS, 1997 and 2008 8-hour ozone NAAQS, 2008 lead NAAQS, 1971 SO_2 NAAQS), or designated CNMI as a "territory-wide" area and listed out the four municipalities of CNMI: The Northern Islands, Rota, Saipan, and Tinian Municipalities (*e.g.*, 1997 and 2010 Annual $PM_{2.5}$ NAAQS, and the 1997 and 2006 24-hour $PM_{2.5}$ NAAQS).[12] Generally, CNMI is designated unclassifiable/attainment for all other NAAQS.[13]

[9] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[10] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).
[11] *See* letter dated June 1, 2011, from Eloy S. Inos, Commonwealth of the Northern Mariana Islands, to Deborah Jordan, EPA Region IX.
[12] 40 CFR 81.354 – Northern Mariana Islands.
[13] CNMI is designated as "better than national standards" for TSP and the 1971 SO_2 NAAQS.

4.3. Summary of the EPA's Final Designation for CNMI

CNMI recommended that all of CNMI, be designated as unclassifiable based on the lack of monitoring or modeling data to characterize air quality in CNMI. After careful evaluation of the territory's recommendation and supporting information, as well as all available relevant information, the EPA is designating the areas in Table 3 as a single attainment/unclassifiable area for the 2010 SO_2 NAAQS since this area was not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS. Our final attainment/unclassifiable area, all of CNMI, has clearly defined legal boundaries, and we find these boundaries to be a suitable basis for defining our final attainment/unclassifiable area.

Table 3. Summary of the EPA's Final Designations and the Designation Recommendations by CNMI

Area of CNMI	CNMI's Recommended Area Definition	CNMI's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Territory-wide*	All of CNMI	Unclassifiable	Unclassifiable / Attainment	Same as CNMI's recommendation	Attainment/ Unclassifiable

Figure 3. The EPA's Final Attainment/Unclassifiable Designation for CNMI

Figure 3 above shows the location and boundary of the final CNMI attainment/unclassifiable area.

5. Delaware

This section addresses designations for all areas in Delaware for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[14] No part of Delaware was designated in these previous final actions. The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[15] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With completion of the Round 3 designations, the only remaining undesignated areas will be those where a state began operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 DRR. The EPA is required to designate those remaining undesignated areas by December 31, 2020. Delaware has no undesignated areas after Round 3.

Delaware submitted its first recommendation regarding designations for the 2010 1-hour SO_2 NAAQS on June 13, 2011 and recommended a designation of unclassifiable for all counties. It is not clear from this letter whether at this time Delaware intended that the three counties in Delaware be designated separately or as part of one state-wide designated area. On June 5, 2013, Delaware submitted an air quality analysis to support an updated recommendation for a designation of attainment for the entire state for the 2010 SO_2 1-hour standard. In general, the modeling supports this conclusion. However, the Delaware modeling was performed using an older version of AERMOD, version 12060, which was released in February 2012. This version does not include bug fixes applied to the modeling system since version 12060 that can affect model results. The modeling submitted by the state was performed prior to the EPA releasing our Modeling TAD and uses outdated emissions data that do not reflect more recent emissions levels, and therefore does not necessarily provide an indicator of current air quality for purposes of designations in Round 3. This modeling information, as submitted by the state, is in Docket # EPA-HQ-OAR-2012-0233 and can be found here: https://www.regulations.gov/document?D=EPA-HQ-OAR-2012-0233-0299. In our final designations, we have considered all the submissions from the state, except where a recommendation in a later submission regarding a particular area indicates that it completely replaces an earlier recommendation for that area; in those cases, we have considered the recommendation in the later submission.

Delaware does not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

5.1. Air Quality Monitoring Data for the State of Delaware

This factor considers the SO_2 air quality monitoring data in Delaware. Although the state did not provide specific monitoring data, the EPA reviewed all available monitoring data for the state

[14] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[15] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).

that are in AQS. All the valid DVs are well below the 75 ppb standard. Monitors with incomplete data also have very low SO_2 values. The available monitoring data are summarized in Table 4. Note that * indicates an incomplete/invalid design value.

Table 4. Air Quality Monitoring Data for the State of Delaware

County/City	AQS Monitor ID	Latitude	Longitude	2011-2013 Design Value	2012-2014 Design Value	2013-2015 Design Value	2014-2016 Design Value
New Castle	10-003-1007	39.5513	- 75.732	10*	7*	10*	9*
New Castle	10-003-1008	39.57768	-75.6036	19*	17	11	12
New Castle	10-003-1013	39.773889	- 75.496389	12*	9*	10	9
New Castle	10-003-2004	39.739444	- 75.558056	13*	13*	13*	10
Sussex	10-005-1003	38.7791	-76.16323	9*	8*	6	4

While these data were available to EPA for consideration in the designation process, the EPA does not have information indicating that any of the existing monitors are located in an area of maximum concentration around specific SO_2 sources. Air quality monitoring data discussed in this section can be found at https://www.epa.gov/air-trends/air-quality-design-values.

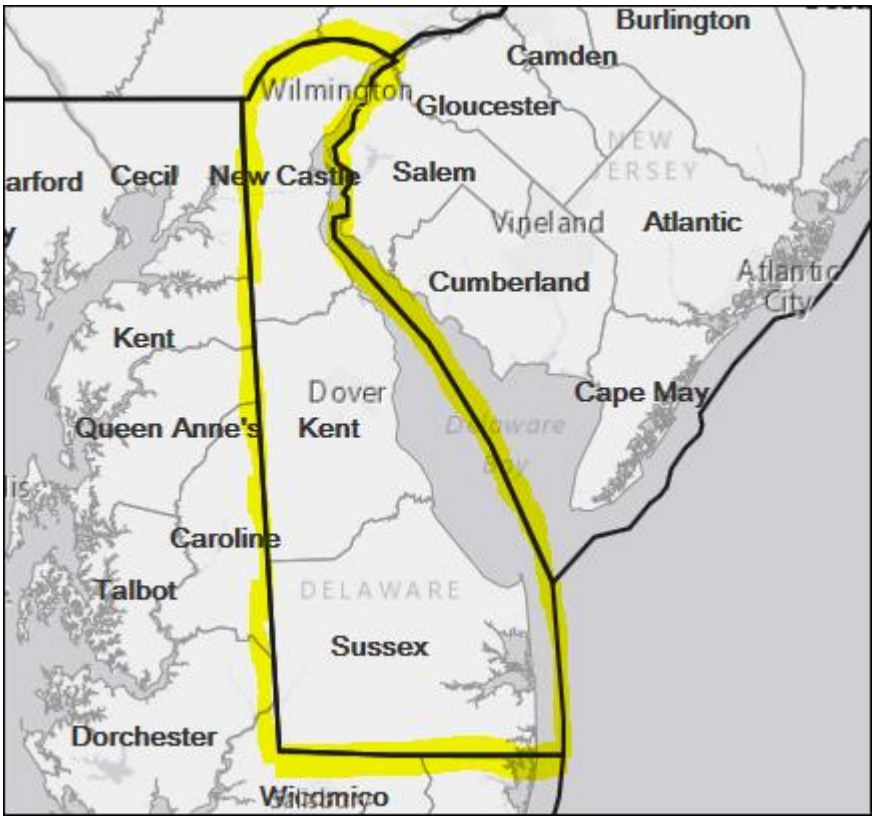
5.2. Summary of Our Final Designations for Delaware

For the areas in Delaware that are being designated in Round 3, Table 4 and Figure 4 identify the EPA's final designations and the areas to which they apply. It also lists Delaware's current recommendations. The state has not installed and begun timely operation of a new, approved SO_2 monitoring network meeting EPA specifications referenced in the EPA's DRR for any sources of SO_2 emissions in the counties identified in Table 4. Accordingly, the EPA must designate these counties by December 31, 2017. At this time, there are no air quality modeling results showing NAAQS violations available to the EPA for any area in Delaware. In addition, there are no air quality monitoring data that currently indicate any violation of the 1-hour SO_2 NAAQS. The EPA is designating the counties in Table 5 in the state as "attainment/unclassifiable" since these areas were not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS. Figure 4 shows the boundary of the final attainment/unclassifiable designation for Delaware.

Table 5. Summary of the EPA's Final Designations and the Designation Recommendations by Delaware

Area/ County	Delaware's Recommended Area Definition	Delaware's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
State of Delaware	Entire State	Attainment	Unclassifiable / Attainment	Entire State	Attainment/ Unclassifiable

Figure 4. The EPA's Final Attainment/Unclassifiable Designation for Delaware



6. District of Columbia

This section addresses designations for all areas in the District of Columbia (DC or the District) for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[16] No part of DC was designated in these previous final actions. The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[17] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of the Round 3 designations, the only remaining undesignated areas will be those where a state began operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 Data Requirements Rule (DRR). (80 FR 51052). The EPA is required to designate those remaining undesignated areas by December 31, 2020. The District of Columbia has no undesignated areas after Round 3.

The District submitted its first recommendation regarding designations for the 2010 1-hour SO_2 NAAQS on May 23, 2011, and recommended a designation of unclassifiable for the entire District. On November 4, 2016, the District updated its recommendation and recommended attainment for the entire district, based on newer data from a monitor that had begun operation in 2012. In our final designations, we have considered all the submissions from the state, except where a recommendation in a later submission regarding a particular area indicates that it completely replaces an earlier recommendation for that area we have considered the recommendation in the later submission.

The District does not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

[16] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[17] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).

6.1. Air Quality Monitoring Data for the District of Columbia Area

Table 6. Monitored Data in the District of Columbia

Monitor	Latitude	Longitude	2012-2014 Design Value (ppb)	2013-2015 Design Value (ppb)	2014-2016 Design Value (ppb)
11-001-0043	38.921847	-77.013178	11	12	11
11-001-0041	38.895572	-76.958072	10*	10*	8*

* Denotes incomplete data

There are two monitors located in the District of Columbia. In 2012, the District began operation of a new SO_2 monitor (11-001-0043) at the McMillan Reservoir Station. The monitor met all EPA specifications for monitoring. AQS monitor 11-001-0043 has sufficient valid data for the 2012-2014, 2013-2015, and 2014-2016 periods and these data indicate that there was no violation of the 2010 SO_2 NAAQS at the monitoring site in those periods as shown on Table 6. While these data were available to the EPA for consideration in the designation process, the EPA does not have information indicating that any of the existing monitors are located in an area of maximum concentration around specific SO_2 sources.

AQS monitor 11-001-0041, located at River Terrace, had incomplete data in the second quarter of 2014 through the first quarter of 2016 because of construction on the building where it is sited. This monitor began collecting data again starting with the second quarter of 2016 through the present.

Air quality monitoring data discussed in this section can be found at https://www.epa.gov/air-trends/air-quality-design-values.

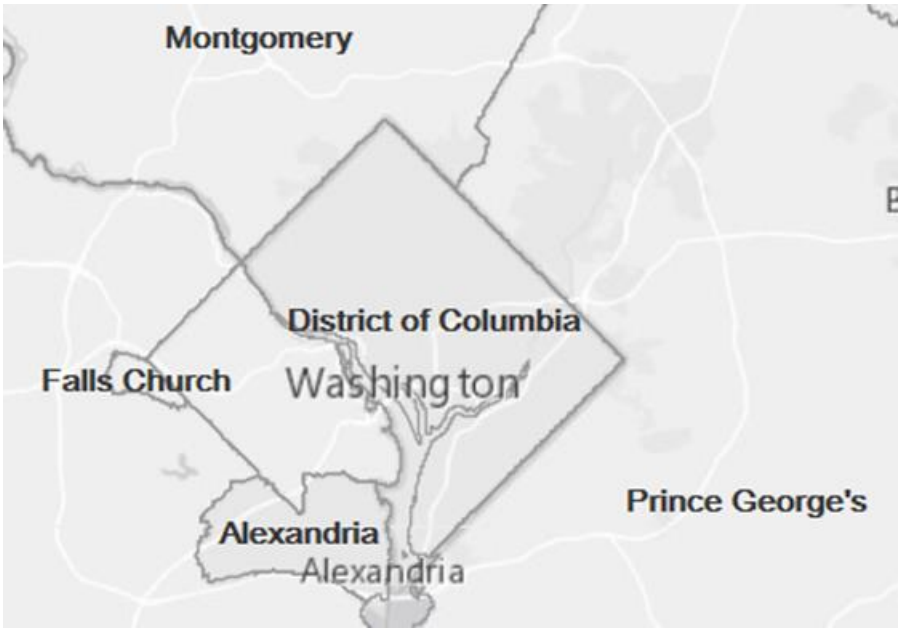
6.2. Summary of Our Final Designation for the District of Columbia

Since the District is being designated in Round 3, Table 7 and Figure 5 identify the EPA's final designation. It also lists the District's current recommendations. The District has not installed and begun timely operation of a new, approved SO_2 monitoring network meeting EPA specifications referenced in the EPA's DRR for any sources of SO_2 emissions in the District. Accordingly, the EPA must designate the District by December 31, 2017. At this time, there are no air quality modeling results available to the EPA for the District. In addition, there are no air quality monitoring data that currently indicate any violation of the 1-hour SO_2 NAAQS. The EPA is designating the District as "attainment/unclassifiable" since the District was not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS.

Table 7. Summary of the EPA's Final Designation and the Designation Recommendation by the District of Columbia

Area/ County	District of Columbia's Recommended Area Definition	District of Columbia's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
District of Columbia	Entire District of Columbia	Attainment	Unclassifiable / Attainment	Entire District of Columbia	Attainment/ Unclassifiable

Figure 5. Boundary of the Final District of Columbia Attainment/Unclassifiable Area



The EPA is designating the District of Columbia Area as attainment/unclassifiable for the 2010 SO_2 NAAQS. Specifically, the boundary is comprised of the entire District of Columbia area.

7. Hawaii

This section addresses designations for all areas in Hawaii for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[18] Specifically, the EPA designated Hawaii County, Hawaii, as unclassifiable/attainment as part of Round 2 on July 12, 2016. The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[19] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. Specifically, the EPA is finalizing designations in this round for Kauai, Kalawao, and Maui Counties. With the completion of the Round 3 designations, the only remaining undesignated area in Hawaii will be Honolulu County, the area where Hawaii began timely operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 DRR. The EPA is required to designate this remaining undesignated area by December 31, 2020.

Hawaii submitted its recommendation that all counties in Hawaii be designated unclassifiable for the 2010 SO_2 NAAQS on May 19, 2011.[20] In our final designations, we have considered all the submissions from the state.

Hawaii does not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

7.1. Air Quality Monitoring Data for Kauai, Kalawao, and Maui Counties

AQS monitor 15-007-0007 located at 2342 Hulemalua Road on Kauai has a valid 2014-2016 design value of 19 ppb. While these data were available to the EPA for consideration in the designation process, the EPA does not have information indicating that any of the existing monitors are located in an area of maximum concentration around specific SO_2 sources. Air quality monitoring data discussed in this section can be found at https://www.epa.gov/air-trends/air-quality-design-values.

7.2. Other Information Relevant to the Designations for Kauai, Kalawao, and Maui Counties

The state of Hawaii is composed of five counties: The City and County of Honolulu, Hawaii County, Maui County, Kauai County, and Kalawao County. Kalawao County is located on the north coast of the island of Molokai. Maui County consists of the islands of Maui, Lanai, Molokai (except for the Kalawao County portion of Molokai), Kahoolawe, and Molokini. Kauai

[18] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[19] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).
[20] *See* letter dated May 19, 2011, from Neil Abercrombie, Governor of Hawaii, to Jared Blumenfeld, EPA Region IX.

County consists of the islands of Kauai, Niihau, Lehua, and Kaula. The Clean Air Branch of the Hawaii Department of Health administers air quality programs in all of Hawaii.

Previous designations of areas in Hawaii have generally relied on county boundaries to define separate county-level unclassifiable/attainment areas for other NAAQS (*e.g.*, 2008 8-hour ozone NAAQS, 2010 NO_2 NAAQS, 1997 and 2012 Annual $PM_{2.5}$ NAAQS, and 1997 and 2006 24-hour $PM_{2.5}$ NAAQS), or designated the whole state as one area, both by listing the five counties in Hawaii (*e.g.*, carbon monoxide NAAQS, 1-hour ozone NAAQS), and without listing out the counties (*e.g.*, TSP NAAQS, and 1971 SO_2 NAAQS).[21]

7.3. Summary of Our Final Designation for Hawaii

For the areas in Hawaii that are being designated in the Round 3 designations process, Table 8 and Figure 6 identify the EPA's final designation of Hawaii as distinct attainment/unclassifiable areas. It also lists Hawaii's current recommendations. The state has not installed and begun timely operation of a new, approved SO_2 monitoring network meeting EPA specifications referenced in the EPA's DRR for any sources of SO_2 emissions in the counties identified in Table 8. Accordingly, the EPA must designate these counties by December 31, 2017. At this time, there are no air quality modeling results available to the EPA for these counties. In addition, there are no air quality monitoring data that currently indicate any violation of the 1-hour SO_2 NAAQS in these counties. The EPA is designating the counties in Table 8 in the state as "attainment/unclassifiable" since these counties were not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS.

Table 8. Summary of the EPA's Final Designations and the Designation Recommendations by Hawaii

Area/ County	Hawaii's Recommended Area Definition	Hawaii's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Kauai County	Kauai County	Unclassifiable	Unclassifiable / Attainment	Same as Hawaii's Recommendation	Attainment/ Unclassifiable
Kalawao County	Kalawao County	Unclassifiable	Unclassifiable / Attainment	Same as Hawaii's Recommendation	Attainment/ Unclassifiable
Maui County	Maui County	Unclassifiable	Unclassifiable / Attainment	Same as Hawaii's Recommendation	Attainment/ Unclassifiable

[21] 40 CFR 81.312 Hawaii.

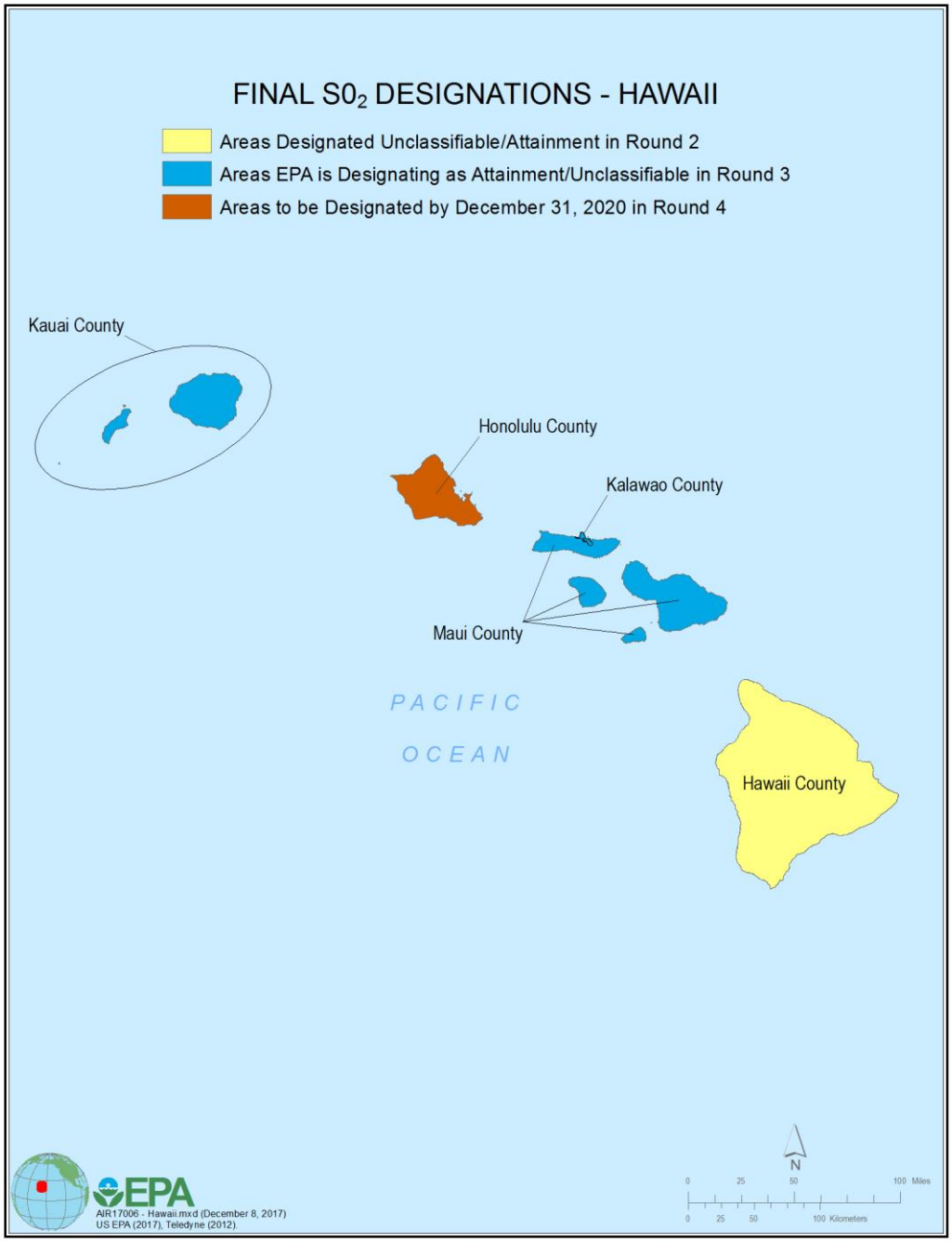
Areas for which Hawaii elected to install and began operation of a new, approved SO_2 monitoring network are listed in Table 9. The EPA is required to designate these areas, pursuant to a court ordered schedule, by December 31, 2020. Table 9 also lists the SO_2 emissions sources around which each new, approved monitoring network has been established.

Table 9 – Undesignated Areas Which the EPA Is Not Addressing in this Round of Designations (and Associated Source or Sources)

Area	Source(s)
Honolulu County	Kahe Generating Station; Waiau Generating Station; Kalaeloa Cogeneration Plant; AES Hawaii, Inc.

Areas in Hawaii that the EPA previously designated in Round 1 (*see* 78 FR 47191) and Round 2 (*see* 81 FR 45039 and 81 FR 89870) are not affected by the designations in Round 3 unless otherwise noted. Hawaii County was designated unclassifiable/attainment in Round 2.

Figure 6. The EPA's Final Attainment/Unclassifiable Designations for Counties in Hawaii



The state recommended that each of the counties of Kauai, Kalawao, and Maui be designated unclassifiable based on the lack of modeling data in these areas. After careful evaluation of the state's recommendation and supporting information, as well as all available relevant information, the EPA is designating Kauai, Kalawao, and Maui Counties as three separate attainment/unclassifiable areas for the 2010 SO_2 NAAQS. Our final attainment/unclassifiable areas, bounded by county boundaries, have clearly defined legal boundaries, and we find these

boundaries to be a suitable basis for defining these three attainment/unclassifiable areas. Specifically, the boundaries are comprised of the boundaries for each of these counties.

Figure 6 above shows the location of these areas within Hawaii and the final Kauai, Kalawao, and Maui County attainment/unclassifiable areas.

At this time, our final designations for the state only apply to Kauai, Kalawao, and Maui Counties. Honolulu County, the remaining undesignated county in Hawaii, will be designated by December 31, 2020.

8. Idaho

This section addresses designations for all areas in Idaho for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[22] No part of Idaho was designated in these previous final actions. The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[23] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of the Round 3 designations, the only remaining undesignated areas will be those where a state began operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 DRR. The EPA is required to designate those remaining undesignated areas by December 31, 2020. Idaho has no undesignated areas after Round 3.

Idaho submitted its first recommendation regarding designations for the 2010 1-hour SO_2 NAAQS on May 19, 2011. This recommendation was that the entire State of Idaho and all four of Idaho's Air Quality Control Regions be designated unclassifiable. The state submitted an updated air quality analysis based on monitoring along with updated recommendations on January 13, 2016. The updated recommendations were that Ada, Canyon, Bannock, and Caribou Counties be designated attainment. In our final designations, we have considered all the submissions from the state, except where a recommendation in a later submission regarding a particular area indicates that it completely replaces an earlier recommendation for that area we have considered the recommendation in the later submission.

Idaho does not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

8.1. Air Quality Monitoring Data for Idaho

AQS monitor 16-005-0004 located at Pocatello monitoring site in Bannock County has sufficient valid data for 2014-2016 and these data indicate that there was no violation of the 2010 SO_2 NAAQS at the monitoring site in that period. AQS monitor 160290031 located at Soda Springs monitoring site 16-029-0031 in Caribou County has sufficient valid data for 2014-2016 and these data indicate that there was no violation of the 2010 SO_2 NAAQS at the monitoring site in that period. AQS monitor 16-001-0010 located at Meridian monitoring site in Ada County has sufficient valid data for 2014-2016 and these data indicate that there was no violation of the 2010 SO_2 NAAQS at the monitoring site in that period. While these data were available to the EPA for consideration in the designation process, the EPA does not have information indicating that any of the existing monitors are located in an area of maximum concentration around specific SO_2 sources. Air quality monitoring data discussed in this section can be found at https://www.epa.gov/air-trends/air-quality-design-values.

[22] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[23] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).

8.2. Summary of Our Final Designations for Idaho

For the areas in Idaho that are being designated in Round 3, Table 10 and Figure 7 identify the EPA's final designation of Idaho as a single attainment/unclassifiable area. It also lists Idaho's current recommendations. The state has not installed and begun timely operation of a new, approved SO_2 monitoring network meeting EPA specifications referenced in the EPA's DRR for any sources of SO_2 emissions in the counties identified in Table 10. Accordingly, the EPA must designate these counties by December 31, 2017. At this time, there are no air quality modeling results available to the EPA for these counties. In addition, there are no air quality monitoring data that currently indicate any violation of the 1-hour SO_2 NAAQS. The EPA is designating the entire state of Idaho as "attainment/unclassifiable" since these areas were not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS.

Table 10. The EPA's Final Designations and the Designation Recommendations by Idaho

Area	Idaho's Recommended Area Definition	Idaho's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Entire State of Idaho	Ada, Canyon, Bannock, & Caribou Counties	Attainment	Unclassifiable / Attainment	Entire State of Idaho as One Designated Area	Attainment/ Unclassifiable
	Remaining Counties	Unclassifiable			

Figure 7. The EPA's Final Attainment/Unclassifiable Designation for Idaho

The EPA is designating the entire State of Idaho as a single attainment/unclassifiable area for the 2010 SO_2 NAAQS. Specifically, the boundaries are comprised of all areas within the borders of the State of Idaho.

Figure 7 above shows the boundary of the final Idaho attainment/unclassifiable area.

9. Kansas

This section addresses designations for all areas in Kansas for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[24] The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[25] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of the Round 3 designations, the only remaining undesignated areas will be those where a state began operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 DRR. The EPA is required to designate those remaining undesignated areas by December 31, 2020. Kansas has no undesignated areas after Round 3.

Kansas submitted its first recommendation regarding designations for the 2010 1-hour SO_2 NAAQS on June 13, 2011. This recommendation was that each of the 105 counties in Kansas be designated as a separate unclassifiable area. Kansas submitted revised recommendations for Linn, Wyandotte, and Shawnee Counties on September 9, 2015. The revised recommendations were that Linn County be designated attainment and that Wyandotte and Shawnee County be designated unclassifiable/attainment. The EPA designated Linn County as unclassifiable/attainment and Wyandotte and Shawnee Counties as unclassifiable in an action published July 12, 2016. The state submitted recommendations for the redesignation of Wyandotte and Shawnee Counties to unclassifiable/attainment on January 12, 2017, along with air quality modeling results for these two counties. We will respond to Kansas' recommendations to redesignate these two areas in a separate action. In our final designations for the areas not yet designated, we have considered all the submissions from the state.

Kansas does not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

9.1. Air Quality Monitoring Data for Kansas

The following AQS monitors in Kansas have sufficient valid data for 2014–2016 and these data indicate that there were no violations of the 2010 SO_2 NAAQS at these monitoring sites in that period:

[24] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[25] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).

(1) Trego County Monitor, AQS ID #20-195-0001, Pronghorn and Muley, Cedar Bluff Reservoir, Lat N 38.77027, Long W -99.76361;

(2) Peck Monitor, AQS ID #20-191-0002, 707 E 119th Street South, Peck, Lat 37.476890, Long. -97.366399; and

(3) Kansas City JFK Monitor, AQS ID #20-209-0021, Kansas City, Lat. 39.117219, Long. -94.635605.

While these data were available to the EPA for consideration in the designation process, the EPA does not have information indicating that any of the existing monitors are located in an area of maximum concentration around specific SO_2 sources. Air quality monitoring data discussed in this section can be found at https://www.epa.gov/air-trends/air-quality-design-values.

9.2. Other Relevant Information for Our Final Designations

The State of Missouri submitted a modeling analysis for the area around the Empire District Electric Company Asbury Plant, which is close to the border between Missouri and Kansas. The receptor grid for the modeling included all of Cherokee and Crawford Counties in Kansas. The modeling did not predict any SO_2 NAAQS violations. *See* Chapter 22 of this TSD for additional details on this modeling by Missouri.

9.3. Summary of Our Final Designations for Kansas

For the areas in Kansas that are being designated in Round 3, Tables 11 and Figure 8 identify the EPA's final designations and the counties to which they apply. It also lists Kansas' recommendations. The state has not installed and begun timely operation of a new, approved SO_2 monitoring network meeting EPA specifications referenced in the EPA's DRR for any sources of SO_2 emissions in the counties identified in Table 11. Accordingly, the EPA must designate these counties by December 31, 2017. At this time, there are no air quality modeling results showing NAAQS violations available to the EPA for any area in Kansas. In addition, there are no air quality monitoring data that currently indicate any violation of the 1-hour SO_2 NAAQS. The EPA is designating the counties in Table 11 in the state as "attainment/unclassifiable" since these areas were not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS.

Table 11. Summary of the EPA's Final Designations and the Designation Recommendations by Kansas

County	Kansas' Recommended Area Definition	Kansas' Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Allen	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Anderson	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Atchison	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Barber	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Barton	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Bourbon	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Brown	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Butler	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Chase	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Chautauqua	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Cherokee	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Cheyenne	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Clark	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Clay	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Cloud	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Coffey	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Comanche	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Cowley	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Crawford	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Decatur	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Dickinson	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable

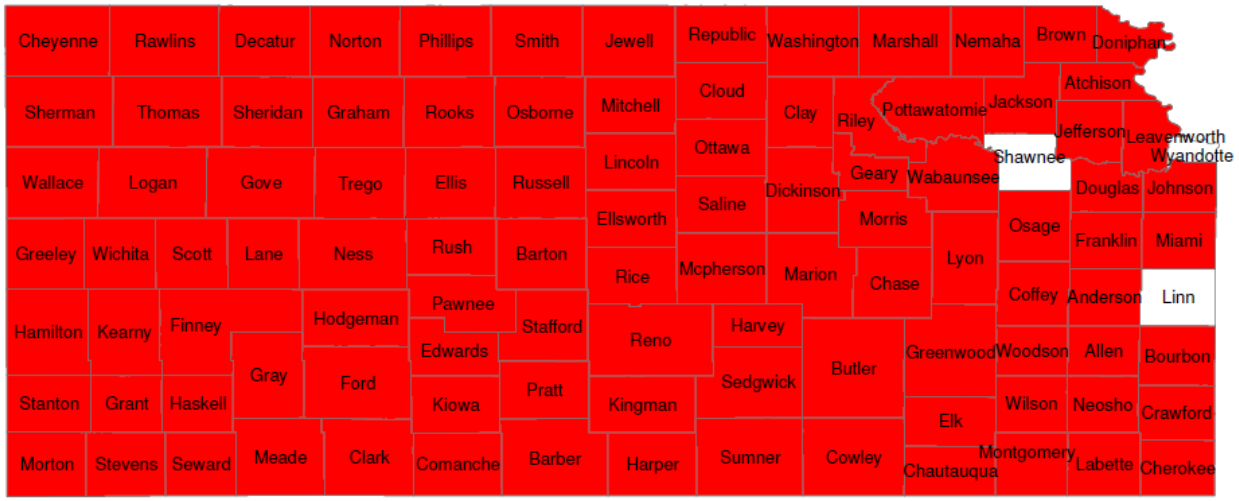
County	Kansas' Recommended Area Definition	Kansas' Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Doniphan	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Douglas	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Edwards	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Elk	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Ellis	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Ellsworth	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Finney	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Ford	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Franklin	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Geary	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Gove	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Graham	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Grant	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Gray	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Greeley	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Greenwood	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Hamilton	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Harper	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Harvey	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Haskell	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Hodgeman	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Jackson	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Jefferson	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable

County	Kansas' Recommended Area Definition	Kansas' Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Jewell	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Johnson	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Kearny	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Kingman	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Kiowa	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Labette	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Lane	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Leavenworth	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Lincoln	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Logan	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Lyon	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Marion	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Marshall	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
McPherson	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Meade	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Miami	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Mitchell	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Montgomery	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Morris	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Morton	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Nemaha	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Neosho	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Ness	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable

County	Kansas' Recommended Area Definition	Kansas' Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Norton	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Osage	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Osborne	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Ottawa	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Pawnee	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Phillips	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Pottawatomie	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Pratt	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Rawlins	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Reno	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Republic	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Rice	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Riley	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Rooks	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Rush	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Russell	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Saline	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Scott	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Sedgwick	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Seward	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Sheridan	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Sherman	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Smith	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable

County	Kansas' Recommended Area Definition	Kansas' Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Stafford	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Stanton	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Stevens	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Sumner	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Thomas	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Trego	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Wabaunsee	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Wallace	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Washington	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Wichita	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Wilson	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable
Woodson	Unclassifiable	Entire county	Unclassifiable / Attainment	Same as state's recommendation	Attainment/ Unclassifiable

Figure 8. The EPA's Final Attainment/Unclassifiable Designations for Remaining Counties in Kansas



Areas that the EPA previously designated unclassifiable in Round 1 (*see* 78 FR 47191) and Round 2 (*see* 81 FR 45039 and 81 FR 89870) are not affected by the designations in Round 3 unless otherwise noted. As noted above, the EPA designated Wyandotte County and Shawnee County as unclassifiable and Linn County as unclassifiable/attainment in Round 2. In the January 12, 2017, submittal, Kansas requested that the EPA redesignate Wyandotte County and Shawnee County from unclassifiable to unclassifiable/attainment. The EPA will evaluate this request in a separate action, and is not addressing it here.

Our final attainment/unclassifiable areas, bounded by the boundaries of each county listed in Table 11, will have clearly defined legal boundaries, and we find these boundaries to be a suitable basis for defining our final attainment/unclassifiable area.

10. Massachusetts

This section addresses designations for all areas in Massachusetts for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[26] No part of Massachusetts was designated in these previous final actions. The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[27] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of the Round 3 designations, the only remaining undesignated areas will be those where a state began operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 DRR. The EPA is required to designate those remaining undesignated areas by December 31, 2020. Massachusetts has no undesignated areas after Round 3.

Massachusetts submitted its first recommendation regarding designations for the 2010 1-hour SO_2 NAAQS on June 2, 2011. In our final designations, we have fully considered the submission from the state.

Massachusetts does not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

10.1. Air Quality Monitoring Data for All Massachusetts Counties

The following Air Quality System (AQS) monitors located in Massachusetts have sufficient valid data for 2014-2065 and these data indicate that there was no violation of the 2010 SO_2 NAAQS at these monitoring sites in that period. While these data were available to the EPA for consideration in the designation process, the EPA does not have information indicating that any of the existing monitors are located in an area of maximum concentration around specific SO_2 sources.

[26] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[27] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).

- AQS monitor 25-005-1004. The Fall River monitor is located at 356 Globe Street, Fall River, Massachusetts, in Bristol County. Data collected at this monitor indicates that the monitored SO_2 design value for the period from 2014 to 2016 is 10 ppb.
- AQS monitor 25-015-4002. The Ware monitor is located at Quabbin Summit, Ware, Massachusetts, in Hampshire County. Data collected at this monitor indicates that the monitored SO_2 design value for the period from 2014 to 2016 is 4 ppb.
- AQS monitor 25-025-0002. The Kenmore Square monitor is located at Kenmore Square, Boston, Massachusetts, in Suffolk County. Data collected at this monitor indicates that the monitored SO_2 design value for the period from 2014 to 2016 is 6 ppb.
- AQS monitor 25-025-0042. The Boston – Harrison Avenue monitor is located at Harrison Avenue, Boston, Massachusetts, in Suffolk County. Data collected at this monitor indicates that the monitored SO_2 design value for the period from 2014 to 2016 is 9 ppb.
- AQS monitor 25-027-0023. The Worcester – Summer Street monitor is located at Summer Street, Worcester, Massachusetts, in Worcester County. Data collected at this monitor indicates that the monitored SO_2 design value for the period from 2014 to 2016 is 6 ppb.

The Springfield Liberty Street monitor (AQS monitor 25-013-0016) is located at Liberty Street, Springfield, Massachusetts, in Hampden County. Data collected at this monitor is not sufficiently complete to provide a valid SO_2 design value for the period from 2014 to 2016. The invalid design value is 4 ppb. In the period 2013-2015, this monitor provided a valid design value of 8 ppb.

Air quality monitoring data discussed in this section can be found at https://www.epa.gov/air-trends/air-quality-design-values.

10.2. Other Information Relevant to the EPA's Final Designations in Massachusetts

As part of our ongoing Risk and Exposure Assessment (REA) for the current SO_2 NAAQS Review, the EPA has conducted modeling of several areas using historical emissions data. The area around Fall River, Massachusetts, near the Brayton Point generating station was one of the areas selected for this analysis, and the EPA conducted modeling for this area for the 2011-2013 period. This modeling analysis indicated the presence of a possible violation of the 2010 1-hour SO_2 NAAQS during the 2011-2013 period due to emissions from Brayton Point. Additional information about the Brayton Point modeling are provided in the REA document. SO_2 emissions from Brayton Point in 2011 were 18,648 tons, but declined to 7,606 by 2013. In 2013, Dominion Energy, which owns Brayton Point, entered into a consent decree with the EPA, and 2014 was the first year during which SO_2 controls were required to be continuously operated at the facility. SO_2 emissions dropped to 1,603 tons in 2014, 1,446 tons in 2015, and 875 tons in 2016. Because annual emissions from Brayton Point have been below 2,000 tons since 2014, and because the state planned to address emissions from Brayton Point in its SO_2 transport State Implementation Plan, neither the state nor the EPA included the facility as an applicable source

under the SO_2 DRR. Therefore, the state was not required to characterize SO_2 air quality for this area for the DRR.

As indicated previously, SO_2 monitoring data for this area do not indicate a current violation of the NAAQS, and show that ambient SO_2 levels have declined markedly with the continuous operation of the SO_2 controls. Because the facility's emissions characteristics changed dramatically since 2014, the EPA concludes that the modeling assessment for this area for 2011-2013 is not representative of current levels, and is therefore not relevant for designating the area. Instead, the EPA is designating the area around Brayton Point in a manner consistent with all other areas of the country with no DRR sources, no current air quality modeling information, and for which there are no air quality monitoring data that currently indicate any violation of the 1-hour SO_2 NAAQS. Additionally, of relevance is the fact that as of June 1, 2017, the facility has ceased operations and terminated its agreements with the local ISO to generate electricity. Since that date, the EPA has been notified that the facility has permanently retired or decommissioned all permitted SO_2 emitting units. The state has revoked its Operating Permit along with all associated permit approvals or modifications.

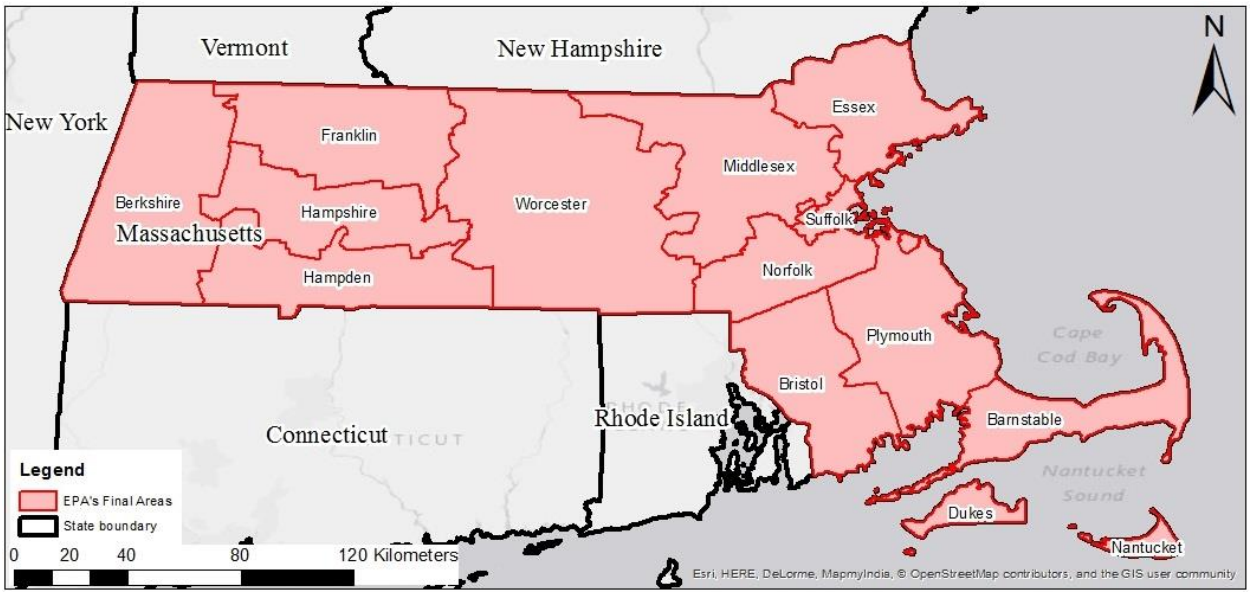
10.3. Summary of Our Final Designations for Massachusetts

For the areas in Massachusetts that are part of the Round 3 designations process, Table 12 and Figure 9 identify the EPA's final designations and the counties or portions of counties to which they apply. It also lists Massachusetts's current recommendations. The state has not installed and begun timely operation of a new, approved SO_2 monitoring network meeting EPA specifications referenced in the EPA's DRR for any sources of SO_2 emissions in the counties identified in Table 12. Accordingly, the EPA must designate these counties by December 31, 2017. At this time, there are no air quality modeling results regarding current air quality available to the EPA for these counties. In addition, there is no air quality monitoring data that indicate any violation of the 1-hour SO_2 NAAQS. The EPA is designating the counties in Table 12 in the state as "attainment/unclassifiable" since these areas were not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS.

Table 12. Summary of the EPA's Final Designations and the Designation Recommendation by Massachusetts

County	Massachusetts's Recommended Area Definition	Massachusetts's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Barnstable County	All of Massachusetts	Unclassifiable	Unclassifiable/ Attainment	Barnstable County	Attainment/ Unclassifiable
Berkshire County			Unclassifiable/ Attainment	Berkshire County	Attainment/ Unclassifiable
Bristol County			Unclassifiable/ Attainment	Bristol County	Attainment/ Unclassifiable
Dukes County			Unclassifiable/ Attainment	Dukes County	Attainment/ Unclassifiable
Essex County			Unclassifiable/ Attainment	Essex County	Attainment/ Unclassifiable
Franklin County			Unclassifiable/ Attainment	Franklin County	Attainment/ Unclassifiable
Hampden County			Unclassifiable/ Attainment	Hampden County	Attainment/ Unclassifiable
Hampshire County			Unclassifiable/ Attainment	Hampshire County	Attainment/ Unclassifiable
Middlesex County			Unclassifiable/ Attainment	Middlesex County	Attainment/ Unclassifiable
Nantucket County			Unclassifiable/ Attainment	Nantucket County	Attainment/ Unclassifiable
Norfolk County			Unclassifiable/ Attainment	Norfolk County	Attainment/ Unclassifiable
Plymouth County			Unclassifiable/ Attainment	Plymouth County	Attainment/ Unclassifiable
Suffolk County			Unclassifiable/ Attainment	Suffolk County	Attainment/ Unclassifiable
Worcester County			Unclassifiable/ Attainment	Worcester County	Attainment/ Unclassifiable

Figure 9. The EPA's Final Attainment/Unclassifiable Designations for All Massachusetts Counties



The source of this map image is Esri, used by the EPA with Esri's permission.

The EPA is designating each Massachusetts county as a separate attainment/unclassifiable area for the 2010 SO_2 NAAQS. Specifically, the boundaries are comprised of the jurisdictional boundaries of Barnstable, Berkshire, Bristol, Dukes, Essex, Franklin, Hampden, Hampshire, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester Counties, Massachusetts.

Figure 9 above shows the location of these areas within Massachusetts. For all counties in Massachusetts, the boundary of the attainment/unclassifiable area is the county boundary.

11. New Jersey

This section addresses designations for all areas in New Jersey for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[28] No part of New Jersey was designated in these previous final actions. The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[29] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of the Round 3 designations, the only remaining undesignated areas will be those where a state began operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 DRR. The EPA is required to designate those remaining undesignated areas by December 31, 2020. New Jersey has no undesignated areas after Round 3.

No areas in New Jersey have been designated in prior rounds. On June 23, 2011, New Jersey submitted its first recommendation regarding designations for the 2010 1-hour SO_2 NAAQS. This recommendation was that Warren County and certain indicated portions of Hunterdon, Morris, and Sussex counties be designated nonattainment and that the remainder of the state be designated unclassifiable. On January 9, 2017, the State updated its analysis of emissions and ambient monitoring data and its designation recommendations. The new recommendations were that the entire state be designated a single attainment area. On March 23, 2017, New Jersey provided supplemental information concerning the continued operation of a facility, one not subject to DRR requirements, that has been expected to shut down during 2017. In our final designations, we have considered all the submissions from the state, except where a recommendation in a later submission regarding a particular area indicates that it replaces an earlier recommendation for that area we have considered the recommendation in the later submission.

New Jersey does not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

11.1. Air Quality Monitoring Data for New Jersey

SO_2 data collected between 2014 and 2016 for the monitors listed in Table 13 below are available in the EPA's Air Quality System (AQS) database,[30] are certified, and meet data completeness requirements outlined in 40 CFR 50 Appendix T. Design values for this period at these sites were below the NAAQS, as shown in Table 13. While these data were available to EPA for consideration in the designation process, EPA does not have information indicating that any of the existing monitors are located in an area of maximum concentration around specific SO_2 sources. Air quality monitoring data discussed in this section can be found at https://www.epa.gov/air-trends/air-quality-design-values..

[28] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[29] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).
[30] https://www.epa.gov/aqs.

Table 13. Air Quality Data for New Jersey

County	Monitor Name	Monitor Location	AQS ID	2014- 2016 SO_2 Design Value (ppb)
Atlantic	Brigantine	Edwin B. Forsythe National Wildlife Refuge Visitor Center, Great Creek Road, Oceanville, NJ	340010006	6
Camden	Camden Spruce Street	266 Spruce Street, Camden, NJ	340070002	12
Essex	Newark Firehouse	360 Clinton Avenue, Newark, NJ	340130003	6
Hudson	Jersey City	2828 Kennedy Boulevard, Jersey City, NJ	340171002	6
Morris	Chester	50 North Rd, Building #1, Department of Public Works (DPW) off Route 513, Chester, NJ	340273001	8
Union	Elizabeth	7 Broad Street, Elizabeth, NJ	340390003	5
Union	Elizabeth Lab	Interchange 13, New Jersey Turnpike, Elizabeth, NJ	340390004	12
Warren	Columbia	Columbia Wildlife Management Area, 106 Delaware Ave, Knowlton Township, NJ	340410007	30

11.2. Other Information Relevant to the EPA's Final Designations in New Jersey

The state of New York submitted a modeling analysis for the area around five power plants in the New York City area. The receptor grid for the modeling included a portion of New Jersey. The modeling did not predict any SO_2 NAAQS violations, and the EPA considers this modeling result to be reliable. *See* Chapter 29 of this TSD for additional details on this modeling by New York.

The state of Pennsylvania submitted a modeling analysis for a cluster of DRR-subject sources in Lehigh County and Northampton County, Pennsylvania. The receptor grids for these modeling analyses included portions of New Jersey. The modeling did not predict any SO_2 NAAQS violations. However, the EPA finds that the collective modeling analysis that Pennsylvania performed for the Lehigh and Northampton source cluster is not sufficient to determine whether the area in Pennsylvania near the sources is attaining or not attaining the 2010 1-hour SO_2 NAAQS. While the receptor grid for this analysis included portions of New Jersey, the EPA does not consider those portions of New Jersey to be areas required to be characterized under the DRR, and thus a designation of attainment/unclassifiable is appropriate provided there is no information to suggest that these portions of New Jersey violate the NAAQS or contribute to air

quality in a nearby area that violates the NAAQS. The EPA does not have any such information. *See* Chapter 35 of this TSD for additional details on this modeling by Pennsylvania.

The state of Pennsylvania submitted a modeling analysis for a cluster of sources in Delaware and Philadelphia Counties, Pennsylvania. The modeling did not predict any SO_2 NAAQS violations, and the EPA considers this modeling result to be reliable. *See* Chapter 35 of this TSD for additional details on this modeling by Pennsylvania.

11.3. Summary of Our Final Designations for New Jersey

For the areas in New Jersey that are being designated in Round 3, Table 14 and Figure 10 identify the EPA's final designation of the entire state of New Jersey as a single attainment/unclassifiable area. It also lists New Jersey's current recommendation. The state has not installed and begun timely operation of a new, approved SO_2 monitoring network meeting EPA specifications referenced in the EPA's DRR for any sources of SO_2 emissions in the state. Accordingly, the EPA must designate all of the state by December 31, 2017. At this time, there are no air quality modeling results showing NAAQS violations available to the EPA for any area in New Jersey. In addition, there are no air quality monitoring data that currently indicate any violation of the 1-hour SO_2 NAAQS. The EPA is designating all of the state as "attainment/unclassifiable" since these areas were not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS.

Table 14. Summary of the EPA's Final Designation and the Designation Recommendation by New Jersey

New Jersey's Recommended Area Definition	New Jersey's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Entire State of New Jersey	Attainment	Unclassifiable /Attainment	Entire State of New Jersey (All counties)	Attainment/ Unclassifiable

Figure 10. The EPA's Final Attainment/Unclassifiable Designation for New Jersey

Our final single attainment/unclassifiable area, bounded by the boundaries of New Jersey as shown in Figure 10, will have clearly defined legal boundaries, and we find these boundaries to be a suitable basis for defining our final attainment/unclassifiable area.

12. Rhode Island

This section addresses designations for all areas in Rhode Island for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[31] No part of Rhode Island was designated in these previous final actions. The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[32] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of the Round 3 designations, the only remaining undesignated areas will be those where a state began operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 DRR. The EPA is required to designate those remaining undesignated areas by December 31, 2020. Rhode Island has no undesignated areas after Round 3.

Rhode Island submitted its recommendation recommending a statewide unclassifiable designation for the 2010 1-hour SO_2 NAAQS on May 18, 2011. In our final designations, we have fully considered the submission from the state.

Rhode Island does not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

12.1. Air Quality Monitoring Data for the State of Rhode Island

The following Air Quality System (AQS) monitors located in Rhode Island have sufficient valid data for 2014-2016 and these data indicate that there was no violation of the 2010 SO_2 NAAQS at these monitoring sites in that period. While these data were available to the EPA for consideration in the designation process, the EPA does not have information indicating that any of the existing monitors are located in an area of maximum concentration around specific SO_2 sources.

- AQS monitor 44-007-0012. The Brown University monitor is located at 10 Prospect Street, Providence, Rhode Island, in Providence County. Data collected at this monitor indicate that the monitored SO_2 design value for the period from 2014 to 2016 is 7 ppb.
- AQS monitor 44-007-1010. The Francis School monitor is located at 64 Bourne Avenue, East Providence, Rhode Island, in Providence County. Data collected at this monitor indicate that the monitored SO_2 design value for the period from 2013 to 2015 is 7 ppb. Air quality monitoring data discussed in this section can be found at https://www.epa.gov/air-trends/air-quality-design-values.

[31] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[32] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).

12.2. Summary of Our Final Designations for Rhode Island

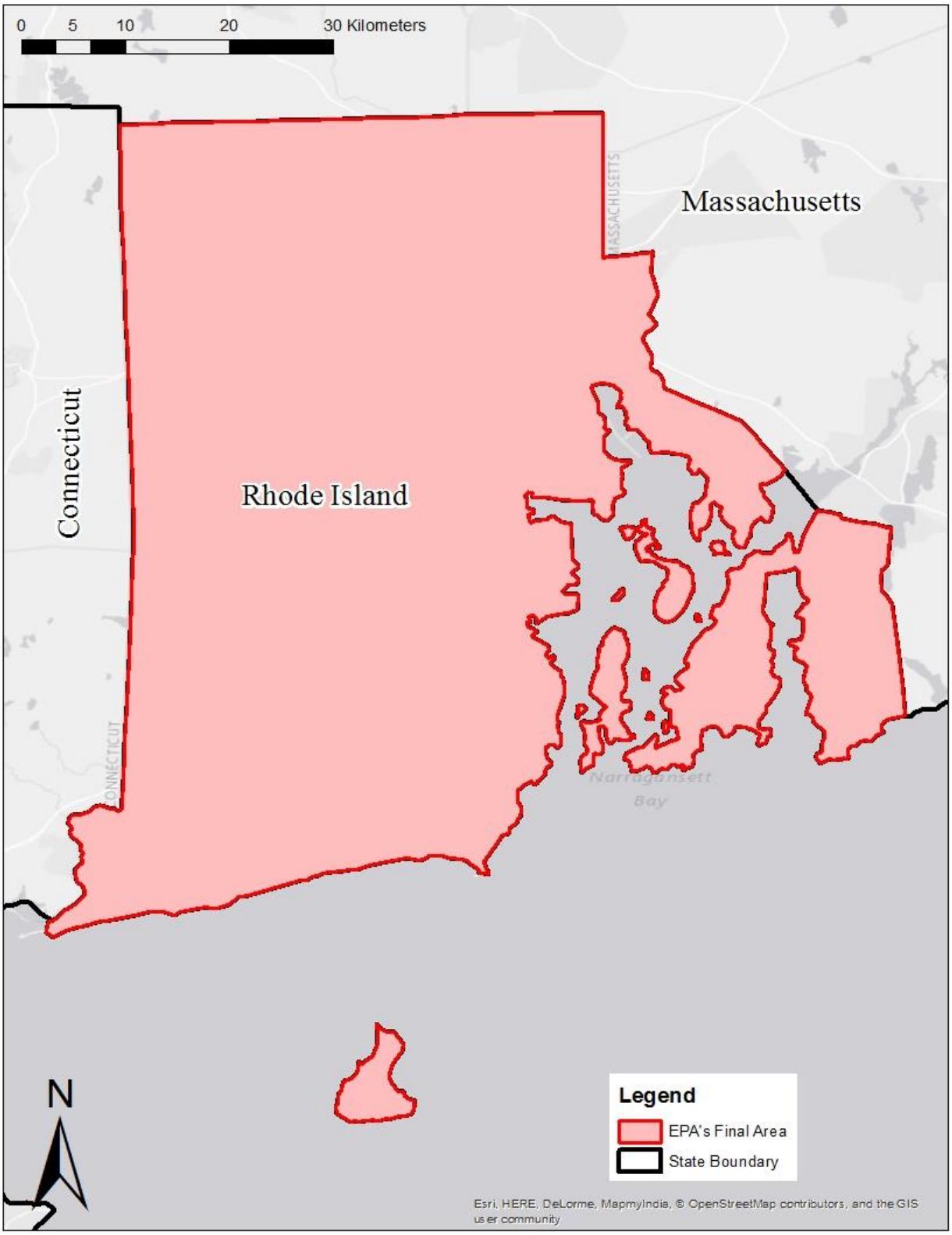
For the areas in Rhode Island that are being designated in Round 3, Table 15 and Figure 11 identify the EPA's final designation of the entire state as a single attainment/unclassifiable area. It also lists Rhode Island's current recommendation. The state has not installed and begun timely operation of a new, approved SO_2 monitoring network meeting EPA specifications referenced in the EPA's DRR for any sources of SO_2 emissions in the state. Accordingly, the EPA must designate all of the state by December 31, 2017. At this time, there are no air quality modeling results available to the EPA for any area in Rhode Island. In addition, there are no air quality monitoring data that currently indicate any violation of the 1-hour SO_2 NAAQS. The EPA is designating the entire state as "attainment/unclassifiable" since these areas were not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS.

Table 15. Summary of the EPA's Final Designation and the Designation Recommendation by Rhode Island

County/ Area	Rhode Island's Recommended Area Definition	Rhode Island's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Entire state of Rhode Island	Entire state of Rhode Island	Unclassifiable	Unclassifiable/ Attainment	Same as State's Recommendation	Attainment/ Unclassifiable

Table 15 also summarizes Rhode Island's recommendation. Specifically, the state recommended that the entire state of Rhode Island be designated as unclassifiable based on a lack of monitoring and modeling data to characterize areas around the state.

Figure 11. The EPA's Final Attainment/Unclassifiable Designation for the State of Rhode Island



The source of this map image is Esri, used by the EPA with Esri's permission.

The EPA is designating all of Rhode Island as a single attainment/unclassifiable area for the 2010 SO_2 NAAQS. Our final attainment/unclassifiable area, bounded by the jurisdictional boundary of the entire state of Rhode Island, will have a clearly defined legal boundary, and we find this boundary to be a suitable basis for defining our final attainment/unclassifiable area.

Figure 11 above shows the boundaries for the Rhode Island area.

13. South Dakota

This section addresses designations for all areas in South Dakota for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[33] Grant County in South Dakota was designated unclassifiable/attainment in Round 2. The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[34] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of the Round 3 designations, the only remaining undesignated areas will be those where a state began operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 DRR. The EPA is required to designate those remaining undesignated areas by December 31, 2020. South Dakota has no undesignated areas after Round 3.

South Dakota submitted its first recommendation regarding designations for the 2010 1-hour SO_2 NAAQS on June 2, 2011, in which the State recommended that the EPA designate every county in South Dakota as attainment based on all available monitoring data in the State. The state submitted updated air quality analysis and updated recommendations on September 16, 2015, in which the State again recommended attainment for all counties based on more updated available monitoring data. In our final designations, we have considered all the submissions from the state, except where a recommendation in a later submission regarding a particular area indicates that it completely replaces an earlier recommendation for that area we have considered the recommendation in the later submission.

South Dakota does not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

13.1. Air Quality Monitoring Data in the Rest of South Dakota Areas Not Yet Designated

AQS monitors located in Jackson (AQS ID 460710001), Minnehaha (AQS ID 460990008), Pennington (AQS ID 461030020) and Union (AQS ID 461270001) Counties in South Dakota have sufficient valid data for the 2014-2016 design value period, and these data indicate that there was no violation of the 2010 SO_2 NAAQS at the monitoring sites (nor a design value exceeding 6 ppb) in that period.[35] While these data were available to the EPA for consideration in the designation process, the EPA does not have information indicating that any of the existing monitors are located in an area of maximum concentration around specific SO_2 sources. Air quality monitoring data discussed in this section can be found at https://www.epa.gov/air-trends/air-quality-design-values.

[33] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[34] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).
[35] https://www.epa.gov/air-trends/air-quality-design-values.

13.2. Summary of Our Final Designations for South Dakota

For the areas in South Dakota that are part of the Round 3 designations process, Table 16 and Figure 12 identify the EPA's final designations and the counties or portions of counties to which they apply. These final designations are based on South Dakota's current recommendations, which are that the EPA designate each individual county in the state of South Dakota as attainment. The state has not installed and begun timely operation of a new, approved SO_2 monitoring network meeting EPA specifications referenced in the EPA's DRR for any sources of SO_2 emissions in the counties identified in Table 16. Accordingly, the EPA must designate these counties by December 31, 2017. At this time, there are no air quality modeling results available to the EPA for these counties. In addition, there is no air quality monitoring data that indicate any violation of the 1-hour SO_2 NAAQS. The EPA is designating the counties in Table 16 in the state as "attainment/unclassifiable" since these areas were not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS.

Table 16. Summary of the EPA's Final Designations and the Designation Recommendations by South Dakota

County	South Dakota's Recommended Area Definition	South Dakota's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Aurora	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Beadle	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Bennett	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Bon Homme	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Brookings	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Brown	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Brule	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Buffalo	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Butte	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Campbell	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Charles Mix	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable

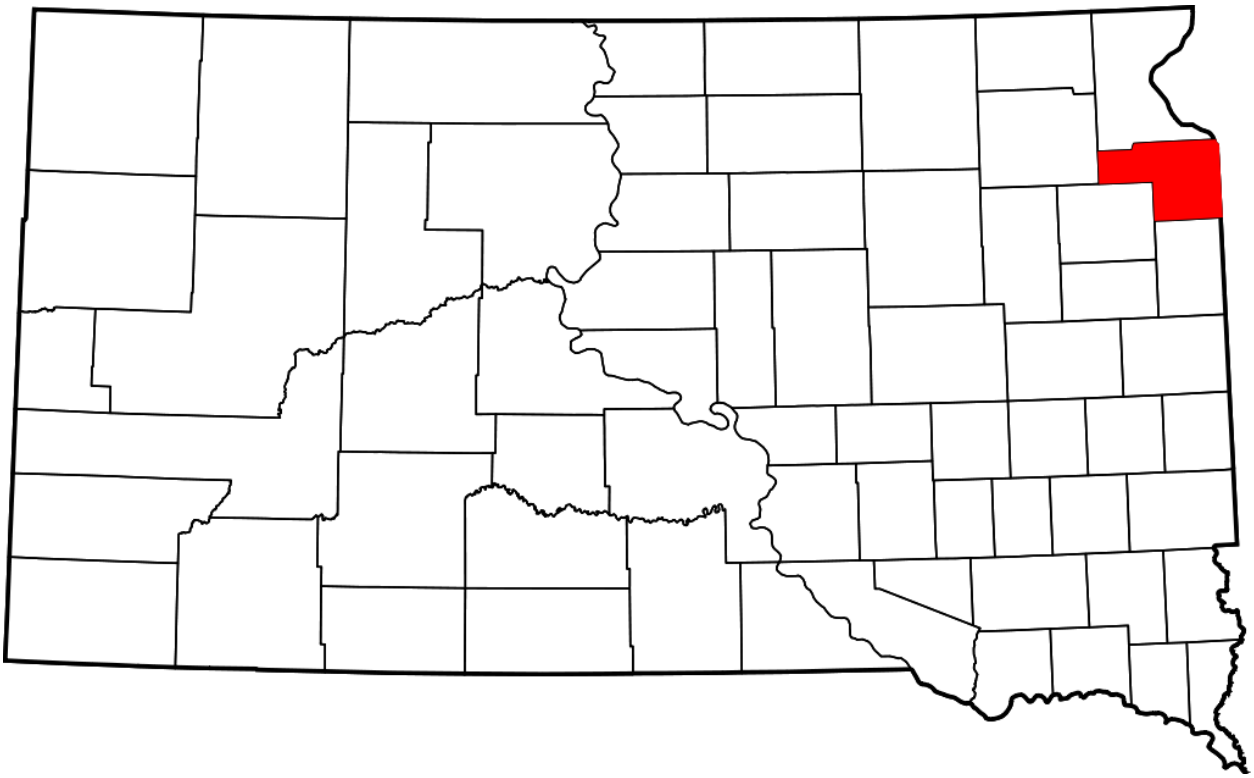
County	South Dakota's Recommended Area Definition	South Dakota's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Clark	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Clay	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Codington	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Corson	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Custer	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Davison	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Day	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Deuel	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Dewey	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Douglas	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Edmunds	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Fall River	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Faulk	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Gregory	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Haakon	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Hamlin	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Hand	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Hanson	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Harding	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Hughes	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Hutchinson	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Hyde	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable

County	South Dakota's Recommended Area Definition	South Dakota's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Jackson	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Jerauld	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Jones	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Kingsbury	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Lake	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Lawrence	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Lincoln	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Lyman	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
McCook	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
McPherson	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Marshall	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Meade	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Mellette	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Miner	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Minnehaha	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Moody	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Pennington	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Perkins	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Potter	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Roberts	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Sanborn	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Shannon	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable

County	South Dakota's Recommended Area Definition	South Dakota's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Spink	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Stanley	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Sully	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Todd	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Tripp	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Turner	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Union	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Walworth	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Yankton	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable
Ziebach	Full County	Attainment	Unclassifiable / Attainment	Same as State's Recommendation	Attainment/ Unclassifiable

Table 16 also summarizes South Dakota's recommendations for these areas. Specifically, the State recommended that every county in South Dakota be designated as attainment based on all SO_2 monitoring data showing no violations of the 1-hour SO_2 standard. After careful review of the state's assessment, supporting documentation, and all available data, the EPA is designating the areas as attainment/unclassifiable. Figure 12 shows the locations of these areas within South Dakota, which are shown below in white. The county in red is Grant County, which was designated unclassifiable/attainment in Round 2 (*see* 81 *Federal Register* 45039), and is not affected by this action.

Figure 12. The EPA's Final Attainment/Unclassifiable Designations for Counties in South Dakota



After careful evaluation of the state's recommendation and supporting information, as well as all available relevant information, the EPA is designating the areas in the above Table 16 as attainment/unclassifiable for the 2010 SO_2 NAAQS.

Our final attainment/unclassifiable areas, bounded by the county borders shown in Figure 12, will have clearly defined legal boundaries, and we find these boundaries to be a suitable basis for defining our final attainment/unclassifiable area. There will be no remaining undesignated areas in the state for this NAAQS following the final designations described in this document.

After careful evaluation of the state's recommendation and supporting information, as well as all available relevant information, the EPA is designating all undesignated counties in South Dakota as attainment/unclassifiable for the 2010 SO_2 NAAQS. Specifically, the boundaries are comprised of each county's boundary as shown in Figure 12.

14. Vermont

This section addresses designations for all areas in Vermont for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[36] No part of Vermont was designated in these previous final actions. The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[37] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of the Round 3 designations, the only remaining undesignated areas will be those where a state began operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 DRR. The EPA is required to designate those remaining undesignated areas by December 31, 2020. Vermont has no undesignated areas after Round 3.

Vermont submitted its recommendation for a statewide designation of unclassifiable/attainment for the 2010 1-hour SO_2 NAAQS on April 21, 2017. In our final designations, we have fully considered the submission from the state.

Vermont does not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

14.1. Air Quality Monitoring Data for All Vermont Counties

The following Air Quality System (AQS) monitor located in Vermont has sufficient valid data for 2014-2016 and these data indicate that there was no violation of the 2010 SO_2 NAAQS at these monitoring sites in that period. While these data were available to the EPA for consideration in the designation process, the EPA does not have information indicating that any of the existing monitors are located in an area of maximum concentration around specific SO_2 sources.

- AQS monitor 50-021-0002. The Rutland monitor is located adjacent to 9 Merchant's Row, Rutland, Vermont, in Rutland County. Data collected at this monitor indicates that the monitored SO_2 design value for the period from 2014 to 2016 is 2 ppb.

Air quality monitoring data discussed in this section can be found at https://www.epa.gov/air-trends/air-quality-design-values.

14.2. Summary of Our Final Designations for Vermont

For the areas in Vermont that are being designated in Round 3, Table 17 and Figure 13 identify the EPA's final designations and the counties or portions of counties to which they apply. It also lists Vermont's current recommendations. The state has not installed and begun timely operation

[36] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[37] *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).

of a new, approved SO_2 monitoring network meeting EPA specifications referenced in the EPA's DRR for any sources of SO_2 emissions in the counties identified in Table 17. Accordingly, the EPA must designate these counties by December 31, 2017. At this time, there are no air quality modeling results available to the EPA for these counties. In addition, there are no air quality monitoring data that currently indicate any violation of the 1-hour SO_2 NAAQS. The EPA is designating the counties in Table 17 in the state as "attainment/unclassifiable" since these areas were not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS.

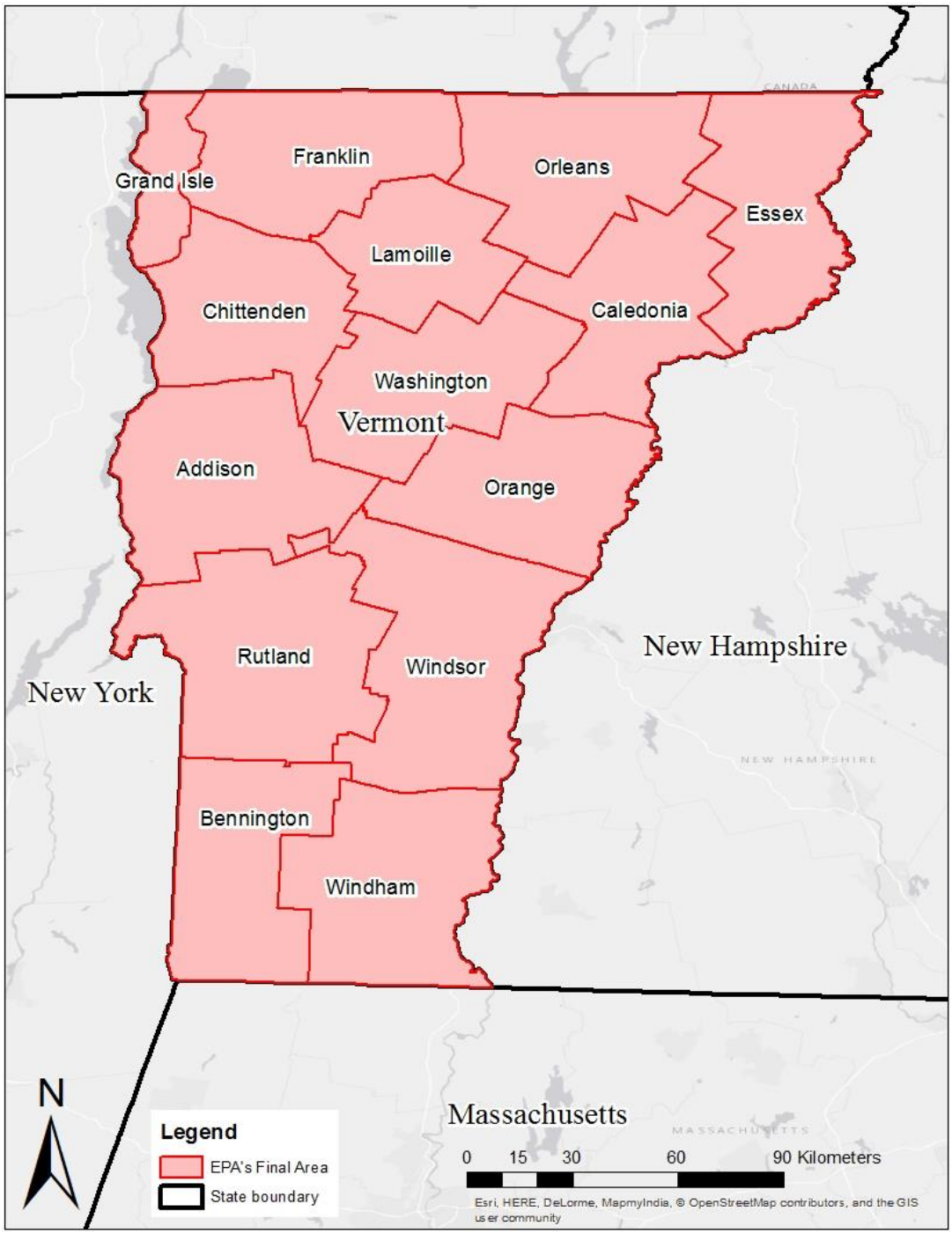
Table 17. Summary of the EPA's Final Designations and the Designation Recommendations by Vermont

County	Vermont's Recommended Area Definition	Vermont's Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
Addison	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable
Bennington	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable
Caledonia	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable
Chittenden	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable
Essex	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable
Franklin	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable
Grand Isle	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable
Lamoille	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable
Orange	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable
Orleans	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable
Rutland	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable
Washington	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable
Windham	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable
Windsor	Entire county	Unclassifiable/ Attainment	Unclassifiable/ Attainment	Entire county	Attainment/ Unclassifiable

Table 17 also summarizes Vermont's recommendations for these areas. Specifically, the state recommended that the entire state of Vermont be designated on a county-by-county basis as

unclassifiable/attainment based on a lack of monitoring and modeling data showing violations of the NAAQS. After careful review of the state's assessment, supporting documentation, and all available data, the EPA is designating the areas as attainment/unclassifiable. Figure 13 shows the locations of these areas within Vermont.

Figure 13. The EPA's Final Attainment/Unclassifiable Designations for All Vermont Counties



The source of this map image is Esri, used by the EPA with Esri's permission.

The EPA is designating each Vermont county as attainment/unclassifiable for the 2010 SO_2 NAAQS. Specifically, the boundaries are comprised of the jurisdictional boundaries of Addison, Bennington, Caledonia, Chittenden, Essex, Franklin, Grand Isle, Lamoille, Orange, Orleans, Rutland, Washington, Windham, and Windsor Counties, Vermont. Our attainment/unclassifiable areas will have clearly defined legal boundaries, and we find these boundaries to be a suitable basis for defining our final attainment/unclassifiable areas.

Figure 13 above shows the location of these areas within Vermont. For all counties in Vermont, the boundary of the attainment/unclassifiable area is the county boundary.

15. Virgin Islands

This section addresses designations for all areas in the Virgin Islands for the 2010 SO_2 NAAQS. In previous final actions, the EPA issued designations for the 2010 SO_2 NAAQS for selected areas of the country.[38] No part of the Virgin Islands was designated in these previous final actions. The EPA is complying with a December 31, 2017, deadline to designate the areas addressed in this section as required by the U.S. District Court for the Northern District of California.[39] We are referring to the set of designations being finalized by the December 31, 2017, deadline as "Round 3" of the designations process for the 2010 SO_2 NAAQS. With the completion of the Round 3 designations, the only remaining undesignated areas will be those where a state began operation of a new SO_2 monitoring network meeting EPA specifications referenced in the EPA's SO_2 DRR. The EPA is required to designate those remaining undesignated areas by December 31, 2020. The Virgin Islands has no undesignated areas after Round 3.

On May 20, 2011, the Virgin Islands submitted its first recommendation regarding designations for the 2010 1-hour SO_2 NAAQS. This recommendation was that the islands of St. Thomas, St. John, and Water Island be designated as an attainment area, and that the island of St. Croix be designated as a nonattainment area. On December 23, 2011, the territory updated its analysis of available air quality monitoring data, noted that the monitor that had previously indicated a violation was no longer violating the NAAQS, and indicated that a revised recommendation would be submitted. The territory also referred to expected SO_2 emission reductions as a result of a Consent Decree for Hovensa LLC in St. Croix, which had been filed on January 26, 2011 (Case: 1:11-cv-00006). On March 15, 2012, the territory provided updated information on air quality data and a revised designation recommendation that St. Croix be designated unclassifiable. In our final designations, we have considered all the submissions from the territory, except where a recommendation in a later submission regarding a particular area indicates that it replaces an earlier recommendation for that area we have considered the recommendation in the later submission.

The Virgin Islands do not have any sources of SO_2 emissions for which it is required under the EPA's SO_2 Data Requirements Rule (40 CFR 51.1203(c) or (d)) to characterize SO_2 air quality.

15.1. Air Quality Monitoring Data for the Virgin Islands

There are currently no regulatory ambient SO_2 monitors in the Virgin Islands. Regulatory ambient SO_2 monitoring was previously operated by HOVENSA L.L.C (Hovensa) in St. Croix. The EPA notes that the most recent valid design values for the St. Croix monitors was for 2010-2012 and that these design values were all below the NAAQS. Monitoring was discontinued when the Hovensa refinery discontinued operations. The Virgin Islands based their recommendation primarily on 2008-2010 and 2009-2011 St. Croix air monitoring data, which

[38] A total of 94 areas throughout the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), and December 13, 2016 (81 FR 89870).
[39] *Sierra Club v. McCarthy,* No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).

showed attainment of the SO_2 NAAQS. Air quality monitoring data discussed in this section can be found at https://www.epa.gov/air-trends/air-quality-design-values.[40]

15.2. Other Information Relevant to the Designations for the Virgin Islands

Previous designations for the Virgin Islands have either designated all of the Virgin Islands as "Statewide," "Whole State," or "State of Virgin Islands" without designating individual islands (e.g., Carbon Monoxide, Ozone (1-Hour), 2010 NO_2, 1997 8-Hour Ozone, and 2008 Lead NAAQS). Other previous designations have listed designations by the three larger islands (e.g., St. Croix, St. John, and St. Thomas) as separate areas (*e.g.*, the 1997 and 2012 Annual $PM_{2.5}$ NAAQS, and the 1997 and 2006 24-hour $PM_{2.5}$ NAAQS).[41] The EPA has not previously provided a separate designation for Water Island.

15.3. Summary of Our Final Designations for the Virgin Islands

Table 18 and Figure 14 identify the EPA's final designation for the Virgin Islands. In Figure 14, the EPA's final designated attainment/unclassifiable areas are shown in green. It also lists the Virgin Islands' current recommendations. Specifically, the Virgin Islands recommended that the islands of St. Thomas, St. John, and Water Island be designated as attainment, and the island of St. Croix be designated as unclassifiable based on past air monitoring data.

The territory has not installed and begun timely operation of a new, approved SO_2 monitoring network meeting EPA specifications referenced in the EPA's DRR for any sources of SO_2 emissions in the areas identified in Table 18. Accordingly, the EPA must designate these areas by December 31, 2017. At this time, there are no air quality modeling results available to the EPA for these areas. In addition, there are no air quality monitoring data that currently indicate any violation of the 1-hour SO_2 NAAQS. The EPA is designating the areas in Table 18 in the territory as "attainment/unclassifiable" since these areas were not required to be characterized under 40 CFR 51.1203(c) or (d) and for which available information does not indicate that the area violates the NAAQS or contributes to ambient air quality in a nearby area that does not meet the NAAQS.

[40] *See* the sheet titled "Table 6a. Monitoring Site Design Value History Site level for Sulfur Dioxide Annual NAAQS for 2007 through 2016." The Virgin Islands monitors have AQS IDs starting with "78" and appear at the end of this sheet.
[41] 40 CFR 81.356 – Virgin Islands.

Table 18. Summary of the EPA's Final Designations and the Designation Recommendations by the Virgin Islands

Virgin Islands Recommended Area Definition	Virgin Islands Recommended Designation	EPA's Intended Designation	EPA's Final Area Definition	EPA's Final Designation
St. Thomas Island	Attainment	Unclassifiable/ Attainment	All of the Virgin Islands	Attainment/ Unclassifiable
St. John Island	Attainment	Unclassifiable/ Attainment	All of the Virgin Islands	Attainment/ Unclassifiable
Water Island	Attainment	Unclassifiable/ Attainment	All of the Virgin Islands	Attainment/ Unclassifiable
St. Croix Island	Unclassifiable	Unclassifiable/ Attainment	All of the Virgin Islands	Attainment/ Unclassifiable
Remaining areas	No recommendation	Unclassifiable/ Attainment	All of the Virgin Islands	Attainment/ Unclassifiable

Figure 14. The EPA's Final Attainment/Unclassifiable Designation for the Virgin Islands

After careful evaluation of all available relevant information, the EPA is designating all of the Virgin Islands as a single attainment/unclassifiable area for the 2010 SO_2 NAAQS. Our final attainment/unclassifiable area has clearly defined legal boundaries, and we find these boundaries to be a suitable basis for defining our final attainment/unclassifiable area.

Figure 14 above shows the boundaries of the final Virgin Islands attainment/unclassifiable area.

16. Emission Limits and Shutdowns for Sources on the Data Requirements Rule Source List

The SO_2 Data Requirements Rule directed state air agencies to provide data to characterize current air quality in areas with sources of SO_2 emissions with certain characteristics, and to identify maximum 1-hour SO_2 concentrations in ambient air. (*See* 40 CFR Part 51 Subpart BB.) The final rule also established the characteristics for identifying the affected emissions sources and thus the associated areas for which air agencies are required to characterize SO_2 air quality. States could select from two options for this characterization, based on their preference, namely the use of monitoring or modeling. The DRR also provided a third option, under which state air agencies could establish a federally enforceable emissions limitation, effective by January 13, 2017, that limit emissions of a listed source to less than 2,000 tpy or provide documentation that the source has permanently shut down. This type of emissions limitation may be established in lieu of conducting monitoring or modeling to characterize air quality in the vicinity of a source.

Table 19 lists the 55 facilities for which states elected to establish, or to cite previously established, federally enforceable emissions limitations of less than 2,000 tpy or provide documentation of source shutdown.[42] Because the states were not required to characterize air quality around the sources listed in Table 19, the EPA is evaluating designations for these areas in the same manner as the remaining or "rest of state" areas that do not include sources that were listed under the DRR. These evaluations appear in each respective state's chapter or in this chapter.

Table 19: Sources for which States Established an Emissions Limit of less than 2,000 tpy or Provided Documentation of Shutdown Under the SO_2 Data Requirements Rule

State	Facility	County/ Parish	State Pathway
Alabama	Tennessee Valley Authority- Colbert Fossil Plant	Colbert	Limit
Alabama	Alabama Power - Gadsden Electric Generating Plant	Etowah	Limit
Alabama	Alabama Power - Greene County Electric Generating Plant	Greene	Limit
Alabama	Tennessee Valley Authority - Widows Creek Fossil Plant	Jackson	Shutdown
Colorado	Colorado Springs Utilities (CSU) - Martin Drake Power Plant	El Paso	Limit

[42] The EPA would like to clarify that sources listed here may not have taken a specific limit solely because of the SO_2 DRR. The DRR also did not require sources to shut down, but rather relieved states of the requirement to characterize air quality in the area around a source that the state could document had permanently shut down. The EPA understands states may have included certain sources on the DRR source list that had previously taken an enforceable limit or permanently shut down for other purposes. For example, the GenOn Rema LLC/Portland Generating Station was included on the DRR source list by Pennsylvania with documentation of a federally enforceable limit, which was the result of a CAA Section 126 finding promulgated in 2011 under 40 CFR §52.2039 and not due to the DRR.

State	Facility	County/ Parish	State Pathway
Colorado	CSU - Ray D Nixon	El Paso	Limit
Colorado	Colorado Energy Nations Company (CENC) – Golden	Jefferson	Limit
Florida	Gulf Power Company - Lansing Smith Generating Plant	Bay	Limit
Georgia	Georgia Power Company - Plant Kraft	Chatham	Shutdown
Georgia	Georgia Power Company - Plant Yates	Coweta	Limit
Georgia	Georgia Power Company - Plant Branch	Putnam	Shutdown
Illinois	DTE Tuscola LLC	Douglas	Limit
Illinois	Midwest Generation LLC- Joliet	Will	Limit
Iowa	IPL - Lansing Generating Station	Allamakee	Limit
Iowa	IPL - ML Kapp Generating Station	Clinton	Limit
Iowa	MidAmerican - Riverside Station	Scott	Limit
Kansas	Westar Energy - Tecumseh	Shawnee	Limit
Kentucky	Louisville Gas & Electric Co. - Cane Run Generating Station	Jefferson	Limit
Kentucky	Big Sandy Power Plant - Kentucky Power Company	Lawrence	Limit
Kentucky	Green River Station - Kentucky Utilities Company	Muhlenberg	Shutdown
Kentucky	Cooper Power Station - East Kentucky Power Cooperative	Pulaski	Limit
Louisiana	AA Sulfuric Corp - Sulfuric Acid Plant	Ascension	Limit
Michigan	B.C. Cobb Generating Station	Muskegon	Shutdown
Mississippi	Plant Jack Watson - Mississippi Power Company	Harrison	Limit
Mississippi	The Chemours Company FC, LLC (Formerly DuPont-Delisle)	Harrison	Limit
Mississippi	Thomasville Gas Plant - Pursue Energy Corporation	Rankin	Shutdown
Missouri	University of Missouri - Columbia Power Plant	Boone	Limit
Missouri	Independence Power & Light - Blue Valley Station	Jackson	Limit
Missouri	BASF Corporation - Hannibal Plant	Marion	Limit
Missouri	Anheuser Busch Inc. - St. Louis	St. Louis City	Limit
Missouri	Mississippi Lime Company - Ste. Genevieve	Ste. Genevieve	Limit
Ohio	The Medical Center	Cuyahoga	Limit
Ohio	P.H. Glatfelter	Ross	Limit
Ohio	City of Orrville DPU	Wayne	Limit
Ohio	Morton Salt Inc.	Wayne	Limit
Oklahoma	Holcim - ADA Plant	Pontotoc	Limit

State	Facility	County/ Parish	State Pathway
Pennsylvania	Team Ten/Tyrone Paper Mill	Blair	Limit
Pennsylvania	NRG Rema LLC/Shawville Gen Station	Clearfield	Limit[43]
Pennsylvania	NRG Power Midwest Lp/New Castle Power Plant	Lawrence	Limit[44]
Pennsylvania	Genon Rema LLC/Portland Generating Station	Northampton	Limit[45]
South Carolina	W.S. Lee Steam Station - Duke Energy Carolinas, LLC	Anderson	Limit
South Carolina	WestRock CP (Formerly RockTenn CP LLC)	Florence	Limit
South Carolina	McMeekin Station - South Carolina Electric & Gas(SCE&G)	Lexington	Limit
Tennessee	Cargill Corn Milling, Inc.	Shelby	Limit
Utah	PacifiCorp - Carbon Power Plant	Carbon	Shutdown
Virginia	Dominion - Chesapeake Energy Center	Chesapeake City	Limit
Virginia	Celanese Acetate LLC	Giles	Limit
Virginia	Radford Army Ammunition Plant	Montgomery	Limit
Virginia	American Electric Power-Clinch River Plant	Russell	Limit
West Virginia	Appalachian Power Company - Kanawha River Plant	Kanawha	Shutdown
West Virginia	American Bituminous Power-Grant Town Plant	Marion	Limit
West Virginia	Appalachian Power Co.-Philip Sporn Plant	Mason	Shutdown
Wisconsin	Georgia-Pacific Consumer Products LP	Brown	Limit
Wisconsin	WPL - Nelson Dewey Generating Station	Grant	Limit
Wisconsin	Catalyst Paper - Biron Mill	Wood	Limit

[43]Pennsylvania listed Shawville Generating Station and New Castle Power Plant as establishing an emission limit under 2,000 tpy as a DRR pathway. Pennsylvania modeled both sources to determine an emission limit, however, the limits were not under 2,000 tpy. Therefore, these sources were evaluated as modeled sources (see Pennsylvania's Chapter 35 of the TSD).

[44] *See* the immediately previous footnote.

[45] *See* footnote 42.