Responses to Comments on the EPA's Intended Round 3 Designations for the 2010 Sulfur Dioxide Primary National Ambient Air Quality Standard (NAAQS)

Docket Number EPA–HQ–OAR–2017-0003

U.S. Environmental Protection Agency
December 20, 2017

Table of Contents

1. Introduction

This Response to Comments (RTC) document, together with the *Federal Register* preamble to the final designations action and the Technical Support Document (TSD) for the final designations presents the responses of the U.S. Environmental Protection Agency (EPA) to the significant and timely public and state/territory/tribal comments we received on our intended designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard (NAAQS). Additionally, the chapters and sections of the TSD for our intended designations, unless otherwise noted in the TSD for the final designations, are incorporated as part of the basis for the final designations.

The public comment period for the EPA's intended designations ended on October 5, 2017. States, territories, and tribes were requested to submit their comments by no later than October 23, 2017. Most comments from states, territories, and tribes were sent to the respective EPA Regional Office after October 5, 2017, and were placed in the public docket by EPA staff.

The responses presented in this document are intended to either augment the responses to comments that appear in the preamble to the final action and the TSD, or to address comments not discussed in those documents. Where a comment is fully addressed in the TSD for the final designations, this document indicates that.

2. Background

The *Federal Register* notice for these final designations, and Sections 1 and 2 of Chapter 1 of the TSD for the final designations, both provide the background for these final designations.

3. General Comments and State/Territory/Tribe-Specific Comments Relevant to Multiple Designations

3.1. Use of AERMOIST

Comment

The Group Against Smog and Air Pollution (GASP) notes that NRG and AECOM used a new approach for plume rise known as AERMOIST. GASP agrees with the position in EPA's TSD for the intended designations that the modeling done with this approach for plume rise is not adequate to demonstrate the absence of NAAQS violations in the NRG Cheswick source area.

Response

The EPA acknowledges GASP's agreement with the EPA's conclusion that the use of AERMOIST is not appropriate to demonstrate the absence of NAAQS violations in the NRG Cheswick source area since AERMOIST has not been fully analyzed by the EPA for validity and applicability to sources such as the Cheswick Generating Station.

3.2. Consideration of Ambient Air Monitoring Data for an Area for which an Air Quality Modeling Analysis Is Available

Comment

Puerto Rico commented that because it has chosen to meet the requirements of the DRR for sources in the San Juan area using air quality modeling, the EPA should not consider ambient air monitoring data when designating the San Juan area and the EPA TSD should not present ambient air monitoring data.

Response

The EPA disagrees with the assertion that ambient air quality data should not be considered in the designations process because a state has chosen to characterize the air quality around a source using modeling as its approach to compliance with the Data Requirements Rule. It would be arbitrary in the designations process to ignore monitoring-based data, which meets 40 CR 58 Appendix A, that demonstrates NAAQS violations.

3.3. Exclusion of Receptors Over Access-Restricted Industrial Facilities

Comment

Alabama Power Company stated that in the context of what can be considered ambient air relative to each modeled facility in the Walker County area technical analysis, the EPA correctly points out that Alabama has the options to exclude locations that are not feasible for placing a

monitor and to exclude receptors within Plant Gorgas's ambient air boundary. The EPA contradicts this point relative to receptor placement in the Mobile County area analysis as both Alabama Power and AkzoNobel made assertions that they would not allow monitors to be placed inside their respective modeled ambient air boundaries. Considering these assertions, it is not feasible to place a monitor within the ambient boundary of either facility and thus receptors were correctly excluded from these areas of both facilities for the combined modeling demonstration. Commenter submitted copies of letters from Alabama Power and AkzoNobel.

Response

The EPA does not believe that our ambient air policy relative to facilities in the Walker County and Mobile County Areas provided in the TSD for our intended designations are inconsistent. The EPA views the situations involving potential removal of receptors as different for the two areas. The EPA's March 20, 2015 memorandum titled "Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard" recommends "placing receptors only in locations where a monitor could be placed." At the time of our intended designation of Mobile County, the EPA did not have proper documentation supporting the exclusion of receptors within the boundaries of Alabama Power and AzkoNobel. ADEM submitted letters from Alabama Power (dated October 2, 2017) and AzkoNobel (dated October 3, 2017) as part of their October 19, 2017 response to the EPA's August 22, 2017 intended designations to provide further justification. Therefore, because Alabama has adequately justified that monitors could not feasibly be placed in these specific areas, the exclusion of receptors in those areas is consistent with the March 2015 Guidance.

3.4. Consideration of 3rd Party Information

Comment

The Kentucky Energy and Environment Cabinet commented that they strongly disagree with the EPA's use of 3rd party modeling to designate areas. The commenter states that the CAA section 107(d) allows for the Governor of a state, or the appointed authority, to submit initial recommendations and provides the EPA the authority to determine final designations and that there is no allowance for 3rd party input.

Response

The commenter correctly states that CAA section 107(d) specifically places responsibility on States to submit initial designation recommendations, and authorizes EPA to determine final designations. Section 107(d)(2)(B) further exempts EPA's promulgation of designations from the public notice and comment-related requirements of sections 553 through 557 of the Administrative Procedures Act. However, section 107(d)(2)(B) caveats this exemption by stating, "nothing herein shall be construed as precluding such public notice and comment whenever possible." The statute itself thus envisions that EPA may elect to allow for input from persons other than the States in the designations process, and EPA has chosen to do so here through a notice and comment process for the public. To the extent third party modeling is

submitted during this notice and comment process, EPA may therefore appropriately consider such modeling for its final designations. In addition, section 107 envisions that EPA shall promulgate designations based on "available information," and grants EPA discretion to modify States' recommended designations as the Administrator "deems necessary." This broad grant of discretion in no way restricts EPA's authority to gather, receive and evaluate available information that is not submitted by States, even in advance of the public comment period that section 107 endorses EPA using to promulgate designations.

Comment

Sierra Club stated that the EPA properly considered third-party modeling and should continue doing so in finalizing designations. The Proposed Designations make use of a mixture of state, industry, and public health and environmental submissions of data, including modeling data. EPA has properly elected to consider all information before it. This approach is in keeping with foundational principles of administrative law. In finalizing its area designations, EPA is required to base its decisions on all relevant data before it. However, Sierra Club is concerned by the different time periods by which members of the public and states have in which to submit comments on the Proposed Designations. If EPA were to ignore materials it receives from environmental and public health organizations or from concerned citizens while it was simultaneously accepting and considering materials submitted by states, or industry, whether directly or through the vehicle of state submissions, this would arbitrarily skew EPA's analysis—particularly if state comments are responsive to or critique comments submitted by the public. EPA must consider all information before it in making its decisions in finalizing the Proposed Designations.

Response

As described in the prior response to the Kentucky Energy and Environment Cabinet, while section 107(d) of the CAA explicitly gives States and EPA roles in the designations process, EPA may *elect* to provide a public notice and comment opportunity under section 107(d)(2)(B), but is not required to do so. However, nothing in section 107(d)(2)(B) speaks to when EPA must circumscribe the timing of such public notice and comment process if it chooses to offer one; importantly, nothing in the CAA precludes EPA from offering a notice and comment period to the general public that is at a different time, or of a different length, than the 120 days required by statute for EPA to give States notice of and an opportunity to comment on initial intended designations.

Furthermore, while the comment periods for the public and States are not concurrent for these designations, EPA is not "ignoring" information from certain members of the public as the commenter may be concerned it is. As EPA has offered a notice and comment process for the public beyond just the States, EPA is considering all information provided through this process in making its decisions for the final designations. The TSDs for the final designations reflect and describe EPA's decisions as a result of considering all relevant information in front of the Agency.

Finally, in light of the fact that EPA must give States at least 120 days' notice in advance of promulgating final modifications to States' recommended designations, but is not required to provide a public notice and comment process for non-States, EPA does not believe it would be reasonable in cases where the agency chooses to provide a public notice and comment process to then restrict States' rights to respond to EPA's intended designations and the public comments they draw in a way that is inconsistent with the purposes of the 120-day period Congress required EPA to provide to States. Such a result, in fact, could have the unintended result of serving as a disincentive to EPA providing a public comment period at all.

3.5. Use of Designations Other Than Unclassifiable, Attainment, or Nonattainment

Comment

North Dakota believes the Clean Air Act [Section 107(d)(l)(A)(i)(ii)(iii)] requires the EPA to make a designation in one of three statutory categories: Non-attainment, Attainment or Unclassifiable. There is no reference or definition in the Act for the hybrid classification "Unclassifiable/Attainment." The EPA's failure to provide a basis for its decision to ignore North Dakota's recommended "attainment' designation and the basis for its deviation from the statutory classification scheme is disappointing. The EPA's "Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard," issued March 20, 2015, identifies the hybrid classification as its "traditional approach," with no further explanation. North Dakota has made considerable investments in building and operating a monitoring network to assure the citizenry of the state that North Dakota has some of the cleanest air in the nation. As required by the designation process, North Dakota has provided extensive monitoring data that demonstrates compliance with the standard. In addition, dispersion modeling assessments were conducted, that followed performance criteria outlined in the Data Requirements Rule, that also demonstrates compliance with the standard. Both the monitoring data and the mandated dispersion modeling assessments demonstrate that North Dakota is attaining the SO_2 standard and therefore should be entitled to a formal designation of "Attainment."

Response

As it has done with initial NAAQS area designations since the 1970s, EPA has sought to resolve several tensions in using a hybrid designations label of "unclassifiable/attainment" or "attainment/unclassifiable". These tensions include EPA's desire, wherever possible, to use a nationally consistent method to honor state's designation recommendations in the context of state-federal partnership. They also include the inherent administrative and technical difficulty in determining with some degree of scientific certainty exactly where the boundary is between land area that is demonstrated to have air quality that meet a NAAQS and land area where neither a state or EPA are able to determine whether it meets a NAAQS. In designations efforts where determining whether air quality associated with a specific land area meets a NAAQS is determined by a network of federal reference monitors, we are able to say with some degree of certainty that the air quality in the immediate vicinity of any given monitor either does or does

not meet the NAAQS. However, the specific boundaries of the land area represented by any given monitor is not known with a high degree of certainty, and would vary by the nature of each NAAQS pollutant. For example, ozone is a NAAQS pollutant formed from secondary reaction of precursor emissions and thus a more regionally and uniformly dispersed pollutant with a more gradual concentration gradient over large land areas (e.g., miles to tens of miles). In contrast, lead is a NAAQS pollutant that is directly emitted and expected to have a much sharper concentration gradient the further one measures from a specific emissions source (e.g., a few miles). When faced with a national network of monitors sometimes numbering over a thousand, we would endeavor to identify areas in a consistently reasoned and timely manner, but it would be an administratively arduous and technically challenging task for states and EPA to determine in a consistent and timely manner what amount of land area to associate with each monitor, and to assess and determine how that land area might vary with the magnitude (both high and low) of the monitor readings in relation to the NAAQS being evaluated (e.g., do very high readings mean a monitor indicates a relatively large area has air quality exceeding the standard, and do readings very close to but not exceeding the level of the standard indicate a relatively small area has air quality that meets the standard?). Accordingly, EPA has used a hybrid designation of "unclassifiable/attainment" or "attainment/unclassifiable" to address and reconcile these technical and administrative difficulties in a consistent manner.

For the SO_2 NAAQS states may, in addition to monitoring, elect to characterize air quality in the vicinity of an emissions source through modeling. The commenter seems to suggest that where modeling information is available, that EPA has sufficient information to determine all of the boundaries separating areas that meet the NAAQS (attainment) from areas that do not meet the NAAQS (nonattainment), and from areas where this determination cannot be made based on available information (unclassifiable). Within the confines of the SO_2 modeling domain, EPA may have information sufficient to establish a boundary for the "area that meets the standard (and does not contribute to a nearby area that does not meet the standard)," consistent with the statutory definition of an attainment area. However, beyond that modeling domain (even one inch beyond the modeling domain) the EPA may have little to no information to determine the appropriate designation. Accordingly, areas just beyond the modeling domain but nearby to areas within the modeling domain might meet the statutory definition of "unclassifiable". Theoretically, then, the vast majority of the land area in the U.S., including throughout the state of North Dakota, could be designated "unclassifiable". This possibility of widespread "unclassifiable" designation is in tension with the availability of sufficient monitoring or modeling information to designate certain areas as "attainment" but for the lack of information for nearby areas, a result which States have expressed concern over.

Accordingly, EPA has sought to resolve the tension between the clear information available for areas within the SO_2 modeling domain, and the limited or lack of information available for areas beyond the modeling domain, through a hybrid "attainment/unclassifiable" designation which EPA believes is consistent with the designation classifications explicitly provided for in the statute. In both the March 20, 2015, guidance memo (Steve Page, Director EPA-OAQPS to Regional Air Directors, Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard) and the August 21, 2015, Data Requirements Rule, the EPA stated that while states have and may continue to submit designations recommendations identifying areas as "attainment", the EPA expects to continue its traditional approach, where appropriate, of using a hybrid designation category for certain areas. This hybrid "attainment/unclassifiable"

designation 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.

This approach addresses the unique issues presented by the SO_2 modeling domain for this final action by allowing the Administrator to designate an entire county that encompasses a modeling domain as "attainment/unclassifiable," rather than breaking it into two distinct areas with an "attainment" portion and an "unclassifiable" portion. It also allows the Administrator to designate areas nearby to other areas where states have no monitoring or modeling to characterize air quality, including all such areas in North Dakota, as "attainment/unclassifiable" rather than simply "unclassifiable". The combined designation of "attainment/unclassifiable" both reflects the individual definitions of "attainment" and "unclassifiable," and reflects the regulatory consequences of the individual designation categories under section 107(d)(1)(A) in a manner consistent with the respective regulatory requirements that attach as a consequence of such designation. Notably, an "attainment/unclassifiable" designation does not impose a regulatory burden of any kind under the CAA on States or other entities. An attainment/unclassifiable designation does not require states to develop and submit to the EPA SIPs that meet the requirements of sections 172(c) and 191-192 of the CAA and provide for attainment of the NAAQS as expeditiously as practicable, but not later than 5 years from the effective date of this final rule, as they would for areas designated "nonattainment." Rather, the state planning responsibilities for areas designated "attainment/unclassifiable" are the same if an area was designated simply either "attainment" or "unclassifiable." Furthermore, the more stringent permitting requirements under CAA section 173 applicable to sources located in nonattainment areas, including the requirement that new sources install controls at least as effective as the best used by an existing pollution source of the same kind, do not apply for areas designated attainment/unclassifiable just as they do not apply for areas solely designated "attainment" or "unclassifiable".

While the use of the attainment/unclassifiable term imposes no regulatory burden on any party, EPA appreciates North Dakota's concern that its citizens have assurances regarding air quality given North Dakota's investments in building and operating a monitoring network for SO_2. In the intended designations that were communicated to the Governors of affected states in letters from the respective EPA Regional Administrators dated August 22, 2017, the term "unclassifiable/attainment" was used for areas that meet the conditions of this definition. In response to both this comment and Wyoming's below in this section, EPA is adjusting the terminology from "unclassifiable/attainment" to "attainment/unclassifiable" to better communicate to the public that while the EPA does not have evidence sufficient to designate an entire area as attainment, there is no clear evidence to suggest that it might meet the conditions for being designated nonattainment at this time. There are no regulatory consequences of this inversion in terminology. EPA instead believes this revision to the terminology both clarifies and provides assurances to the States and public that regulations associated with nonattainment areas do not apply to these other areas, just as such regulations would not apply to areas solely designated "attainment," and that this better public understanding will facilitate the economic development of areas designated in this way.

With respect to monitoring and modeling data provided by North Dakota, the final TSD addresses this portion of the comment.

Comments

Lignite Energy Council, in response to North Dakota's intended designation, stated that pursuant to section 107(d) of the Clean Air Act (CAA), the EPA must designate areas as either "unclassifiable," "attainment," or "nonattainment" for the 2010 1-hour SO_2 NAAQS. Section 107(d) of the CAA defines a nonattainment area as one that does not meet the NAAQS or that contributes to a NAAQS violation in a nearby area, an attainment area as any area other than a nonattainment area that meets the NAAQS, and an unclassifiable area as any area that cannot be classified on the basis of available information as meeting or not meeting the NAAQS.

Response

Please see EPA's response to North Dakota's comment above for why EPA believes the use of "attainment/unclassifiable" is appropriate in the context of this final action and is consistent with the designations explicitly listed under the statute.

Comment

The Wyoming Air Quality Division noted that Clean Air Act (CAA) section 107(d)(l)(A) states that areas are to designated as either (i) nonattainment, (ii) attainment, or (iii) unclassifiable. EPA acknowledged and listed the CAA's attainment designation categories in the first sentence of its TSD accompanying its August 22, 2017, designation letter. In the same paragraph, however, EPA states that it intends to deviate from these categories by designating areas as "nonattainment," "unclassifiable/attainment," or "unclassifiable" based on a set of somewhat different definitions than those listed in the CAA. More specifically, the EPA intends to designate areas as "unclassifiable/attainment" in Wyoming that the Governor's letter recommended to be designated as "attainment." The Division asks that EPA align its definitions with those of the CAA, especially with respect to the "unclassifiable/attainment" classification. The EPA states in a footnote to the TSD summary that: "The term '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." By this definition, an area cannot be classified as "attainment" unless it has first been classified as "nonattainment," which departs from the plain language definitions in the CAA. Wyoming made the recommendation of either "attainment" or "unclassifiable" for the areas in the letters dated March 24, 2011, and January 13, 2017, based on reliable data. Other definitions run counter to the CAA definitions and lead to confusion. The Division is concerned that EPA's use of different definitions may create confusion, lead to contradictory results, and create the potential for unnecessary legal challenges. The Division asks EPA to refrain from using interpretive definitions as it has in the TSD and return to the clear, plain language definitions listed in the CAA. At the very least, the Division ask that the EPA use "attainment/unclassifiable" rather than "unclassifiable/attainment."

Response

In this final action EPA has clarified its definition for "attainment/unclassifiable" areas for application to SO2 designations to better align with definitions in the statute, and is using the term "attainment/unclassifiable" rather than "unclassifiable/attainment" as requested by the commenter. In response to commenter's assertion that EPA is departing from the statute by only having as "attainment" areas those that were properly redesignated from "nonattainment," EPA believes that in the context of this final rule, the more appropriate designation for certain areas is "attainment/unclassifiable" given the uncertainty presented for areas beyond the SO2 modeling domain. For EPA's full reasoning behind the use of this designation in the context of this final rule, please refer to the response to North Dakota's comment above.

3.6. Use of Modeling for Designations

Comment

Sierra Club stated that as outlined by EPA in the Final SO_2 NAAQS Rule, 75 Fed. Reg. at 35,551, air dispersion modeling is the best method for evaluating the short-term impacts of large SO_2 sources. This is consistent with EPA's historic use of air dispersion modeling for multiple NAAQS implementation purposes, including for attainment designations. Sierra Club provided an extensive review of the history of this concept, to support its position that dispersion modeling is a rigorously verified method for evaluating impacts on the SO_2 NAAQS, and has a lengthy and court-validated history as an appropriate tool for use in designations.

Response

The EPA acknowledges this comment in support of the use of air dispersion modeling for SO_2 NAAQS designations. The final designations are based on such modeling when the modeling was performed in accordance with current EPA regulations and guidance and when the available modeling results allow the EPA to reach conclusions regarding the existence of a NAAQS violation and regarding contribution to air quality in a nearby area that is violating the NAAQS.

Comment

Sierra Club stated that modeling-based designations are ideal for swift SIP and FIP development to prevent further delays in NAAQS implementation. Not only are modeling-based designations quicker, more robust, and more accurate than monitor-based evaluation of air quality, but such designations based on modeling can also speed up SO_2 NAAQS implementation in areas failing to attain the standard. This is because modeling, whether directly or through the vehicle of state submissions, can indicate exactly what emission limits need to be introduced to a large SO_2 pollution source to ensure that the standard is attained and maintained. Using modeling for and from designations purposes in nonattainment SIP preparation thus can help states and EPA avoid the chronic problem of late NAAQS implementation. It can also be a powerful tool in enabling EPA to prepare federal implementation plans for states that have failed to prepare their SIPs. EPA should thus, in finalizing the Proposed Designations, make it clear to the states that they can

and must submit nonattainment SIPs by the required deadline, and that if not, EPA will use the modeling before it to generate and promulgate federal implementation plans, and will do so far sooner than the expiration of the two-year deadline the Clean Air Act affords EPA.

Response

While the EPA agrees with the commenter that modeling is an appropriate tool for reaching conclusions that are relevant to designations for the SO_2 NAAQS, we do not agree the role of modeling in developing SIPs for nonattainment areas has any bearing on whether modeling in general, or a particular modeling effort, should be used in designations. The portion of the comment regarding EPA communications with states about SIP development and what EPA action would be appropriate if SIPs are not submitted or are not approved is outside the scope of this designations action.

3.7. Use of Flagpole Receptors

Comment

Sierra Club stated that flagpole receptors are part of the regulatory default AERMOD configuration, and their use can only make modeling results more relevant. While Sierra Club and others have used the FLAGPOLE option in AERMOD-which is an included option in the regulatory default configuration of the software-to increase the accuracy and representativeness of the modeling, some states have questioned the use of flagpole receptors. This is improper. As EPA has noted in its guidance, "modeling concentrations at breathing height would lead to better characterization of air quality at the level most individuals are breathing" and thus there should be no concern with using the FLAGPOLE option. Although EPA does not require the use of such receptors, it plainly condones their use. Indeed, to place receptors to ascertain air quality precisely at ground level makes little intuitive sense. The simple reality is that people breathe through their noses and mouths, not through their shoes and socks, and so modeling impacts at face-height instead of at foot-height is better practice; this is in part why air monitoring sensors are likewise not placed directly on the ground. Accordingly, criticisms of Sierra Club modeling on the basis of the use of the FLAGPOLE option should be disregarded.

Response

The Modeling Technical Assistance Document states that in recent years, many modeling exercises of SO_2 have used a receptor height other than ground level to account for the breathing height of individuals. This is achieved using the AERMOD FLAGPOLE option. While it may seem that modeling concentrations at breathing height would lead to better characterization of air quality at the level most individuals are breathing, the use of FLAGPOLE receptors is not necessary. Appendix W does not specify that receptors should be placed at levels other than ground level for comparison to the NAAQS.

The EPA's assessment of how the use or non-use of the FLAGPOLE option bears on the ability to reach conclusions regarding NAAQS violations and/or contributions to air quality in nearby

areas that violate the NAAQS, where that issue applies, is provided in the TSD for the final designations.

4. Comments Specific to Alabama

4.1. Multiple Areas in Alabama

Comment

The Alabama Department of Environmental Management (ADEM) commented that based on the schedule established in the consent decree and DRR, ADEM submitted information by the deadlines only to be frustrated by changing guidance, duplication of effort, inconsistent communication, and many late hits from the EPA. This has significantly hindered ADEM from providing consistent direction to Alabama sources performing the modeling throughout the process and has frustrated all parties. The EPA should clearly define all rules, guidance before a major effort like the DRR is undertaken and should not make changes to requirements without changes to deadlines. Specifically, ADEM stated that the EPA's changes to its modeling technical assistance document or TADs regarding the placement of receptors was ill-timed and required additional modeling analysis that served no purpose. The commenter states that the TADs provide recommendations and are not binding or enforceable. The original TAD indicated receptors should be placed in areas where a monitor could reasonably be deployed but a year later the EPA revised the TADs to include modeling receptors in all areas. The commenter stated that this change in guidance is illogical based on the purpose of the DRR which was to predict air quality in places where a monitor could be deployed and was made well after sources had begun modeling. The commenter goes on to allege that due to late changes in the modeling versions and the modeling of nearby sources, remodeling of some DRR sources was required with short turnaround times which duplicated efforts for some sources.

Response

The EPA acknowledges ADEM's expressed frustrations regarding the SO_2 designation process. The EPA amended the 2010 SO2 NAAQS Designations Modeling Technical Assistance Document (TAD)between February and August 2016 to clarify the rationale in which a receptor location could and could not be excluded from analysis. This clarification did not necessarily warrant updated modeling as explained in the most recent Modeling TAD. The EPA agrees that the EPA guidance does not establish requirements that are binding on states or the EPA. The basis for the final designation of each area in Alabama is contained in the TSD for the final designations or, where so indicated for that area, in the TSD for the intended designations. The EPA endeavors to work closely with all stakeholders, including our state partners, to resolve issues throughout the designation process in a manner where the goals for all parties involved are satisfied while meeting all CAA requirements. The EPA agrees that this third round of SO_2 designations, which affects the majority of the nation, presented the most challenging technical and policy issues to resolve, given the wide range of areas and situations associated with this round. The EPA commits to engaging in further consultation with ADEM on how to improve coordination on future technical and policy issues.

Comment

The Alabama Department of Environmental Management (ADEM) provided additional information regarding issues identified in EPA's TSD for the intended designations for areas in Alabama. These issues included technical aspects of the modeling, the status of the applicability of emission limits that are the basis of the modeling inputs for allowable emissions, background concentrations, and the justification for the exclusion of modeling receptors on certain private property. ADEM requests that the areas around the DRR-subject sources in Alabama be designated Attainment.

Response

These comments are addressed in the TSD for the final designations.

Comment

The commenter (ADEM) stated that the EPA did not provide meaningful consultation and compromise with respect to the background concentration analysis for modeled DRR sources in the State. The State indicated that the use of the monitoring data from the Centreville, Alabama, South Eastern Aerosol Research and Characterization (SEARCH) monitor site has been considered representative for new source review (NSR)/prevention of signification deterioration permitting (PSD) modeling purposes, the data quality is exceptional and location of the monitor as background is favorable for rural analyses. ADEM also stated that they conducted several analyses to justify use of the Centreville SEARCH monitor as well as an alternative Mammoth Cave monitor in Kentucky. The State mentions that the EPA was unwilling to consider analyses, was not forthcoming on other options and the background analysis conducted for sources was unnecessary for approval of the modeling analysis. ADEM also stated that the EPA provided the air agency with late and insignificant comments on the modeling analysis for DRR sources in the State. ADEM indicated that the EPA's comments in the August 22, 2017, intended designations were new and insignificant including the comment regarding the meteorology data and surface characteristics used in the modeling which have been used in NSR/PSD permitting programs with no issues.

Response

The EPA acknowledges ADEM's concern with the consultation process for air quality designations. The EPA strives to collaborate with all stakeholders, including our state partners, to resolve issues throughout the designation process in a manner where the goals for all parties involved are satisfied while meeting all CAA objectives. The EPA agrees that this third round of SO_2 designations, which affects the majority of the nation, presented highly challenging technical and policy issues to resolve, given the wide range of areas and situations associated with this round. The EPA commits to engaging in further consultation with ADEM on how to improve coordination on future technical and policy issues.

The Centreville SEARCH monitor is not a regulatory monitor that meets the QA/QC criteria and other requirements in 40 CFR Part 58, Appendix B for PSD monitors. Similarly, the Centreville

SEARCH monitor does not conform to Section 8.3.1(b) of the Guideline on Air Quality models contained in 40 CFR Part 51, Appendix W, which states that "the monitoring network used for developing background concentrations is expected to conform to the same quality assurance and other requirements as those networks established for PSD purposes." The EPA accepted, when appropriate, ADEM's supplemental analyses supporting the use of the Mammoth Cave monitor for developing background concentrations. In several instances, however, there was not adequate justification for determining whether Mammoth Cave was a representative background monitor pursuant to the criteria provided in Section 8.2.2(c) of the Guideline on Air Quality Models contained in 40 CFR Part 51, Appendix W, which states that an appropriate regional site is "one that is located away from the area of interest but is impacted by similar natural and distant manmade sources." Refer to the TSD for the Intended Round 3 Area Designations for Alabama (Chapter 3) for more details regarding the use of the Centreville SEARCH and Mammoth Cave monitors for developing background concentrations.

In addition, the TSD for the Intended Round 3 Area Designations for Alabama contains detailed assessments of the meteorology data and surface characteristics used by ADEM in their modeling.

4.2. Mobile County

Comment

Alabama Power Company noted that EPA states on pages 36 and 38 of the TSD that documentation is needed to demonstrate that the emissions reductions for Barry Units 1, 2 and 3 are permanent and federally enforceable. The United States of America and Alabama Power modified a Consent Decree originally entered on June 19, 2006, in the United States District Court for the Northern District of Alabama Southern Division. The Joint Modification to Consent Decree was entered in the same court and filed on August 24, 2015 (Case No. 2:01-cv-00152-VEH, Document 400).

Response

The TSD for the final designations addresses this comment.

Comment

Alabama Power Company stated that in the context of what can be considered ambient air relative to each modeled facility in the Walker County area technical analysis, the EPA correctly points out that Alabama has the options to exclude locations that are not feasible for placing a monitor and to exclude receptors within Plant Gorgas's ambient air boundary. The EPA contradicts this point relative to receptor placement in the Mobile County area analysis as both Alabama Power and AkzoNobel made assertions that they would not allow monitors to be placed inside their respective modeled ambient air boundaries. Considering these assertions, it is not feasible to place a monitor within the ambient boundary of either facility and thus receptors were

correctly excluded from these areas of both facilities for the combined modeling demonstration. Commenter submitted copies of letters from Alabama Power and AkzoNobel.

Response

The EPA does not believe that our ambient air policy relative to facilities in the Walker County and Mobile County Areas provided in the TSD for our intended designations are inconsistent. The EPA views the situations involving potential removal of receptors as different for the two areas. The EPA's March 20, 2015 memorandum titled "Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard" recommends "placing receptors only in locations where a monitor could be placed." At the time of our intended designation of Mobile County, the EPA did not have proper documentation supporting the exclusion of receptors within the boundaries of Alabama Power and AzkoNobel. ADEM submitted letters from Alabama Power (dated October 2, 2017) and AzkoNobel (dated October 3, 2017) as part of their October 19, 2017 response to the EPA's August 22, 2017 intended designations to provide further justification. Therefore, because Alabama has adequately justified that monitors could not feasibly be placed in these specific areas, the exclusion of receptors in those areas is consistent with the March 2015 Guidance.

4.3. Washington County

Comment

PowerSouth Energy Cooperative noted that EPA requested additional information regarding the ambient air boundary for the Lowman Plant in Washington County, Alabama. The Lowman Plant is surrounded by heavily forested areas and swamp lands to the north and west, and the Tombigbee River to the east and south. In addition to these terrain barriers and no trespassing signs along the boundaries of the facility, all areas of the facility are under regular surveillance in accordance with the site's U.S. Department of Homeland Security Site Security Plan ("SSP"). This SSP includes video cameras operating at all times, an intruder alarm, and specific training for security employees regarding trespassers, which includes active shooter, intruder alerts, and surveillance detection. The SSP has been approved as sufficient to prevent unauthorized access to the facility even though the verified presence of alligators in the marsh/swamp areas make the area too dangerous to regularly foot-patrol. Thus, the facility is adequately controlled/patrolled to prevent access by the general public.

PowerSouth's receptor grid appropriately excluded receptors from the Boise White Paper facility. In letters sent to ADEM on January 31, 2017, Boise White Paper and PowerSouth both stated that they would not allow ambient SO_2 monitoring equipment to be placed on their properties. The EPA's Modeling TAD states that modeling under the DRR is intended to approximate what an ambient SO_2 monitor would observe should one be placed at any particular modeled receptor location. Thus, because no actual monitors would be placed within ambient air boundary of either facility, the modeling receptors were appropriately excluded from the controlled and/or patrolled areas of both facilities.

Constant values were used for exhaust temperatures for Lowman Units 1 and 2 because the units exhaust through a wet scrubber that limits the exit temperatures. Due to the nature of the wet scrubber, a constant low exhaust temperature is maintained. Moreover, although the Lowman Plant utilizes CEMS, the CEMS information does not include temperature data. Therefore, the modeling analysis utilized temperatures from stack test data, which was a constant temperature. Furthermore, and consistent with the modeling TAD, the four emergency generators were not modeled because they do not have continuous enough or frequent enough emissions to contribute significantly to the annual distribution of maximum daily 1-hour concentrations. These generators are typically only run for reliability testing. Accordingly, SO_2 emissions associated with the infrequent operations of the four emergency generators were not included. Moreover, the units were modeled in their current configuration using three years of past actual emissions data because adjusting the emissions data to reflect the current configuration provides the most accurate characterization of emissions for the area. As explained in the modeling analysis, PowerSouth installed a permanent damper within the Unit 1 exhaust duct in 2016, which has resulted in exhaust gases from Unit 1 flowing through CS004, the exhaust stack shared with Unit 2. Because emissions can no longer be routed through the old Unit 1 stack, PowerSouth adjusted the emissions data to reflect the current and permanent configuration in order to most accurately characterize relevant emissions from Unit 1. Use of the current configuration in the modeling analysis also explains why the emissions used in the modeling for Lowman Units 1 and 2 do not match the CAMD reported values for 2012-2014. The emissions used in the modeling reflect Unit 1's operations exhausting through CS004, which is consistent with current operations and the most accurate characterization of emissions from Units 1 and 2.

The American Midstream Chatom facility was not included in the modeling analysis because it is located 46 km west of the Lowman Plant and is not likely to have the potential to cause concentration gradient impacts within the area of analysis. ADEM performed a cluster analysis of emission sources in the area to determine what sources should be included in the modeling analysis. For all sources within 20 km of Lowman Plant, ADEM developed a Q/D value by dividing total 2014 emissions by the distance between the two facilities. If the Q/D metric yielded a value of greater than 20, the facility was retained and additional QA/QC was performed on a unit-by-unit basis. As a result of ADEM's analysis, ADEM chose to include the Boise White Paper facility located 1 km away in the characterization for the area. Importantly, EPA did not prescribe specific criteria on selecting nearby sources for inclusion in modeling analyses and, accordingly, state agencies used their discretion to develop the criteria they felt was appropriate. ADEM likely reasonably concluded that the American Midstream Chatom facility could be excluded from the modeling because of its distance from the plant, which is over twice the distance ADEM deemed as a reasonable cutoff for the area. Notably, the maximum predicted value occurred just north of the Lowman facility.

With respect to the Boise White paper facility emission values not matching the values in the EIS Gateway, a data substitution methodology was developed for Boise and approved by ADEM's permit engineer for use in the modeling analysis. This methodology was submitted as "Appendix A-ADEM Data Approval" of the modeling protocol.

Response

These comments are addressed in the TSD for the final designations.

5. Comments Specific to Colorado

Comment

Sierra Club stated that Colorado's modeling for the Craig, Hayden, and Pueblo areas is not consistent with Appendix W to 40 CFR 51, because the modeling does not include three years of representative meteorological data for any of the three sites.

Response

Contrary to the commenter's assertions, modeling provided for all three sites during Round 3 include three years of the most representative meteorological data. While the meteorological data are not concurrent with the emission years for the Hayden area, the meteorological data are the most representative (reasons outlined below) and consistent with EPA's August 2016 SO_2 Designations Modeling TAD and the EPA's Guideline on Air Quality Models (40 CFR Part 51 Appendix W), which describe factors that should be considered when determining representativeness of meteorological data. Our review of these factors with regard to the Craig, Comanche, and Hayden generating stations is as follows:

- The analyses accurately characterize transport and dispersion, and capture maximum design concentrations and where they are anticipated to occur (Craig, Comanche and Hayden Generating Stations);
- Surface characteristics are representative of the land cover in the vicinity of the meteorological data and around the sources (Craig, Comanche and Hayden Generating Stations);
- Each meteorological variable was judged separately, as each variable could be different;
- The most recent three years of meteorological data were used (Craig and Comanche Generating Stations);
- Data selection was based on spatial and climatological (temporal) representativeness, which is defined as: (1) the proximity of the meteorological monitoring site to the area under consideration, (2) the complexity of terrain, (3) the exposure of the meteorological site, and (4) the period of time during which data are collected (Craig, Comanche and Hayden Generating Stations); and
- Older meteorological data from past regulatory applications was used when representative meteorological data from the most recent three years is not available (Hayden Generating Station);

Comment

Sierra Club also stated that each of the Craig, Hayden, and Comanche Generating Stations is located in complex terrain that makes reliance on standard National Weather Service data problematic.

Response

As outlined in the air quality modeling reports provided by Colorado, the airport data used in the modeling conducted for the Craig, Hayden, and Comanche Generating Stations can be considered the most representative meteorological datasets based on the factors outlined in the EPA's guidelines (Modeling TAD and Appendix W), as summarized in the above response to the first comment from Sierra Club. Applying the factors identified in response to the above comment, the EPA weighs the evidence and considers the selected airport data for these sources to be appropriate for the following reasons:

- Craig Generating Station: The airport tower used in Colorado's analysis is less than 5 km from the source and the surface characteristics at the airport are similar to the area at the Craig Generating Station. The wind speeds at the airport are lower than the on-site data, which would ensure that the maximum design concentrations are being predicted by the model. In addition, the airport dataset had three years of data, while the on-site dataset only collected data for one year and did not contain all of the variables needed to run AERMOD. In other words, substitutions from other datasets would be needed to use the on-site data in AERMOD. Given the amount of information missing from the on-site dataset, the majority of the meteorological information used to run AERMOD would ultimately be based on another dataset and not the on-site data.
- Comanche Generating Station: Contrary to commenter's assertion, Colorado's analysis did not use airport data as the primary source of data, instead used Rocky Mountain Steel Mill (RMSM) tower data. These on-site data were collected at a tower about 4 km from the source and the area between the source and the tower do not have significant terrain features that could potentially influence the overall meteorological conditions. Airport data was only used to substitute missing data, which made up less than one percent of the hours. It is also expected that the plumes from the stacks for the Pueblo area sources will be in the mountain/valley wind system associated with the Arkansas River Valley. The RMSM tower also experiences the same wind system as the Pueblo area sources. Therefore, the airport data is anticipated to be representative for the Comanche Generating Station.
- Hayden Generating Station: Colorado's analysis used airport data, and the airport is located in the same valley as the source. The airport is less than 4 km from the source, and no significant terrain features separate the Hayden Generating Station from the meteorological tower that could potentially influence the overall meteorological conditions. The three most recent years of the data were not complete based on the EPA's August 2016 Modeling TAD. As a result, the analysis used 2011, 2013, and 2014 for the modeling, which is consistent with the EPA's Modeling TAD.

Comment

Sierra Club also asserted that the wind rose shown at Craig-Moffat Airport is distinctly different than the winds on-site, and suggested that on-site meteorological data should have been used for Colorado's Craig Generating Station modeling analysis.

Response

The EPA's Modeling TAD guidance and Appendix W Guidelines describe factors that could be considered when determining representativeness of meteorological data. These factors have been summarized above in response to the first Sierra Club comment, and include consideration of wind rose data.

In regards to the wind rose plots included in Colorado's November 2016 presentation (which the Sierra Club attached to and referenced in their comment letter) that illustrated differences between the Craig Generating Station on-site data and the airport data, the Sierra Club overlooked elements of the presentation in asserting that the airport data are not representative and the on-site meteorological data should have been used in the Craig Generating Station modeling analysis. Based on the EPA's understanding of the presentation, the purpose of the presentation was to obtain feedback from the air quality modeling community on how to prioritize meteorological parameters needed for AERMOD to assist in assessing the representativeness of available meteorological datasets. Colorado was requesting feedback on which meteorological parameters AERMOD is most sensitive to in order to use this feedback as an additional factor to help determine the representativeness of a dataset. Colorado has situations where multiple datasets exist and analyses of the available datasets show that a single dataset does not capture all of the meteorological conditions that could occur at the source location or does not address all of the factors recommended in EPA's guidelines. Therefore, Colorado appears to have given the November 2016 presentation to provide for public feedback and better understand AERMOD's sensitivity to certain parameters and assess whether this sensitivity could be another factor to consider when selecting an available dataset to ensure that AERMOD would predict maximum design concentrations with a reasonable level of confidence. As an example, Colorado presented wind rose plots of the available meteorological datasets around the Craig Generating Station. This example showed that wind speed and direction during the night are different among the datasets. Colorado also noted that none of the datasets could satisfy all of the EPA recommended factors for determining the representativeness of a dataset, which resulted in the state evaluating the various datasets to determine which was most representative.

Colorado's November 2016 presentation included night-time wind rose plots to show that the meteorological conditions between sunset and sunrise (night-time conditions) at this location could represent the worst-case conditions, which would potentially ensure the prediction of conservative maximum design concentrations. The EPA finds that this is an appropriate factor to consider, but the EPA ultimately concluded that the airport dataset is appropriate for the Craig Generating Station modeling analysis based on the consideration of additional factors (e.g., other variables, additional time periods, etc.). While an analysis of the AERMOD results using the various datasets eventually could also provide information on the representativeness of the airport data, such an analysis cannot be completed at this time with the on-site data until a longer time period is captured and all the variables needed to run AERMOD are collected from the on-site tower.

In particular, the on-site dataset did not collect all of the needed variables (e.g., the on-site dataset is missing solar radiation, temperature differences, turbulence data) because the measurements were taken before AERMOD was promulgated in 2005 (40 CFR 51, Appendix

W). Prior to AERMOD, modeling analyses used the Industrial Source Complex (ISCST3) model, which only relied on measured wind speed and direction and temperature. Without the additional variables, a comprehensive assessment of the individual variables needed for AERMOD cannot be completed to determine that the airport data is not representative for the Craig Generating Station modeling analysis. Further, substantial substitutions from other datasets would be needed to use the on-site data in AERMOD. Given the amount of information missing from the on-site dataset, the majority of the meteorological information used to run AERMOD would ultimately be based on other datasets.

After considering the EPA factors outlined in Appendix W and Modeling TAD and the qualities of the airport dataset in its entirety, Colorado found that the airport was the most representative dataset for the Craig Generating Station. In particular:

- The airport data site is less than 5 km from the source;
- The surface characteristics at the airport were considered similar to the area at the Craig Generating Station;
- The wind speeds of the airport data are lower than the on-site data, which would ensure that the maximum design concentrations are being predicted by the model; and
- The airport dataset contained three years of data, where the on-site dataset was only collected for one year and did not contain all of the variables needed to run AERMOD.

Based on these factors, Colorado concluded that the on-site data would not be a viable option for the DRR modeling analysis, and that there is insufficient information to conclude that the airport data is not representative for the Craig Generating Station modeling analysis. The EPA agrees with Colorado's conclusion and finds that the airport data are sufficiently representative of conditions at the Craig Generating Station for the modeling analysis.

Comment

Sierra Club also stated that the Yampa Valley Airport data (near the Hayden Generating Station) did not meet the EPA's requirements for completeness. The commenter asserted that an evaluation of the data from the Yampa Valley Airport tower indicated that data for the 2015 did not meet the data requirement of at least 90% complete on a quarterly basis, and that data from 2012 also did not meet the completeness requirement.

Response

The EPA agrees that the 2012 and 2015 data from the Yampa Valley Airport tower did not meet completeness requirements. For this reason, the analysis used data for the years 2011, 2013, and 2014, which is consistent with guidance in the EPA's Modeling TAD.

Comment

Sierra Club also stated that Colorado and the EPA rejected Sierra Club's modeling analysis in the Round 2 designation of Martin Drake because the meteorological data was unrepresentative. The commenter asserted that Colorado is just choosing its position on the reliability of meteorological data in complex terrain based on what modeling outcome it desires.

Response

The EPA's Modeling TAD and Appendix W Guidelines describe factors that could be considered when determining representativeness of meteorological data, as summarized in the response to the first comment from Sierra Club. As noted in the Colorado chapter of the intended designations Technical Support Document (TSD) and in this response to comments document, the meteorological datasets used for the Craig, Hayden, and Pueblo area designations are sufficiently representative for those areas' respective modeling analyses (See EPA-HQ-OAR-2017-0003-0070). The EPA applied these guidelines during the Round 2 SO_2 designations process, which included the Colorado Springs area designation (See 81 FR 45039, July 12, 2016). The EPA will not revisit those designations as part of this Round 3 designations process.

6. Comments Specific to Florida

6.1. Citrus County

Comment

Sierra Club stated that EPA is correct that Florida DEP's modeling relying on "simulated actual emissions" does not support an Attainment designation for Citrus County under the 1-hour SO_2 NAAQS. EPA was correct to conclude that Florida's use of "simulated actual emissions" in its air modeling is flawed, and cannot be used to characterize the maximum 1-hr SO_2 concentrations in the area for NAAQS designation purposes. As noted above, EPA correctly concluded that such a tactic "improperly utilized simulated actual emissions that are neither representative of actual emissions nor federally enforceable and effective allowable emissions, or of corresponding estimated SO_2 air quality impacts." The Sierra Club agrees that Florida DEP's approach is deeply flawed and "not reliable for designation purposes." Florida DEP's use of synthetic emission rates that reflect neither actual historical SO_2 emissions nor enforceable maximum allowable SO_2 emissions is not permissible. See, e.g., 42 U.S.C. § 7410(a)(2)(A) (SIPs must include "enforceable emissions limitations"). Not only is choosing to model what Florida DEP wishes emissions might have been, rather than what they actually were, deeply problematic, Florida DEP also identifies no enforceable permit or SIP condition that limits Units 1 and 2's emissions to those achieved if the facility burns only lower sulfur coal. Absent an enforceable 1-hour limit on Unit 1 and 2's SO_2 emissions, regulators have no basis for assuming such rates would occur in the future, or for revising downward the units' historical emissions. Consequently, EPA correctly rejected modeling that is based on neither the plant's actual nor permitted potential emissions.

Commenter provided results of modeling using actual historical emission data, using the actual reported emissions from the Crystal River Power Plant, retaining all of the other inputs that Florida used. The modeling Sierra Club performed using actual emissions, not surprisingly, demonstrates nonattainment. In fact, for the 2012-2014 period, Sierra Club's modeling demonstrates peak impacts of concentration of 341.1 $\mu g/m^3$, whereas Florida's modeling using fabricated emissions was only 187.6 $\mu g/m^3$. Sierra Club also performed modeling for subsequent periods--namely for 2013-2015, and 2014-2016--which likewise demonstrates nonattainment. This corrected air modeling further confirms that EPA should finalize its proposed nonattainment designation for the portion of Citrus County surrounding the Crystal River Power Plant.

Although the closest ambient air monitor to Crystal River is not properly placed to capture peak impacts on the NAAQS, it establishes that the area surrounding the Crystal River Power Plant is not meeting the NAAQS for SO_2.

Response

These comments and the new modeling analysis are addressed in the TSD for the final designations.

Comment

Sierra Club stated that notwithstanding the impending December 31, 2017, legal deadline, and the EPA's stated plan to meet it, the EPA, in its Technical Support Document, purports to leave the door open to change its designation of Citrus County "prior to the effective date of the designations," based either on (1) Florida submitting updated monitoring data from the Citrus County SO_2 monitor, in advance of the designation's effective date, "and no other information indicat[ing] there is a NAAQS violation for the 2015 - 2017 period," or (2), Florida submitting that same updated monitoring data, accompanied by credible modeling demonstrating attainment for the current 3-year period. The EPA's suggested approach is impermissible for two separate and distinct reasons—one procedural, and the other substantive. First, once the EPA provides its NAAQS designation for the portion of the Citrus County that surrounds the Crystal River Power Plant, no later than December 31, 2017, it can only redesignate that area as in attainment by following the applicable legal provisions for redesignation. Under section 107(d)(3)(E) of the CAA, an area may only be redesignated if specified conditions are met, including that EPA "determines that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable implementation plan and applicable Federal air pollutant control regulations and other permanent and enforceable reductions." Among other deficiencies in the EPA's purported offer to change its designation after it has been finalized based upon information received prior to the effective date, is that, as noted above, nothing in the record supports that any air quality improvements Florida theoretically may point to would be due to permanent and enforceable emissions reductions. Accordingly, once the EPA makes its designation to meet the December 31, 2017 deadline, it can only modify that consistent with the requirements set forth in Section 107(d)(3)(E) of the CAA, as well as its own SO_2 SIP guidance, which also addresses redesignation requirements. The EPA is nowhere authorized to blatantly ignore the governing law and modify a designation of nonattainment through an extra legal process.

Second, the substance of the EPA's proposal is likewise unfounded. The EPA has already correctly recognized that the SO_2 monitor that it proposes be relied upon to demonstrate attainment or attainment/unclassifiable is not located to capture the maximum concentration of emissions. As such, because it concededly is located to underreport emissions levels, it may be relied upon only to demonstrate nonattainment, but it cannot be relied upon to demonstrate attainment. As the EPA recognizes, a monitor perfectly located to capture the highest levels of emissions would report higher levels of SO_2 than the Crystal River Preserve SO_2 monitor—and only those could appropriately be used to redesignate a nonattainment area as attainment or unclassifiable. This is particularly true in this case where, as shown above, Sierra Club ran air modeling using actual emissions, and such modeling independently demonstrates nonattainment.

Response

The "legal deadline" of December 31, 2017, the commenter refers to is a consent decree deadline by which the EPA must *sign* its notice of promulgation of final designations for publication in the *Federal Register.* The commenter is correct that section 107(d)(3)(E) provides the legal requirements and mechanism for redesignating an area once it is designated. However, such redesignation hinges upon there being such a designation in place for an area, which is not at the

time of signature by the EPA of the *Federal Register* notice promulgating such designations. Notably, section 107(d)(2) of the Clean Air Act and section 553(d) of the Administrative Procedures Act contain publication and effective date requirements applicable for promulgation of designations. The commenter therefore incorrectly asserts that the December 31, 2017, consent decree deadline is when "EPA makes its designation." Accordingly, the redesignations process under section 107(d)(3)(E) is not yet applicable at the legal deadline referenced by commenter.

This comment also addresses an action that the EPA is not taking at this time, namely to revise a designation from nonattainment to attainment or unclassifiable, and thus is not relevant to this designation action. Refer to the TSD for the Final Round 3 Area Designations for Florida (Chapter 9) for detailed information about the designation of this area based on all available information.

6.2. Hillsborough County and Polk County

Comment

Florida Department of Environmental Protection (DEP) commented that the EPA stated in its 120-day letter that it intends to designate the area around Mosaic New Wales as "nonattainment." The Department believes that the State of Florida's October 20, 2017 proposed SIP submission incorporating the air construction permits, data reflecting actual emissions reductions and projected operating parameters, and associated modeling demonstrating attainment are sufficient evidence to support a designation of "unclassifiable." If, however, EPA finalizes a designation of "nonattainment," the Department recommends minor changes to the area boundaries based upon a thorough analysis of the area following EPA guidance. The suggested area boundaries, together with a full analysis, are provided as Appendix A to the commenter's letter.

Response

These comments are addressed in the TSD for the final designations.

Comment

Florida DEP noted that EPA has stated its intention to designate the area around Mosaic Bartow as "unclassifiable." EPA states that this intended unclassifiable designation is due to the possibility that the Bartow facility is significantly contributing to the modeled violations within the intended Polk County nonattainment area. The Department disagrees with this intended designation. The Mosaic Bartow facility is more than 15 km from the New Wales facility and more than 11 km from any modeled violations. Florida's DRR area characterization modeling demonstration for Mosaic Bartow indicated that all areas around the facility are fully in attainment of the 2010 SO_2 NAAQS. The Department believes this to be sufficient evidence to support a designation of "attainment" for this area.

Furthermore, Mosaic Bartow has already received a final air permit from the Department requiring it to perform work to meet a stringent new SO_2 emissions limit as a part of the larger SO_2 emissions reduction project for the area around Mosaic New Wales that is the basis of the Department's October 20, 2017 proposed SIP revision. Florida DEP provided documentation on this final permit. These reductions were not strictly necessary to bring the area back into attainment. Due, however, to the unique circumstances of one company owning both facilities, Mosaic determined that the best approach involved reducing emissions at both facilities. Additional discussion on this point can be found within Appendix A to this letter.
If, however, EPA finalizes a designation of "unclassifiable," the Department requests that EPA adjust the area boundaries to align with the Department's recommendation in Appendix A.

Response

The modeling for the area around Mosaic Bartow was submitted by Florida in January 2017. Florida's analysis, which included actual emissions from the nearby Mosaic New Wales facility, was performed with Mosaic-Bartow's 2012-2014 actual emissions and our analysis of this modeling remains as described in Chapter 9 of the TSD for the intended Round 3 area designations.

Florida submitted additional modeling in October 2017 and December 2017 for the area around the Mosaic New Wales facility but did not submit any additional modeling for the Mosaic Bartow facility. Therefore, since there was not any additional modeling for the facility to review, we are finalizing the designation proposed in the intended designations.

Comment

Florida DEP submitted a proposed SIP revision to ensure the attainment and maintenance of the 2010 revised SO_2 NAAQS in the area around Mosaic New Wales in Hillsborough and Polk counties, which requests EPA to incorporate into the SIP new SO_2 emission limits and compliance parameters for the Mosaic New Wales and Bartow facilities. Florida DEP stated that this will provide additional weight of evidence to support its designation recommendation.

Response

Florida's State Implementation Plan (SIP) submission and comments regarding the Mosaic New Wales facility do not provide any basis to revisit our above referenced analysis of current conditions for the area around Mosaic Bartow.

7. Comment Specific to Georgia

Comment

To address EPA's concern with modeling submitted previously, Georgia EPD updated the dispersion modeling with 2014-2016 actual emissions from Plant Bowen in Bartow County, corresponding meteorological data, and updated background concentrations. The updated dispersion modeling was conducted in accordance with the final DRR and Modeling Technical Assistance Document (TAD). The updated dispersion modeling was performed using AERMET (v16216) with ADJ_U* and AERMOD (v16216r). Updated modeling and emissions for Plant Bowen in Bartow County, GA. The modeling indicated a maximum design value of 58 ppb.

Response

This comment and the additional modeling analysis are addressed in the TSD for the final designations.

8. Comments Specific to Illinois

8.1. Lake County

Comment

Midwest Generating supports the EPA's intended unclassifiable/attainment designation for Lake County, Illinois.

Response

The EPA acknowledges this comment.

Comment

Midwest Generating commented in regard to a footnote in Section 5.1 in Chapter 12 of the EPA's TSD for the intended designations that noted that "the 2014 NEI indicates that this facility emitted 7,683 tons of SO_2 in 2014. However, this facility is also required to report hourly emissions data to CAMD, and the total of 2014 SO_2 emissions that the facility reported to CAMD was 5,792.4 tons. Illinois modeled the latter amount, which the EPA considers a more accurate value." The commenter notes this discrepancy was reviewed by the Illinois EPA (IEPA) and Midwest Generating in January 2017. Upon review, Midwest Generating discovered an inadvertent input error to the 2014 Air Emissions Report ("AER"). A revised 2014 AER was submitted to the IEPA in January 2017. The SO_2 emissions reported to CAMD are the correct values. The commenter therefore informs the EPA that the discrepancy between the NEI and CAMD emissions for 2014 has been resolved.

Response

We acknowledge this comment and clarification of the reported emissions for that year. Since the EPA predicated its proposed designation on the emission rate that Midwest Generation indicates to be the correct emission rate, and since the EPA received no information that would contradict this information on emissions or otherwise indicate any information that would warrant reanalysis of the appropriate designation for the Lake County, Illinois area, the EPA is relying on the review provided in its TSD for the intended designation for this area in support of the final designation for this area.

8.2. Madison County

Comment

Illinois EPA (IEPA) submitted additional information to show that permits that support the allowable emissions used in the air quality modeling for Madison County, Illinois, are federally enforceable and effective. Attachments to IEPA's letter are intended by IEPA to demonstrate that the elements of the modeling conducted by Illinois for this area are indeed in place, permanent,

and enforceable. Specifically, the attachments demonstrate that the project at Amsted Rail Company, Inc. ("Amsted Rail") for the redirection of emissions from its Arc Furnace 2 baghouse, as addressed in Construction Permit 17060038, has been completed, and the redirection of these emissions is permanent and enforceable. Based on this information, IEPA requests that the final designation be changed from Unclassifiable to Attainment.

Response

These comments are addressed in the TSD for the final designations.

9. Comment Specific to Indiana

9.1. Floyd County

Comment

Indiana Department of Environmental Management (IDEM) commented that U.S. EPA indicated in its TSD for the intended designations that Indiana did not follow the SO_2 nonattainment planning guidance for 30-day average limitations for Louisville Gas and Electric – Mill Creek Generating Station located in Kentucky, for the Floyd County (Gallagher) DRR modeling. This guidance recommends a comparably stringent, upward adjusted 1-hour emission limit be applied to the modeling in place of the permitted 30-day averaging emission limit. In the case of Mill Creek, the Louisville Metro Air Pollution Control District air permitting staff provided the permitted 30-day average emission rate (0.17 lb of SO_2/MMBtu) as well as the conversion to a 1-hour emission rate (0.24 lb of SO_2/MMBtu). The 1-hour emission rate for Mill Creek was modeled by Indiana for its air quality characterization of the surrounding area. Therefore, Indiana believes the characterization of the Mill Creek facility is consistent with the SO_2 nonattainment planning guidance and is representative of relevant emissions in the Floyd County area.

Response

The state indicates that an appropriate adjustment (accounting for use of a 30-day average emission limit) was incorporated into the emission rate modeled for the Louisville Gas & Electric Mill Creek Generating Station. The EPA believes that the 0.17 pounds per million BTU emission limit cited by Indiana is not a federally enforceable limit imposed on this plant. Nevertheless, as explained in the TSD for the intended designations, a limit that is only slightly higher, 0.20 pounds per million BTU, is federally enforceable under the Mercury and Air Toxics Standards. In its TSD for the intended designations, the EPA concluded that modifying Indiana's results to reflect both a 0.20 pounds per million BTU emission limit and adjustment to reflect use of a 30-day average emission limit would yield estimated concentrations that are well below the standard. Indiana is stating that its modeling already reflects an adjustment to reflect use of a 30-day average limit, which would mean that less modification of Indiana's results would be necessary to assess the impact of federally enforceable allowable emissions from Mill Creek, yielding a result that is even more below the standard than the EPA estimated. The EPA has not completed a review of Indiana's adjustment factor (which is also used in Kentucky's Louisville nonattainment area plan), but Indiana's modeling shows that Floyd County would show attainment with any plausible adjustment factor. Therefore, the EPA continues to believe that the Floyd County area is meeting the standard.

9.2. Huntington County

Comment

The Indiana Department of Environmental Management (IDEM) identified several reasons it believes that application of DRR requirements to the Isolatek facility in Huntington, Indiana, is arbitrary and inappropriate:

- Numerous other facilities in Indiana that emit less than 2,000 tons of SO_2 per year nevertheless emit more than Isolatek. The commenter notes the range of SO_2 emission estimates for this facility, and observes that even the highest of these emission estimates is well below 2,000 tons per year.
- The commenter observes that 2,000 tons of SO_2 emissions is "a threshold set by U.S. EPA that *'prioritizes the resources that will be devoted to characterizing air quality near SO_2 sources nationally*'; a threshold that is already on *'the lower end of the range of thresholds*' of sources that have the potential to contribute to violations of the NAAQS, and a threshold that *'strikes a reasonable balance between the need to characterize air quality near sources that have a higher likelihood of contributing to a NAAQS violation and the analytical burden on air agencies*." (Italics added to help distinguish quotations from the EPA's DRR rulemaking (at 80 FR 51061, August 21, 2015) from commenter's statements.)
- The commenter describes two other sources with SO_2 emissions more than Isolatek but less than 2,000 tons per year that have been modeled to have impacts well above the standard. (The commenter did not name these facilities or provide modeling information.)

Response

The purpose of this rulemaking is to determine the appropriate designation for most areas in the country that have not yet been designated, including all remaining areas that have not begun timely operating a new approved SO_2 monitoring network. Thus, irrespective of whether Indiana was subject to air quality characterization requirements for the Isolatek area, the EPA must promulgate a designation for Huntington County, Indiana, based on its evaluation of all available information, including modeling information in the docket for this rulemaking that indicates a violation of the NAAQS in this area.

For this designations rulemaking, for an area without any source having sufficient emissions or otherwise having been judged to warrant air quality characterization, and in the absence of information indicating that the area is violating the standard, the EPA is judging that the area is attaining the standard. However, for Huntington County, Indiana, the EPA has clear evidence that the area is violating the standard, and the EPA has no basis to assume otherwise regarding the air quality. For this reason, it is not relevant to this rulemaking whether or not Isolatek was subject to DRR requirements.

Nevertheless, to be responsive, the EPA is providing the following additional responses to these comments. A key premise of the EPA's DRR is that no single threshold can be established below which there is no potential for contribution to NAAQS violations. While sources with more emissions in general are more likely to cause NAAQS violations than sources with lower emissions, a complex set of factors influence source impacts, "such that many areas with a source or sources that do not exceed the emission threshold might be known to have a high risk of contributing to NAAQS violations." (Also at 80 FR 51061.) By combining partial EPA quotes

(accurately noting that the DRR reflects a threshold) with commenter text (incorrectly implying that this threshold corresponds to a lower end of the range of emission levels that might contribute to violations), the commenter implies precisely the opposite of the EPA's actual views. Indeed, the case of Isolatek illustrates the EPA's views that in fact sources emitting less than 2,000 tons of SO_2 per year can clearly have significant potential to contribute to violations, and this case further illustrates why as a result the EPA elected to provide that either the state or the EPA could choose to identify sources emitting less than 2,000 tons of SO_2 per year as warranting air quality characterization.

The commenter notes the existence of two other sources with SO_2 emissions higher than those of Isolatek but less than 2,000 tons per year that were modeled as having nearby violations. This comment does not speak to whether Huntington County is violating the standard; this comment instead speaks to whether two other areas in Indiana should be designated nonattainment. The EPA has insufficient information about the modeling for these other areas to evaluate whether violations are occurring in these other areas. Nevertheless, the EPA intends to work with the state to evaluate whether additional air quality protections are warranted in these areas.

Comment

The Indiana Department of Environmental Management (IDEM) identified a number of concerns with the modeling analysis that the EPA is relying on to determine air quality in Huntington County, including:

- The analysis "used an older version of AERMOD (14134) instead of the most current version (v16216r)." Similarly, the analysis "used an older version of AERMET (14134) instead of the most current version (v16216r)." In both cases, "This is inconsistent with DRR Modeling Guidance which states that the most current version . . . is required."
- The analysis "used five years (2008 – 2012) of meteorological data as well as non-concurrent emissions data. This is inconsistent with DRR Modeling Guidance, which states that three years of meteorological data concurrent with emissions data should be used."
- The analysis "did not use readily-available adjusted hourly-seasonal SO_2 background for all DRR sources."
- This analysis "did not utilize an adjusted surface friction velocity (ADJ_U*). This became a regulatory option after [this analysis] was conducted."
- This analysis "included source characteristics of the blow chambers/screenhouses, including release heights and vertical/horizontal dimensions of each blow chamber/screenhouse, which are inconsistent with actual source characteristics."
- This analysis "did not characterize the three most recent years of operation."

For these reasons and the reasons discussed above, the commenter recommends that Huntington Township within Huntington County be designated unclassifiable.

Response

The commenter has not addressed the degree of uncertainty associated with the various identified concerns. Adjusting to reflect the current estimated emission rate and to include background

concentrations, the EPA identified the best estimate of current concentrations to be 5,300 µg/m^3 (2,024 ppb). In its TSD for the intended designations for Indiana, the EPA also provided concentration estimates for a range of emission rates, in all cases well over the standard.

The EPA considers AERMOD version 14134 and AERMET 14134 to be acceptable versions for assessing air quality. Furthermore, these two model versions have no significant differences that could yield differences in results that would be sufficiently dramatic as to create the possibility that the 16216r versions of this software would indicate that Huntington County attains the standard.

Similarly, the use of the five years of meteorological data will generally not yield significantly different concentration estimates than the use of three years. A specific examination may be made in this case, by examining year-by-year results from the EPA enforcement modeling analysis and comparing the average of 99th percentile values from three randomly selected years against the five-year average value. At the peak receptor, the average of the results for the three lowest years is 5,162 µg/m^3, only 3 percent lower than the full five-year average. The state has indicated that the facility production rate used in the EPA's best estimate analysis is an appropriate indicator of current production, and the minimal year-to-year variability in results for 2008 to 2012 suggests that use of more current meteorology also would be unlikely to yield significantly different results. While the EPA did not have hourly emissions data available, the use of such data can yield either higher or lower concentration estimates, and the commenter provided no evidence that the difference, in either direction, would be significant.

Because the EPA used a 16.6 µg/m^3 background concentration, the maximum possible degree of overstatement of estimated concentrations is 16.6 µg/m^3, under the implausible situation that the background concentration was zero. Even the use of a zero background concentration would still yield concentration estimates considerably higher than the standard.

The EPA does not require the use of the ADJ_U* option, although the option is now available. In any case, the use of this option is unlikely to yield significantly different results, particularly in comparison to the margin by which Huntington Township is estimated to be violating the standard. Indeed, even combining the various uncertainties identified by the commenter, the concentration in Huntington Township is still likely to be between one and two orders of magnitude higher than the standard. Therefore, the EPA must designate Huntington Township as nonattainment.

9.3. Warrick County

Comment

Indiana Department of Environmental Management (IDEM) submitted new modeling from the source for the Warrick County/Alcoa source area. IDEM also submitted extensive documentation and justification for excluding receptors within the properties of Alcoa and F.B. Culley.

Response

This new IDEM submitted modeling and information is addressed in the TSD for the final designations.

Comment

Sierra Club submitted new modeling for Warrick Alcoa Operations, Alcoa power plant, and F.B. Culley power plant in Warrick County, Indiana. In this analysis, the receptor grid is centered on the Warrick County sources, providing a more-refined characterization of impacts in the area when compared to previously available modeling from Sierra Club. This October 2017 modeling analysis relies on the temporally and seasonably varying background concentration developed by Alcoa's consultant for characterizing SO_2 impacts in the Warrick County area (while the March 2016 analysis from Sierra Club had used the state's temporally and seasonably varying background concentration developed for Posey County). Sierra Club noted that they also adopted the stack configuration for the Warrick Alcoa facility that was suggested by EPA in its review of Sierra Club's March 2016 modeling. In addition, this supplemental modeling analysis incorporates more recent data. Sierra Club modeled both 2013-2015 emissions and 2014-2016 emissions for the Warrick Alcoa and F.B. Culley power plants, as well as 2016 emissions from the Alcoa smelting operation. In addition, Sierra Club modeled both A.B. Brown's actual emissions and the new federally enforceable SO_2 emission limit for that plant. This supplemental analysis shows that Sierra Club's March 2016 modeling showing modeled violations is robust to a number of assumptions. Under every scenario modeled, this supplemental analysis shows modeled violations of the NAAQS. Based on this modeling, Sierra Club supports a Nonattainment designation for Warrick County, Indiana.

Response

This new modeling from Sierra Club is addressed in the TSD for the final designations. However, the EPA would like to clarify it did not suggest a particular stack configuration in its prior review of Sierra Club's 2016 modeling. The EPA merely concluded that, given the magnitude of estimated concentrations, the simplified stack configuration used in the Sierra Club's 2016 modeling was a sufficient approximation and that a more detailed source characterization would be unlikely to yield a finding of attainment. Subsequently, as discussed in the TSD for the final designations, the state has provided modeling information indicating that a significantly different source configuration (involving merging several stacks) yields a more reliable assessment of concentrations.

Comment

Indiana Department of Environmental Management (IDEM) submitted comments disagreeing with several aspects of new modeling submitted by Sierra Club for the area near the Alcoa sources in Warrick County, Indiana, and asserting that new modeling performed by Alcoa and submitted by the state is superior.

Response

The new Sierra Club modeling and the new modeling submitted by the state are assessed in the TSD for the final designations. In addition, the state's comments on the Sierra Club modeling are addressed in the TSD for the final designations.

10. Comments Specific to Iowa

10.1. Linn County

Comment

Iowa DNR provided notes identifying certain information in the chapter for Iowa in the TSD for the intended designations is incorrect and providing corrected information. Ten correction items were listed for Linn County.

Response

The EPA reviewed the information and is in general agreement with the clarifications and corrections provided in the notes. However, none of these clarifications impact the EPA's conclusions or the intended designations for the areas being considered in the Round 3 designations for the state of Iowa. Therefore, the EPA has not revised any designation based on IDNR's clarifications. The TSD for the final designations includes the corrected information.

10.2. Louisa County

Comment

The Iowa Environmental Council noted that EPA is proposing to designate Louisa County as an unclassifiable/attainment area for the 2010 1-Hour Sulfur Dioxide (SO_2) NAAQS, consistent with Iowa's recommendation. However, an attainment area is defined by the Clean Air Act (CAA) as an area that meets the NAAQS or does not contribute to a nearby area that does not meet the NAAQS. CAA § 107(d)(1)(A)(i). IEC believes a designation of unclassifiable/attainment is inconsistent with the modeled assessments submitted to EPA for the Muscatine SO_2 nonattainment area, and for the Louisa Generating Station. In its Revised Technical Support Document for the Round 3 SO_2 Designations and Data Requirements Rule, Iowa DNR (IDNR) discusses the results of its modeling done to characterize SO_2 emissions from the Louisa Generating Station (LGS) in Louisa County. Iowa DNR modeled emissions from LGS using the same receptor grid as for the Muscatine SO_2 nonattainment plan, with additional receptors around the LGS plant; IDNR's modeling grid for the Muscatine nonattainment plan stopped at the Muscatine County line, just to the north of the facility. IDNR's Round 3 modeling results predicted a maximum design value of 186.86 $\mu g/m^3$ without background concentrations added in. Using a background concentration of 7 $\mu g/m^3$, the modeling predicted a maximum concentration of 194 $\mu g/m^3$, just below the SO_2 1-hour NAAQS of 196 $\mu g/m^3$. However, this background concentration is inconsistent with, and much lower than, the background concentration of 27.44 $\mu g/m^3$ used in the Muscatine nonattainment SIP modeling, which explicitly modeled emissions from LGS as well as the other three sources explicitly modeled in both analyses: Grain Processing Corporation, Muscatine Power and Water, and Monsanto. Given the fact that, according to EPA, the peak concentrations of the Round 3 modeling results for LGS are located within the Muscatine nonattainment area, it is not clear why the background concentration value used by IDNR in its Round 3 modeling to characterize impacts from LGS

varies so significantly from the earlier analysis. The lower value used in the Round 3 modeling is based on monitoring data from the Lake Sugemea monitoring site (AQS site ID # 19177006) in Van Buren County, approximately 100 km to the southwest of LGS. This data cannot be considered representative: according to IDNR, the Lake Sugemea monitor is "impacted by less SO_2 emissions than need to be represented by the background for the nonattainment area." With the more representative background concentration of 27.44 $\mu g/m^3$ added in, the highest design value of the Round 3 modeling for LGS occurring in the Muscatine nonattainment area would be 214.3 $\mu g/m^3$, well above the SO_2 NAAQS.

Response

This comment is fully addressed in the TSD for the final designations.

The EPA notes here for clarity that the SIP for the Muscatine nonattainment area did not use a fixed background concentration of 27.44 $\mu g/m^3$ as stated by the commenter. The SIP used a "Tier 2" approach in which the background concentrations added to the air quality modeling results varied by time of day and season of the year. The SIP presented a value of 10.5 ppb (which commenter has correctly converted to a value of 27.44 $\mu g/m^3$), which it referred to it as a "default' background concentration, but only for purposes of comparison to the range of the background concentrations that were actually used in the attainment demonstration. The 10.5 ppb value is equal to the average design value for six locations in Iowa. See page 24-26 of the SIP, which has been added to the docket for the Round 3 designations.

Comment

The Iowa Environmental Council noted that EPA's draft SO_2 NAAQS Designations Modeling Technical Assistance Document ("Modeling TAD") recommends using actual emissions when modeling sources for the purposes of SO_2 NAAQS designations and characterizing sources as required by the Data Requirements Rule (DRR). This is because, when used in the context of designations, modeling is intended to address current actual air quality; modeling is used in lieu of, and to simulate, an air monitor. EPA acknowledges in the Modeling TAD that air agencies may, in some instances, prefer to use maximum allowable emissions, or potential to emit (PTE) emissions instead. In that case, EPA's guidance provides that, if the modeling analysis using PTE emissions results in predicted nonattainment, further modeling should be conducted using actual emissions. However, IDNR used neither of these recommended approaches, but instead invented its own hybrid approach in which PTE emission inputs were used for all sources but one. The analysis modeled PTE emissions for LGS and emission rates based on revised emission limits in construction permits included in the nonattainment SIP for two sources in the nonattainment area (GPC and MPW), but not for the third, Monsanto. For Monsanto, IDNR included actual emissions of 543 (2012), 469 (2013), and 502 (2014), far below the maximum allowed emissions of 1,196 tons per year (tpy). If the maximum permitted allowable emission rate for Monsanto had been modeled, it seems highly likely that the modeled assessment would not have resulted in attainment of the SO_2 NAAQS. This approach is clearly inconsistent with the guidance in the Modeling TAD, and with the Data Requirements Rule, which distinguishes in its provisions between modeling using actual emissions data and modeling using PTE—a distinction impossible to make when modeling uses both kinds of inputs. EPA should require

IDNR to resubmit a modeling analysis and designation recommendation using either actual emissions or PTE, but not both. EPA should not rely on a modeled result using this inconsistent, hybrid approach to designate Louisa County as unclassifiable/attainment.

Response

This comment is addressed in the TSD for the final designations.

Comment

Iowa DNR provided notes identifying certain information in the chapter for Iowa in the TSD for the intended designations is incorrect and providing corrected information. One correction item was listed for Louisa County.

Response

The EPA reviewed the information and is in general agreement with the clarifications and corrections provided in the notes. However, none of these clarifications impact the EPA's conclusions or the intended designations for the areas being considered in the Round 3 designations for the state of Iowa. Therefore, the EPA has not revised any designation based on IDNR's clarifications. The TSD for the final designations includes the corrected information.

10.3. Pottawattamie County

Comment

Iowa DNR provided notes identifying certain information in the chapter for Iowa in the TSD for the intended designations is incorrect and providing corrected information. One correction item was listed for Pottawattamie County.

Response

The EPA reviewed the information and is in general agreement with the clarifications and corrections provided in the notes. However, none of these clarifications impact the EPA's conclusions or the intended designations for the areas being considered in the Round 3 designations for the state of Iowa. Therefore, the EPA has not revised any designation based on IDNR's clarifications. The TSD for the final designations includes the corrected information.

11. Comments specific to Kentucky

Comment

The commenter (Kentucky Energy and Environment Cabinet) states that the intended unclassifiable designation for the portion of Henderson County is not appropriate and does not adhere to the CAA as it does not depend on reliable data as stated by the EPA. The commenter goes on to state that the Sierra Club's modeling does not adhere to the requirements and guidance provided in 40 CFR part 51, Appendix W, which the EPA requires states to strictly follow. The commenter disagrees with the EPA's intended designation and provided information to support its initial recommendation of attainment including an analysis of the Sierra Club's air dispersion modeling and quality-assured ambient air monitoring data collected at the Baskett SO_2 monitor in the partial Henderson County Area. Lastly, the commenter requested that EPA designate the northern portion of Henderson County, Kentucky, as attainment for the 2010 SO_2 NAAQS.

Response

The EPA appreciates the commenter's observations of Sierra Club's 2016 modeling analysis that characterizes the SO_2 concentrations in the vicinity of the Alcoa Power Plant and Alcoa Smelting operations in Warrick County, Indiana, and the northern portion of Henderson County, Kentucky. The EPA considers and reviews all relevant information submitted to the agency to inform the designation process, including information received through the public participation process. Additionally, any modeling analyses submitted to the EPA to inform SO_2 designations are evaluated based on the regulatory requirements for modeling codified in Appendix W and the agency's modeling technical assistance document to ensure analyses are appropriately characterizing SO_2 concentrations as well as all other technical information.

The EPA has now received and evaluated three separate modeling analyses for the Warrick County, Indiana, and Henderson County, Kentucky, areas including from the State of Indiana and two analyses from the Sierra Club (dated 2016 and 2017, respectively) characterizing SO_2 concentrations for the area containing the two Alcoa facilities. After careful review of all three modeling analyses, the EPA observed that all three analyses may be considered to have been conducted reasonably in accordance with the Modeling TAD but finds that the Indiana analysis is the most reliable to characterize air quality in the vicinity of the two Alcoa facilities. The EPA notes these analyses have significant differences and yield significantly different results. The Indiana analysis shows modeled attainment of the SO_2 NAAQS in Warrick County, Indiana, and no modeled violations in the northern portion of Henderson County. The EPA also notes that with respect to the Henderson County, Kentucky, partial area, the agency still believes that the Sierra Club 2016 modeling analysis provided for uncertainty regarding the location and nature of any expected violations with respect to the modeled impacts in the portions of Henderson County documented in the TSD for our intended designations, and observes that the commenter agrees with the EPA's determination. For more detailed information on the EPA's review of these modeling analyses and rationale for final designations, please refer to the TSD for these final designations, specifically Chapter 13 addressing Indiana. The EPA mentions in that chapter that the agency is relying on the modeling from Indiana for

this area which shows modeled attainment. Consequently, the EPA believes that the Commonwealth's comments specific to the Sierra Club's 2016 modeling are not germane to the EPA's final determination of attainment for this area.

Additionally, the EPA appreciates the commenter's information regarding the attaining Baskett SO_2 monitor and recognizes that this air quality information aligns with the EPA's factor analysis for the monitor in the TSD for our intended designations indicating the monitor has historic and current attaining SO_2 data.

As further described in Chapter 15 (specific to Kentucky) of the TSD for our final designations, the EPA is designating the portion of Henderson County (comprised of 2016 U.S. Census Blocks 211010207013, 211010207014, 211010207024, and 218211010208004) as attainment/unclassifiable, consistent with Kentucky's attainment recommendation for this portion of the County.

12. Comments Specific to Louisiana

Comment

Louisiana Generating stated that the EPA's TSD for the intended designations for areas in Louisiana clarifies that the designation of East Baton Rouge Parish will not be based on the modeling submitted for Pointe Coupee Parish; rather it will be based on data from a monitor deployed for the purpose of designating the attainment status of East Baton Rouge Parish. Therefore, we do not agree that the possibility that emissions from Big Cajun II contribute to modeled violations near Oxbow (in East Baton Rouge Parish) has any bearing on the designation for Pointe Coupee Parish where Big Cajun II Generating Station is located. EPA's expressed concern over the contribution that emissions from Big Cajun II may have to potential violations of the 1-hour SO_2 standard in East Baton Rouge Parish should have no bearing on the designation for Pointe Coupee Parish since a monitor has been set out to collect data in support of the Round 4 designation process required for East Baton Rouge Parish.

Response

The EPA acknowledges the commenters statements. The EPA agrees it gave states the option to choose monitoring to fulfill the characterization requirements of the DRR. Where a state elected to install and began timely operating a new monitoring network meeting EPA specifications outlined in the DRR, the EPA will use the data being collected at these new monitoring networks as the basis for determining attainment status of these areas. A full three-year design value for comparison to the NAAQS will not be available until 2020. However, for areas that did not begin timely operation of a new monitoring network must be designated by the EPA by December 31, 2017. For these areas, that were required to be characterized under 40 CFR 51.1203(c) or (d) the EPA must determine whether available information indicates the area meets or does not meet the NAAQS or indicates the area contributes or does not contribute to ambient air quality in a nearby area that does not meet the NAAQS. As discussed in the TSD for this final action, the available information for Pointe Coupee Parish indicates the area meets the NAAQS and does not indicate the area contributes to a nearby area that does not meet the NAAQS. The previous modeling results for receptors in East Baton Rouge Parish was flawed and inconclusive as to whether there were modeled nonattainment values. Specifically, the East Baton Rouge Parish cannot yet be judged as meeting or not meeting the NAAQS as the EPA is reserving any judgment on the attainment status of these areas to be designated in Round 4 until such time that a full three-year design value is available for these areas.

Comment

Louisiana Generating submitted an analysis of emissions data to support a conclusion that an adjustment factor of 1.6 is a conservative way to adjust the permitted emissions limit for Big Cajun II in Pointe Coupee Parish, Louisiana, that is based on a 30-day averaging period into an allowable hourly emission factor (lbs/MMBTU), and submitted new air quality modeling using an hourly emission rate with the 1.6 multiplier instead of a 1.2 multiplier that was previously submitted. The new modeling with the higher emissions shows attainment in Pointe Coupee Parish. The new modeling did not include receptors outside of Pointe Coupee Parish, consistent

with Louisiana Generating's position that the designation for Pointe Coupee Parish should not depend on any information about East Baton Rouge Parish, which will be designated based on monitoring data in Round 4. Louisiana Generating disagrees with designation of Pointe Coupee Parish as unclassifiable and supports a designation of unclassifiable/attainment.'

Response

The emissions analysis and new modeling submitted by Louisiana Generating is addressed in the TSD for the final designations. The comment regarding the relevance of information regarding impacts from Big Cajun II in East Baton Rouge Parish is addressed in this RTC in the response to immediately preceding comment from Louisiana Generating. EPA is finalizing a designation of attainment/unclassifiable, not unclassifiable as proposed based on the new information and analysis included in the TSD for this action.

13. Comments Specific to Minnesota

13.1. Goodhue County

Comment

The Minnesota Pollution Control Agency (MPCA) requested that the EPA designate Goodhue County as "unclassifiable" and provided additional information and documentation to support this requested designation. The new information describes steps that have been taken to lease, fence, and preclude public access to an area near USG Interiors LLC Red Wing (USG) within which modeling receptors indicated NAAQS violations. MPCA states that in light of these steps this area should not be considered ambient air and therefore Goodhue County should not be designated nonattainment.

The MPCA submitted information about steps that USG has taken to lease and restrict public access to land near the USG facility in Goodhue County, Minnesota. This information was also submitted to the EPA by USG.

Response

This comment and supporting information are discussed in detail in the Goodhue County, Minnesota portion of the TSD for these final designations, specifically section 2 of Chapter 20.

Comment

USG commented that USG and the MPCA have agreed upon a preclusion strategy for the previously modeled exceedance area that includes a lease with the landowner, natural barriers, fencing, and signage. Further, USG has entered into an Administrative Order with MPCA to provide certainty regarding public preclusion of the area.

Response

This comment and supporting information are discussed in detail in the Goodhue County, Minnesota portion of the TSD for these final designations, specifically section 2 of Chapter 20.

Comment

USG commented to cite Section 1, Page 2 of the chapter for Minnesota of the TSD for the intended designations – "An unclassifiable area is defined by EPA as an area that either: (1) was required to be characterized by the state under 40 CFR 51.1203(c) or (d), has not been previously designated, and on the basis of available information cannot be classified as either: (i) meeting or not meeting the 2010 SO_2 NAAQS, or (ii) contributing or not contributing to ambient air quality in a nearby area that does not meet the NAAQS; or (2) was not required to be characterized under 40 CFR 51.1203(c) or (d) and EPA does have available information including (but not limited to) appropriate modeling analyses and/or monitoring data that suggests that the area may

(i) not be meeting the NAAQS, or (ii) contribute to ambient air quality in a nearby area that does not meet the NAAQS."

The commenter stated that EPA's (2) condition regarding the circumstances for an unclassifiable designation appears to be in error because if EPA "does have available information" then it should have a basis for designation as nonattainment or attainment/unclassifiable. USG believes that EPA meant "does not have available information," and this would lead to an unclassifiable designation. Further, in the circumstance for Goodhue County, EPA does not have sufficient evidence to designate the area nonattainment and should designate the area as attainment/unclassifiable.

Response

While the EPA disagrees that there was an error in the unclassifiable definition, we have simplified our definition of an unclassifiable area as it applies to SO_2 designations for this final action. As described in Chapter 1 of the TSD for the final designations, 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. For the Goodhue County area, the EPA is agreeing with Minnesota's unclassifiable recommendation because although public access has been adequately precluded from the area containing previously model-predicted violating receptors; because of specific uncertainties in the modeling provided by USG, as detailed in the TSD for our intended designations and summarized in the TSD for our final designations for Minnesota, the EPA cannot determine whether the area meets the definition of an attainment/unclassifiable area. The classification for the Goodhue County area and the reasoning behind the classification are discussed in more detail in the Goodhue County, Minnesota, portion of the TSD for our final designations, specifically section 2 of Chapter 20.

Comment

USG Interiors noted statements in the chapter for Minnesota of the TSD for our intended designations regarding the schedule and scope of the Round 3 designations and the basis for these in the consent decree. It further notes that upon receipt of the Notice of Violation (NOV) from EPA Region V, USG held a meeting with the agency on February 10, 2016. At this meeting, USG requested information about EPA's requirements for making an air quality monitoring demonstration that the area was not in violation of the standard as alleged in the NOV. The EPA indicated that they would need to consider those requirements and respond to USG. That response never came even when asked again as part of a January 10, 2017, meeting with the agency on the same subject. Therefore, the EPA's characterization in the TSD that it must designate areas that are not "timely operating the EPA-approved and valid monitoring networks" appears disingenuous. USG asked that the agency provide specific guidance on the monitoring network that could have allowed USG to verify the area in Goodhue County near USG was in attainment using the best available tool – air quality monitoring - before the January 2017 deadline in the DRR.

USG further noted in the last statement on page 4 of the TSD for intended designations for Minnesota, the Red Wing area is an "other area not specifically required to be characterized by the state under the DRR." This appears arbitrary as the USG facility has SO_2 emissions that are less than other sources in the state of Minnesota and throughout the country that were not modeled or proposed to be designated nonattainment. This seems contradictory to the treatment of sources under the current DRR regulation (i.e., no requirement to model sources with less than 2,000 tons per year SO_2 emissions).

Response

USG is describing conversations about whether enforcement action based on modeled violations could be deferred while monitoring data was collected. The TSD for our intended designations, as cited by USG, addresses a different issue, whether monitoring data collection had begun by January 1, 2017, in absence of which the EPA is subject to a consent order to sign final designations for the area by December 31, 2017. Irrespective of what questions USG asked the EPA regarding the enforcement case, the EPA must designate Goodhue County by December 31, 2017.

For the source size threshold portion of the comment, during a designations process, the EPA considers all available information, regardless of the size of the source. The EPA had modeling information showing a violation of the NAAQS, and the EPA has fulfilled its obligation to consider this information.

Comment

USG believes the use of modeled actual emissions for SO_2 NAAQS designations is not the most technically credible way to perform designations. Designations are best made based on representative ambient monitoring data. Second, USG was not given the opportunity to provide comprehensive modeling analyses consistent with the EPA's DRR due to EPA's enforcement action against the facility and the lack of identification by EPA to treat the facility under the DRR. It is important to note that the USG facility in Walworth, Wisconsin, was identified by EPA as being required to model under the DRR, and was able to provide a modeled solution to show that the area should be designated attainment/unclassifiable through working with the Wisconsin Department of Natural Resources. The inconsistent treatment with respect to the SO_2 designation process between the two facilities is another example of the arbitrary treatment of USG – Red Wing.

Ultimately, the analyses submitted by USG to defend against the NOV (provided in May 2017) were designed to provide that the facility was not causing an immediate impact on health in the community largely based on the EPA analyses with some limited refinements including a first-cut actual emission inventory and more representative meteorological data. If USG had any reason to believe that the EPA was going to use the modeling data to support a nonattainment designation, more rigorous analyses would have been conducted that likely would have shown modeled concentrations less than the NAAQS. These analyses would have included additional refinements to the actual emission inventory data and stack parameters along with other

appropriate modeling tools including the use of another EPA Guideline on Air Quality Models preferred model for areas with complex terrain, CTDMPlus.

The characterization of the EPA enforcement modeling showing a violation of the standard is incorrect. This statement is the basis for EPA's on-going enforcement action against USG. The modeling conducted by EPA was based on screening analyses conducted by MPCA in 2011 with the changes including the use of a maximum stack test hourly emission rate from five years of testing for the cupola and blow chamber stacks and assuming 8,760 hours per year of operation of both cupolas at USG – Red Wing. This is not consistent with the USG operation as the cupolas operate in a continuous batch mode with considerable downtime between production runs and the cupolas do not always operate simultaneously. Further, the modeling did not include any updates to the meteorological data, modeled release parameters, building downwash information at the facility, or the receptor network from the original MPCA screening modeling. Ultimately, the analyses provided by USG were only developed to show the completely erroneous nature of the enforcement modeling completed by EPA to support the alleged violation in the NOV (the EPA modeling predicted a concentration of over 900 $\mu g/m^3$ and EPA suggested a finding of immediate public health concerns). To that end, effort was not expended to completely correct all the erroneous EPA assumptions. USG only updated the analyses to provide different, more representative meteorological data, a variable background concentration from a representative monitor (i.e., more conservative than EPA's analyses which included no background), a first-cut of updated emissions based on stack testing emission factors (lb/ton melt) for the cupola and blow chamber stacks, and emissions from the natural gas-fired plant heating boiler (i.e., conservative compared to EPA analysis that did not include the boiler). If USG had been given any indication that the modeling was intended to be used for a nonattainment designation using "DRR-style" analyses, additional effort would have been conducted to refine the modeling inputs to reflect actual operating circumstances without conservatism imbedded in the calculations of the inventory as part of the NOV-defense modeling. In other words, USG made assumptions during the inventory development that contributed to higher emissions because the analyses would then be characterized as "highly conservative" for the purpose of their defense. Therefore, USG's position is that the modeling EPA is using to designate Goodhue County is not appropriately refined for that purpose and should not be considered as evidence that the ambient air in Goodhue County is violating the 1-hour SO_2 NAAQS.

Response

The EPA and states have a long history of using modeling in the context of SO_2 designations and EPA believes it serves as an appropriate surrogate for monitoring at an exhaustive network of receptors given the infeasibility of monitoring at an exhaustive network of sites. At the time of designations, the EPA uses all available information, regardless of the source's status under the DRR. The EPA acknowledges USG's comments and agrees with USG that improvements to the May 2017 modeling for USG may have been possible; however, neither USG or any other party provided updated modeling information during the public comment period, and therefore the May 2017 modeling report is the best available information for characterization of air quality in the Goodhue County area.

Comment

USG Interiors stated that while a nonattainment designation is not appropriate for the area near USG-Red Wing in Goodhue County, Minnesota, proposing to designate the entire county is dramatically over-reaching based on the (invalid) predicted violation of the standard. Even if the modeling was sufficient and if USG was not precluding public access to the predicted violation area, EPA has no credible basis for designating the entire county. This area is defined by two receptor locations separated by 20 m on the top of a ridge within 200 m of the USG plant stacks. To classify an entire county nonattainment based on a very small area with a predicted violation is not technically accurate and does not follow the Clean Air Act which requires designation of areas where a violation occurs and areas that contain sources which contribute to the violation. To remain consistent with the statute, the EPA should propose the designation to include the smallest area necessary pursuant to the legal basis in the state being designated (e.g., County, Township, Section, Range). This would eliminate unintended consequences including existing or new SO_2 emission sources within that county not contributing being required to undergo nonattainment permitting. Further, this practice should be applied to all proposed nonattainment areas. The EPA should not use the USG modeling to designate Goodhue County nonattainment. However, if the EPA chooses to ignore this fact, the area designated should be dramatically reduced as indicated by the statement that EPA should use the modeled area as "relevant to the selection of the boundaries."

Response

Minnesota recommended that Goodhue County as a whole be designated unclassifiable. The EPA has received no information to support a different boundary for the area that warrants being designated unclassifiable. Therefore, the EPA is promulgating the state's recommended unclassifiable area. For a detailed discussion of the Goodhue County classification and boundary, see Section 2 (addressing Goodhue county) in Chapter 20 of the TSD for our final designations.

Comment

USG Interiors stated that EPA is correct that the modeling guidance (i.e., TAD) states that AERMOD should be used. However, the guidance is in apparent conflict with the relevant federal regulation (40 CFR Part 51, Appendix W – Guideline on Air Quality Models) for the selection of appropriate models to be used. The Guideline provides two different models as preferred models in areas that deal with complex terrain - defined in the Guideline as terrain with higher elevations than the stacks being modeled. As noted by EPA in Section 3.3.8 of the TSD for intended designations for Minnesota, the circumstance for USG – Red Wing is one with complex terrain. Within Appendix W, AERMOD and CTDMPlus are considered preferred models and do not require any justification for use as part of a regulatory analyses for complex terrain circumstances. The language provided by EPA as part of the TAD implies a different requirement in Appendix W regarding approval of alternative models (i.e., using a model that is scientifically equivalent or better for a modeled situation, but is not "preferred"). This comment is intended to point out this conflict as USG would have investigated the use of the CTDMPlus model for the purpose of a designation analyses if notified that such analyses were necessary and will likely do so in any future regulatory analyses necessary for the facility.

Response

Although AERMOD is the preferred model in the Modeling TAD and is more frequently used, USG is correct that CTDMPlus is a regulatory model available for use via Appendix W. The TAD language regarding alternative models is not in conflict with Appendix W because CTDMPlus is not an alternative model.

Comment

USG Interiors stated that as noted in both USG modeling reports, the receptor network included 5,444 receptors, not 5,500 receptors as stated in EPA's intended TSD chapter for Minnesota.

USG Interiors stated that EPA's statement regarding USG consistency of receptor placement with the Modeling TAD is simply incorrect. USG did not construct the receptor network for these modeling exercises. USG used EPA's enforcement modeling receptor network that was taken from the MPCA screening modeling and removed receptors that were located on USG – Red Wing property. Also, as an indication that this effort was not designed to provide DRR-style information for designations, USG did not eliminate over-water receptors as highlighted in Section 3.3 of both USG modeling reports and EPA's statement regarding Section 4.2 of the Modeling TAD. This is consistent with previous statements that USG did not provide analyses for nonattainment designation purposes.

USG Interiors stated that it was not conducting DRR-style nonattainment designation analyses. Therefore, there was no consideration of external sources as the EPA modeling analyses did not contain external sources. Further, the sources within the immediate area are small SO_2 emitters and would likely not contribute to SO_2 concentrations near the USG - Red Wing facility.

Response

The EPA concurs that the modeling reports state that there were 5,444 receptors, not 5,500. This is reflected in the TSD for the final designations. The EPA understands that USG used EPA's receptor grid but excluded receptors over USG's property. The descriptions of over water receptors and nearby sources was a consistent description for assessing receptor grids for all areas in which the EPA reviewed modeling. The EPA did not have specific concerns with respect to USG's receptor placement and concluded in the TSD for our intended designations that "the EPA finds the receptor grid spacing and excluded receptors to be appropriate for characterizing the ambient air quality near this facility."

Comment

USG commented that EPA's characterization of the USG modeling analyses in Chapter 20 (specific to Minnesota) of the TSD for the intended designations is not completely accurate. The use of the actual stack heights is not in question as the stacks are all less than the Good Engineering Practice (GEP) stack heights (i.e., there was no reason to change the heights). Also, USG did not verify the source's building layout and locations or source locations as it simply

took the information from the EPA modeling analyses. Ultimately, USG believes BPIPPRM was utilized, but it did not perform the analyses as part of this modeling exercise.

Response

The EPA agrees that the use of actual stack heights at USG is appropriate because the stacks are less than GEP stack heights. It is also appropriate with USG's use of actual emissions. The EPA's statement was not inaccurate; both statements support when it is appropriate to use actual stack heights. USG stated in the May 1, 2017, modeling report that source location and stack parameters were based on MPCA/EPA input files. Those are the same files that the EPA evaluated for the Goodhue County portion of the TSD for our intended designations.

Comment

USG Interiors commented that a statement in Chapter 20 (specific to Minnesota) of the TSD for our intended designations regarding the use of allowable versus actual emissions is potentially misleading as to the acceptable use of allowable emissions for a designation. Particularly, Section 5.4 of the Modeling TAD provides the following, "States may find that use of allowable or PTE emissions is simpler and may show that an area would attain the standard with those conservative assumptions. (Note, if the modeling based on allowable emissions does not show attainment, then use of actual emissions should be conducted.) An air agency may choose to follow this type of approach if a conservative analysis of this type would still indicate attainment in the area of interest. When using allowable emissions, the modeling exercise is no longer attempting to mimic a monitor but becomes more like a SIP or PSD/NSR application." This TAD statement is not repeated in the TSD. This type of omission from the TSD is problematic especially in a circumstance like this one where EPA has taken an analysis conducted for a different purpose and is trying to use it to justify a nonattainment designation.

Response

The EPA acknowledges that the full statement in the TAD as cited by the commenter makes it clearer that the use of allowable emissions is a conservative approach and that modeling based on allowable emissions may not be sufficient to establish that a NAAQS violation is present. The EPA's intended and final designations for Goodhue County and other areas are consistent with the full statement in the TSD. The modeling for Goodhue County on which the final designation is based used actual emissions, so there is no issue of how results from modeling of allowable emissions should be applied to the designation of that county.

Comment

USG Interiors commented in response to a statement by the EPA in Chapter 20 (specific to Minnesota) of the TSD for the intended designations that actual emissions were used, "is correct in its simplest form, but the actual emissions calculated for inclusion in the analyses were conservatively estimated to provide a worst-case view of the emissions." USG states that this was to be conservative for the purposes of defending against the NOV. USG demonstrated this in the table below.

Year	MPCA submittal (TPY)	Modeled Inventory (TPY)	EPA TSD (TPY)
2014	434.2	482.5	451.6
2015	441.9	499.6	527.2
2016	404.1	460.0	464.9

USG explained that "the information within the EPA TSD was obtained from the May 1, 2017, modeling report but uses incorrect values for the modeled emission inventory. The values reported in the TSD were based on the year-specific stack test emission factors (i.e., 2014 stack test emission factor multiplied by the 2014 throughput information) while the modeled emission inventory used the average of the 2014-16 stack test emission factors multiplied by each year's throughput to provide for the best approximation of the emissions over the three-year period."

USG states that if they were following the modeling TAD per section 5.2.4, about mass conservation of emissions, this discrepancy would have been resolved. Also, USG states that they would have resolved this if they were contacted before the proposed designation.

USG also states that the EPA does not accurately characterize the stack parameter information for the USG cupola stack. EPA had stated that the stack parameter and velocity were held constant. However, as described in the May 2017 modeling report as described by the EPA "In addition to the variable emission rates for the cupola stack, the hourly afterburner stack temperature was used to provide a representative temperature for operating hours in the AERMOD input file." USG also stated that "EPA agrees that the background concentrations were appropriate and then says it does not have enough information to agree with USG on the variable background concentrations" and that "this illustrates another lack of clarity on the part of the agency." USG stated that "these mischaracterizations lead USG to believe that EPA did not fully understand the modeling conducted by USG and should preclude them from using it as evidence for the designation of Goodhue County."

Response

The EPA disagrees that a conservative calculation of actual emissions makes the modeling inappropriate for use in designations. Conservatism in emissions calculations is always acceptable and the EPA would not dismiss the best available information for an area because of it. USG was made aware in advance that their modeling was being used for designations purposes. USG did not use the time prior to or during the public comment period to refine emissions or provide updated modeling analyses. Indeed, the fact that USG commented on the EPA's intended designations demonstrates that USG was aware of its opportunity to offer improved information. The EPA concurs with the correction to the stack parameters. For the background concentrations, the EPA was not being inconsistent; the EPA believed that the approach described in the USG modeling report was appropriate, but stated that it could not verify the actual values used because the modeling files were not provided to the EPA. The EPA

found the available modeled information sufficiently credible to warrant determining that the potential exists for violations in Goodhue County.

Comment

USG Interiors stated that the details of the meteorological processing and the other questions that the EPA raised throughout Chapter 20 (specific to Minnesota) of the TSD for the intended designations regarding choices made by USG regarding meteorological inputs were never brought to USG's attention. To that end, it is important to note that as part of the July 2016 letter that accompanied the modeling report, USG stated the following, "First, USG encourages the modeling experts from USG and the EPA to meet to further discuss their findings and analysis. USG welcomes discussions with EPA regarding the enclosed modeling report prepared by Barr and the modeling work that the EPA has performed to date." No acknowledgement of this request was ever received from EPA. In addition, page 17 of the USG modeling report provides, "The modeling and supporting files used to develop the results provided as part of this updated report can be made available upon request." No such request was received from the EPA.

Further, the purpose of the USG meteorological analyses was to provide a more representative data set than the Minneapolis/St. Paul International Airport that was used by EPA as part of its modeling. This NWS station has surface characteristics that are decidedly dissimilar compared to Red Wing as illustrated in the USG modeling reports and is not located in an east-west river valley like the USG Red Wing facility. Ultimately, USG does not consider the Minneapolis data representative of the Red Wing area for air dispersion modeling.

Response

The EPA must promulgate a designation for Goodhue County irrespective of whether the EPA acknowledged any requests from USG and irrespective of whether the EPA requested any modeling files. The commenter clearly recognized the opportunity to provide additional information for the EPA's consideration, and the EPA is now making its determination based on all available information. In absence of further information from the commenter or from elsewhere, the EPA concludes that the uncertainties in applicable meteorology due to the use of a significant set of insufficiently justified prognostic data leaves significant uncertainties as to air quality in Goodhue County.

Comment

USG Interiors noted that although Chapter 20 (specific to Minnesota) of the TSD for the intended designations states that, "While USG indicated that they used AERMAP to generate the receptor elevations, no details regarding the inputs to AERMAP were provided to the EPA," USG did not mention the use of AERMAP in either monitoring report, and that they used EPA modeling files for elevations.

Response

The EPA appreciates the clarification that USG used the EPA supplied terrain inputs generated using AERMAP.

Comment

USG stated that Table 3 of Chapter 20 (specific to Minnesota) of the TSD for the intended designations contains inaccurate information, specifically the number of total receptors and that for emissions type, were EPA stated "Actual" it should be "Conservative approximation of actual; not consistent with Modeling TSD".

USG Interiors stated that Table 4 in the TSD chapter for Minnesota provides EPA's view of the level of the NAAQS when comparing to modeled concentrations. The EPA contends that the standard is 196.4 micrograms per cubic meter ($\mu g/m^3$) based on 75 parts per billion (the level of the standard) and a conversion factor of 2.619 $\mu g/m^3$ per ppb. According to 40 CFR 50.17(b), the 1-hour primary SO_2 standard is met at an ambient monitoring site when the three-year average of the annual (99th percentile) of the maximum daily 1-hour concentrations is less than or equal to 75 parts per billion (ppb), as determined in accordance with 40 CFR part 50, appendix T. However, according to 40 CFR Appendix T (4)(c), Rounding Conventions for the 1-hour Primary SO_2 NAAQS, the 1-hour primary standard design value is calculated and then rounded to the nearest whole number or 1 ppb (decimals 0.5 and greater are rounded to the nearest whole number, and any decimal lower than 0.5 is rounded down to the nearest whole number). This means that a concentration of 75.4 ppb is still in attainment when compared to the 1-hour standard. Using the conversion applied by EPA, this is equivalent to 197.4 $\mu g/m^3$; not 196.4 $\mu g/m^3$ as stated in the EPA's TSD for the intended designations. In the past, the EPA has argued that the level of the standard for modeling purposes is the exact number in the corresponding regulation [i.e., 40 CFR 50.17(b) - 75 ppb]. USG generally disagrees with this argument as the level of the standard is specified by all the applicable regulations (including the calculation and specificity of the level). Further, it is especially troubling given the use of the modeling as a direct surrogate for monitoring to designate areas characterized under the SO_2 DRR (i.e., the model is being used to replicate monitored values). Therefore, the model should not be compared to a different level of the standard than the "monitor."

Response

As stated previously, the EPA concurs with the correction to the number of modeled receptors. A conservative approximation of actuals is in accordance with the Modeling TAD, especially where there are no continuous emissions monitoring systems. The rounding regulation that USG Interiors references only applies to monitoring data. The question in using modeled information is whether the best estimated concentration is above or below the standard. While the EPA agrees modeling can be a useful tool when used properly as a surrogate for monitoring, that does not mean the regulations that exist for monitoring can be interpreted to apply to modeling.

Comment

USG Interiors commented that the EPA's characterization of the modeling conducted for enforcement as relevant to the designation process is inappropriate. USG states that the approach used by EPA was inconsistent with the Modeling TAD. USG states that "EPA does not recognize the difference between more closely following and actually following the Modeling TAD" and the enforcement modeling is irrelevant to designations and should not have been mentioned. USG also states that Red Wing and Walworth should have been given equal treatment in regards to the Data Requirements Rule.

Response

The EPA considers all relevant information at the time of designations including any monitoring information and any modeling information. This is regardless of a source's applicability to characterization requirements under the Data Requirements Rule. In considering all information, the EPA does not prematurely decide the relevancy of the information. The EPA reached the same conclusion as USG that the USG modeling was a better representation of current air quality in the area than the EPA enforcement modeling. This conclusion was appropriate to lay out in the TSD for our intended designations to show transparency that all information was considered.

13.2. Sherburne County

Comment

The Minnesota Pollution Control Agency (MPCA) commented in support of the EPA's intended designation of "unclassifiable/ attainment" for Sherburne County, Minnesota. However, the MPCA disagrees with the EPA's characterization of some of the modeling files in Chapter 20 (specific to Minnesota) of the TSD for the intended designations, which the agency relied upon for the designation. MPCA provided additional explanation of certain details of its modeling for Sherburne County. Specifically, MPCA references that they did in fact use AERSURFACE files centered on the NWS site and not the facility as was stated in the TSD for intended designations. MPCA also provided the version of AERMINUTE that was used since the TSD for the intended designations had stated that was unclear.

Response

The EPA concurs with MPCA's corrections to EPA's assessment of the Sherburne County modeling in the TSD for our intended designations and agrees that these corrections provide further support for the final area designation of attainment/unclassifiable.

14. Comments Specific to Missouri

14.1. Greene County

Comment

The Missouri Department of Natural Resources (MDNR) noted that EPA is proposing to designate Greene County, Missouri, as unclassifiable, although Missouri's recommendation was a designation of attainment for this area. MDNR disagrees with the proposed designation of unclassifiable for this area and reaffirms their recommendation for an attainment designation for Greene County. Greene County contains one source affected by the federal SO_2 data requirements rule: City Utilities of Springfield-John Twitty Energy Center. The state selected to characterize the air quality surrounding this source through modeling. However, the EPA indicated in their TSD for the intended designations that the state's modeling analysis could not be relied upon for designation purposes. The state's modeling analysis included emissions data that was later determined to be invalid due to a malfunction in the continuous emissions monitoring system (CEMS) at the John Twitty Energy Center. In response to the EPA's intended designations and TSD, the MDNR submitted additional information for EPA's consideration to inform an appropriate final designation. The MDNR has updated the modeling analysis for the area surrounding the John Twitty Energy Center to account for the malfunction in the CEMS data during 2015 and to incorporate minor corrections to the interactive source emission rates. The analysis addresses all the concerns and issues EPA raised in the August 22, 2017, letter and TSD. MDNR's updated analysis demonstrates attainment with the standard for the area surrounding the John Twitty facility and supports the state's recommendation of attainment for Greene County.

Response

The state's updated analysis is addressed in the TSD for the final designations.

14.2. St. Louis County, Jasper County, Barton County, and Randolph County

Comment

The Missouri Department of Natural Resources (MDNR) commented that for Henry County, a portion of St. Louis County, Jasper County, Barton County, and Randolph County, Missouri, the EPA's intended designation of unclassifiable/attainment is consistent with Missouri's attainment recommendations as submitted in December 2016. The Missouri DNR agrees with the remainder of EPA's proposed area designations in Missouri with the exception of Greene County.

Response

The EPA acknowledges Missouri DNR's concurrence with the indicated intended designations. These designations are being finalized as proposed, with the exception that

“Attainment/Unclassifiable” is the final designation for the areas for which the intended designation was “Unclassifiable/Attainment.”

15. Comments Specific to New York

Comment

New York Department of Environmental Conservation (DEC) commented that the EPA explained that it intends to designate Monroe County as "unclassifiable" (as opposed to New York's recommendation of "attainment") primarily because New York's air modeling as presented in the January 4, 2017, designation recommendation was based on future permit limits for Eastman Business Park (Recycled Energy Development (RED) - Rochester) that had not yet been implemented and were not federally enforceable and effective as of the December 31, 2017, designation date. New York DEC requests that EPA reconsider its intended designation for Monroe County for the following reasons. First and foremost, the SO_2 monitor design values in and near Monroe County continue to remain well below the NAAQS. Second, the modeling demonstration of the federally enforceable permit conditions at RED clearly demonstrates that the facility's impacts, when added to background levels for the area, are well below the NAAQS. Lastly, to address EPA's concerns as they relate to timing, significant progress has been made at RED with respect to the conversion to natural gas. The conversion of Unit 44 is complete which allows for reduced operation of Units 42 and 43 while the replacement units are being installed. It is anticipated that these new units will be installed and operational sometime in mid-to-late December which would facilitate the shutdown of Units 42 and 43 by the end of this year.

Response

The information and issues in this comment are addressed in the TSD for the final designations.

16. Comments Specific to North Carolina

Comment

The North Carolina Department of Environmental Quality (NCDEQ) submitted new information relevant to the designation of Holloway, Roxboro, and Woodsdale Townships in Person County, North Carolina, around the Duke-Mayo facility, the CPI-Roxboro facility, and the Duke-Roxboro facility (a Round 4 source in Cunningham Township). There are two parts to the additional information provided to support NCDEQ‘s recommendation of an attainment designation for these townships: 1) the initial modeling that was submitted including more detailed figures and 2) new modeling completed using the same inputs as the initial analysis except for receptor locations and the use of the permit limit emissions for CPI-Roxboro in addition to modeling using actual hourly rates. The new modeling included some receptors that had been removed in the state’s original modeling but because the purpose was to determine if Duke-Mayo and CPI-Roxboro contribute to ambient air quality in a nearby area that does not meet the NAAQS, receptors were removed within the fenceline of Duke-Roxboro.

Response

The information provided by the North Carolina DEQ is addressed in the TSD for the final designations.

17. Comments Specific to North Dakota

Comment

The State of North Dakota commented that in the EPA's letter to North Dakota Governor Burgum dated August 22, 2017, the EPA misstated North Dakota's recommended designation as being "unclassifiable/attainment."

Response

The EPA acknowledges that the 120-day letter notification to Governor Burgum did not correctly state North Dakota's recommendation for the designation of areas in North Dakota. The TSD for the intended designations did correctly summarize the state's recommendation that all areas in the state be designated attainment.

Comment

North Dakota believes the Clean Air Act [Section 107(d)(l)(A)(i)(ii)(iii)] requires the EPA to make a designation in one of three statutory categories: Non-attainment, Attainment or Unclassifiable. There is no reference or definition in the Act for the hybrid classification "Unclassifiable/Attainment." The EPA's failure to provide a basis for its decision to ignore North Dakota's recommended "attainment' designation and the basis for its deviation from the statutory classification scheme is disappointing. The EPA's "Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard," issued March 20, 2015, identifies the hybrid classification as its "traditional approach,", with no further explanation. North Dakota has made considerable investments in building and operating a monitoring network to assure the citizenry of the state that North Dakota has some of the cleanest air in the nation. As required by the designation process, North Dakota has provided extensive monitoring data that demonstrates compliance with the standard. In addition, dispersion modeling assessments were conducted, that followed performance criteria outlined in the Data Requirements Rule, that also demonstrates compliance with the standard. Both the monitoring data and the mandated dispersion modeling assessments demonstrate that North Dakota is attaining the SO_2 standard and therefore should be entitled to a formal designation of "Attainment."

Response

Section 3.5 of this Response to Comments document addresses the comment with respect to designating areas as either "unclassifiable," "attainment," or "nonattainment," and EPA's clarifying use of a hybrid "attainment/unclassifiable" designation.

Regarding ambient air monitoring data, the EPA concludes that the existing monitors in North Dakota with valid design values at this time are not placed in locations that represent areas of maximum concentrations, and they are not appropriate to be solely relied upon in the designations. The EPA's assessment of the available information regarding areas in North Dakota is contained in the TSD for the intended designations. The EPA is designating specific

areas in North Dakota as attainment/unclassifiable as detailed in the TSD for the final designations, in Chapter 31 specific to North Dakota.

Comment

The Lignite Energy Council commented that pursuant to section 107(d) of the Clean Air Act (CAA), the EPA must designate areas as either "unclassifiable," "attainment," or "nonattainment" for the 2010 1-hour SO_2 NAAQS. Section 107(d) of the CAA defines a nonattainment area as one that does not meet the NAAQS or that contributes to a NAAQS violation in a nearby area, an attainment area as any area other than a nonattainment area that meets the NAAQS, and an unclassifiable area as any area that cannot be classified on the basis of available information as meeting or not meeting the NAAQS. Notably, nothing in North Dakota's supporting data can be interpreted to warrant an "unclassifiable" element to the designations – the data strictly support attainment demonstrations as recommended by Governor Burgum. Therefore, section 107(d) does not allow a designation of "unclassifiable/attainment" as EPA has proposed for North Dakota. Based on the extensive data provided by North Dakota, the Lignite Energy Council believes the EPA should agree with the recommendations provided by the State of North Dakota for attainment with the 1-hour SO_2 NAAQS.

Response

Section 3.5 of this Response to Comments document addresses the comment with respect to designating areas as either "unclassifiable," "attainment," or "nonattainment," and EPA's clarifying use of a hybrid "attainment/unclassifiable" designation.

The EPA's assessment of the available information regarding areas in North Dakota is contained in the TSD for the intended designations. The EPA is designating specific areas in North Dakota as attainment/unclassifiable as detailed in the TSD for the final designations, in Chapter 31 specific to North Dakota.

18. Comments Specific to Ohio

18.1. Cuyahoga County

Comment

ArcelorMittal Cleveland LLC operates an industrial facility in Cuyahoga County, Ohio. Commenter understands the intent to designate attainment is contingent on a Title V permit being issued to another company. Commenter believes that EPA should consider the record of clean data and positive air quality trends at the four Cuyahoga County SO_2 monitors near Commenter, and accept the other company's draft permit and its completed malfunction repair as sufficient to allow an Attainment/Unclassifiable designation, even if a final permit is not issued by some arbitrary date. Commenter states that if EPA designates a portion of Cuyahoga County nonattainment, the boundaries should exclude Commenter's facility because monitoring and modeling data show that it is not contributing to any violations. Commenter cites EPA's statements in its TSD which indicate that Commenter's facility did not contribute significantly to the violating monitor. Commenter suggests a revised boundary of "Portions of the Cities of Newburgh Heights and Cuyahoga Heights that are south of Harvard Avenue, west of I-77, and east of the Cuyahoga River."

Response

In cases where recent facility changes have resulted in current air quality being different from air quality over the most recent full three-year period, such as is the case here, the EPA interprets modeling based on the newer conditions to be consistent with current EPA guidance only to the extent that the facility changes are mandated by federally enforceable and effective limits. The EPA statements quoted by the Commenter were intended to address whether Ohio's modeling analysis appropriately included explicit simulation of only the emissions of Charter Steel, not to address whether other sources contributed to violations. The EPA concluded both that the 23 ppb background concentration suitably represented the impacts of sources other than Charter Steel and that the Commenter's facility, being presumptively a primary origin of this background concentration, should be regarded as contributing to the violations for purposes of defining the nonattainment area.

As reviewed in the TSD for the final designations, Ohio EPA has issued the final Prevention of Significant Deterioration (PSD) permit to Charter Steel as intended. The EPA has concluded that the Charter Steel area is now attaining the standard. As a result, there is no longer a need to define an area near Charter Steel that was violating the standard or to determine what other sources were contributing to those violations. For these reasons, the EPA finds these comments are now moot.

Comment

Ohio EPA asserted that the appropriate designation for all of Cuyahoga County is unclassifiable/attainment. Ohio EPA provided an extensive discussion of the situation at Charter Steel. By its letter, Ohio EPA certified that to the best of its knowledge, Charter Steel is in

compliance with the requirements of the recent federally enforceable permit involving the door for which a malfunction reportedly caused high SO_2 emissions in the past. Ohio EPA certified that the malfunctioning west end door was replaced in July of 2016. Ohio EPA certified that the emissions limitations that provide for attainment and maintenance became effective on October 9, 2017, and any future noncompliance with those limitations would be subject to Ohio EPA's enforcement policy.

Response

The information and comments in this Ohio EPA letter regarding Charter Steel are addressed in the TSD for the final designations.

18.2. Lorain County

Comment

GenOn Energy, Inc. commented that Lorain County should be Unclassifiable/Attainment rather than Unclassifiable.

Commenter identified a typographical error in Chapter 32 of the EPA's Technical Support Document ("TSD"), regarding the proposed designation for Lorain County.

Commenter disagreed with EPA's concern that the modeling analysis "does not provide adequate analysis of whether it has modeled the worst-case distribution of these emissions" from the applicable emission units (Boilers 10 and 12). Commenter noted that the EPA may have overlooked important information included in the modeling summary report concerning future utilization for Boiler 10. Commenter provided additional information in an attachment to its comment letter. Commenter also noted that the modeling report evaluated 4 separate load analysis cases, and explained why the modeling excluded an evaluation of a load scenario in which Boiler 10 is operated at loads greater than 30% of normal maximum load.

Response

The EPA has reviewed the additional supporting information provided for the Avon Lake modeled operating scenarios and concurs that the submitted modeling analyses do support a designation of Attainment/Unclassifiable for Lorain County. The TSD for the final designations provides a more thorough discussion of this issue in response to more extensive comments provided by the state.

Comment

Ohio EPA provided information regarding the current configuration and function of Boiler 10 at the Avon Lake Power Plant in Lorain County, Ohio, arguing that EPA is incorrect in its position that modeling of allowable emissions should have included an assumption of full load operation. Ohio EPA states that as a limited, intermittent-use emission source, emissions from the boiler do

not need to be modeled at all. Ohio EPA also confirmed their recommendation that all of Lorain County be designated unclassifiable/attainment instead of unclassifiable.

Ohio EPA also requests that U.S. EPA act on its request to terminate ongoing requirements for emissions review and remodeling for the First Energy W.H. Sammis facility in Jefferson County, and the American Electric Power Conesville Power Plant in Coshocton County, because both plants' DRR modeling results were below 50% of the NAAQS.

Response

The information and comments in the letter from Ohio EPA concerning Lorain County, Ohio, are addressed in the TSD for the final designations.

The request pertaining to ongoing review requirements in Jefferson and Coshocton Counties will be addressed separately from this final action.

19. Comments Specific to Oklahoma

Comment

Oklahoma Department of Environmental Quality (ODEQ) contacted EPA Region 6 staff by telephone to describe an analysis that ODEQ had conducted which ODEQ considered to be additional information supporting that using a 1.6 multiplication factor to adjust the 30-day permitted SO_2 emission limit as part of developing the value of hourly allowable emissions for modeling purposes, as EPA had included in the TSD for the intended designations, was conservative for the AEP/PSO Northeastern facility. ODEQ provided CEMS data files for the period of April 15, 2016, thru June 30, 2017, when DSI was required and operating on Unit #3 at AEP/PSO Northeastern facility in Rogers County. ODEQ indicated that it had followed the calculation methodology included in Appendices C and D of EPA's 2014 1-Hour SO_2 SIP modeling guidance[1] and that this had resulted in a value of 1.14 as the adjustment factor. ODEQ asserted that these data confirm that the EPA's analysis using the 1.6 multiplier with the modeling results was conservative.

Response

While ODEQ did not provide documentation for its analysis, and therefore EPA has not reviewed ODEQ's calculations, this information does not conflict with the EPA's views explained in the intended designations TSD that modeling using an appropriate adjustment factor would show that this area is attaining the standard.

[1] EPA's April 2014 Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions.

20. Comments Specific to Pennsylvania

20.1. Allegheny County

Comment

The Group Against Smog and Air Pollution (GASP) notes that NRG and AECOM used a new approach for plume rise known as AERMOIST. GASP agrees with the position in EPA's TSD for the intended designations that the modeling done with this approach for plume rise is not adequate to demonstrate the absence of NAAQS violations in the NRG Cheswick source area.

Response

This comment is addressed in section 3.1 of this document.

Comment

GASP notes that the EPA intends to designate the Cheswick-related area as unclassifiable partially due to unacceptable modeling and that this designation does not help to inform the EPA in future actions. GASP commented that NRG Cheswick, Allegheny County Health Department, and PADEP should resubmit acceptable modeling and urges EPA to be a part of an additional process to submit acceptable information to characterize the air around the NRG Cheswick facility for ambient sulfur dioxide.

Response

The EPA acknowledges GASP's comment and notes that, per the EPA's response to GenOn's comments in section 19.2 of this document, the EPA did not receive any additional modeling from the source nor the state or local air agencies. As part of the designations process, states may provide recommendations for area designations to the EPA. However, neither the state nor the EPA are required to perform any specific analysis for areas as part of the designations process. The modeling that was available for consideration in the designation process was provided pursuant to separate characterization requirements of the Data Requirements Rule (August 21, 2015, 80 FR 51052).

Comment

GASP agrees with the EPA's conclusion in the TSD for the intended designations that an analysis to inform the final permitted emission limit for the Cheswick Generating Station should take into consideration impacts on the nearby Allegheny, Pennsylvania, nonattainment area. GASP notes that the wind rose shows that the wind comes from the Cheswick direction towards Allegheny County, Pennsylvania, a small percentage of the time and that the SO_2 standard is a 1-hour standard.

Response

The EPA acknowledges GASP's agreement with the EPA's conclusion that an analysis to inform the final permitted emission limit for the Cheswick Generating Station should take into consideration impacts on the Allegheny, Pennsylvania, nonattainment area.

20.2. Allegheny County, Clearfield County, and Lawrence County

Comment

GenOn Energy, Inc. (GenOn) commented that they intend to discuss the EPA's concerns regarding the modeling studies for Allegheny County (p), Clearfield County and Lawrence County, Pennsylvania, with the air agencies, and expect that the forthcoming responses, which may include revised modeling studies, will adequately address the EPA's concerns.

Response

The EPA acknowledges GenOn's comment and notes that the EPA did not receive any additional responses or revised modeling studies from GenOn, Allegheny County Health Department or PADEP for Allegheny County (p), Clearfield County and Lawrence County, Pennsylvania.

20.3. Northampton County

Comment

GenOn requests that the EPA remove the GenOn Rema LLC/Portland Generating Station (Portland), located in Northampton County, Pennsylvania, from Table 19, titled "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," in Chapter 2 of EPA's proposed TSD.[2] Table 19 included an entry of "shutdown" for Portland, which GenOn commented is not accurate as Portland was mistakenly identified by PADEP as a DRR-affected source. Consequently, GenOn requested in their comment that EPA revise Table 19 by removing Portland from the table.

Response

The EPA disagrees with GenOn's assertion that Portland was "mistakenly identified by PADEP as DRR-affected source." Per 40 CFR 51.1202, PADEP had the authority to identify any source that it decided merited further air quality characterization. Per 40 CFR 51.1203, PADEP submitted a list of these sources, which included Portland, to the EPA on January 15,

[2] In its comment, GenOn referred to the proposed technical support document as the technical support document for the DRR. The table they are referring to is in the technical support document for the EPA's Intended Round 3 Area Designations.

2016. Subsequently, follow-up letters dated March 9, 2016, and June 23, 2016, from PADEP to the EPA continued to include Portland.[3] Therefore, based on the correspondence from PADEP, Portland was correctly identified as a DRR source and its inclusion in Table 19 in the TSD for the intended designations was appropriate. The EPA added the following footnote to Table 19 in Chapter 2 of the TSD for the final designations to provide clarity and address GenOn's concern: "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."

[3] *See* "Pennsylvania Source List Submittal" and "Revised Pennsylvania Source List Submittal", available online at https://www.epa.gov/so2-pollution/so2-data-requirements-rule-state-source-list-submittals-region-3, for the January 15, 2016 and March 9, 2016 letters from PADEP to EPA. *See* "Pennsylvania Source Characterization Submittal", available online at, https://www.epa.gov/so2-pollution/so2-data-requirements-rule-state-pathway-notifications, for the June 23, 2016 letter from PADEP to EPA.

21. Comments Specific to Puerto Rico

Comment

Puerto Rico commented that because it has chosen to meet the requirements of the DRR for sources in the San Juan area using air quality modeling, EPA should not consider ambient air monitoring data when designating the San Juan area and the EPA TSD should not present ambient air monitoring data.

Response

This comment is addressed in section 3.2 of this document.

Comment

Puerto Rico commented that the EPA's TSD for the intended designation refers to the initial recommendation submitted by the Puerto Rico Environmental Quality Board (PREQB) submitted in June 3, 2011. This recommendation should not be used because in a letter submitted on March 26, 2012, PREQB was requesting to retire the recommendation contained in the letter dated June 3, 2011.

Response

The history of Puerto Rico's designations recommendations was provided in the TSD for the intended designations in order to avoid confusion. In the final designations, EPA has considered only the currently applicable recommendation from the territory for each area.

Comment

Puerto Rico commented that the EPA's TSD for the intended designation says that Puerto Rico's original modeling assessments for the San Juan, Guayama-Salinas, and PREPA Costa Sur areas submitted on December 19, 2016, contained a variety of modeling flaws, including incorrect emissions and inaccurate averaging of model results to assess the final modeling impact. The Puerto Rico Environmental Quality Board (PREQB) disagrees with this characterization of its modeling. In July 2016, PREQB submitted to EPA a modeling protocol explaining the annual actual SO_2emissions, emissions calculation methodology, receptor grids and other data, that will be used in the 1-hour SO_2 designation modeling, including the use of AERMOD post-files to determine the averaging of the model results to assess final modeling impact. EPA did not submit any comments, questions or changes to the protocol nor mention any possible modeling flaws. At that time, EPA only requested PREQB to proceed with the modeling, and as soon as possible, submit the results, in or before December 2016. Furthermore, PREQB disagrees with the statement that the SO_2 emissions were incorrect. These emissions were certified actual annual SO_2 emissions, submitted by each PREPA facility and reviewed by PREQB; saying that the emissions are incorrect is like pronouncing that the emissions were wrong or poorly estimated, which is not the case. In addition, using annual actual emissions is a more conservative modeling approach. PREQB was in continuous consultation with EPA through periodic conference calls,

before any analysis was conducted or any document was submitted to EPA. PREQB also notes that for PREPA Costa Sur, the ADJ_U* option was included in the second round of modeling submitted March 31, 2017, and notes that this is because EPA requested its use in the model.

Response

This comment is addressed in the TSD for the final designations.

Comment

Puerto Rico commented that the EPA states in its TSD for the intended designations that it would have preferred that the two sources will be modeled together due to their proximity to each other, and that the use of smaller modeling domain and not considering the two sources in the same modeling run makes it difficult to conclude that the violations do not also occur further beyond the receptor grid used by Puerto Rico. The PREQB first approach, for the 1-hour SO_2 designation modeling in the San Juan area, was to run PREPA San Juan and PREPA Palo Seco sources together, because they are in the same air quality basin, and because of their proximity and cumulative impact in the area. EPA requested PREQB to model each emission source separately, because each emission source emitted more than 2,000 tpy of SO_2 and should be characterized separately. PREQB only followed the EPA recommendation or request, after the discussion on this matter. The request to model the two sources separately was from EPA. PREQB's coarse receptor grids cover all the modeling areas in PREPA San Juan and Palo Seco with 1-hour SO_2 maximum impact or areas with 1-hour SO_2 violations, and with the refined receptor, PREQB determined the 1-hour SO_2 highest impact. Using the modeling results of the two grids, PREQB established the areas that have or might have 1-hour SO_2 standard violations, and therefore, the recommendations for the nonattainment areas. To confirm the designation modeling results, PREQB conducted another AERMOD run in the San Juan area, including PREPA San Juan and PREPA Palo Seco 1-hour SO_2 emissions in the same modeling run (3 years of SO_2 emissions and 3 years of met data). The coarse receptor grid was also extended approximately, 2 km west and 1 km north of the San Juan area, although the north part of San Juan area is mostly over water. The 1-hour SO_2 modeling results, using the emissions of both industries in the same run, showed that the maximum impact areas were the same as in the separate modeling runs. There were no changes in the PREPA San Juan 1-hour SO_2 maximum results, and the PREPA Palo Seco 1-hour SO_2 maximum impact, stayed over the water.

Response

This comment is addressed in the TSD for the final designations.

Comment

The EPA's TSD for the intended designations notes that there are violating receptors on the northern, southern, and western boundaries of the receptor grid as shown in Figure 15, and states that had Puerto Rico used a larger grid additional violating receptors further north, south, and west may have been shown. PREQB has re-run the Guayama area model with a larger coarse receptor grid, extended approximately, 3 km to the north, 2 km to the south, and 2 km to the

west. The model results are the 4th highest concentration and background (58 µg/m^3). The 1-hour SO_2 Guayama model results with the extended receptor grid, showed the same maximum impact area and maximum concentration, as PREQB presented in the previous characterization. No additional violations were found.

Response

This comment is addressed in the TSD for the final designations.

22. Comments Specific to Utah

Comment

Sierra Club commented on the EPA's intended designation for Emery County, Utah. The commenter notes that in Chapter 40 of the EPA's TSD for intended designations, EPA states that "[a]s of March 2017, Region 8 has not received any modeling assessments from a 3rd party." The commenter notes that Sierra Club had submitted a 1-hour average SO_2 NAAQS modeling assessment for the Hunter and Huntington plants in Emery County. Specifically, Sierra Club submitted such modeling to EPA on May 26, 2016, in its comments on EPA's proposed approval of the Utah infrastructure State Implementation Plan (SIP) for the SO_2 NAAQS and in which Sierra Club provided comments on the State of Utah's SO_2 NAAQS modeling analysis which is forming the basis of EPA's currently intended attainment designation for Emery County. The commenter notes that, "EPA did not address that modeling in its final approval of the Utah Infrastructure SIP for the SO_2 NAAQS and instead implied that it would be addressing the issues raised by Sierra Club at the time of EPA's designations of SO_2 NAAQS compliance." The commenter further notes that EPA's intended TSD for Utah states that no third-party modeling assessments have been submitted. Sierra Club requests that EPA acknowledge and respond to Sierra Club's SO_2 NAAQS modeling submitted to EPA in May 2016. Sierra Club submitted a copy of this previous modeling.

Response

The EPA acknowledges the modeling submitted by Sierra Club and has evaluated it alongside all modeling assessments available for this area. These comments are addressed in the TSD for the final designations.

Comment

Sierra Club commented that by removing a large number of modeling receptors, Utah Division of Air Quality improperly excluded parts of the ambient air from its modeling analysis of the Hunter and Huntington power plants' impacts on 1-hour SO_2 concentrations in Emery County. The commenter provides an extensive discussion in support of this statement and in opposition to Utah's rationale for the exclusion of these receptors, including maps and other graphical information. Sierra Club re-ran the modeling performed by Utah DAQ but without excluding any receptors.

Response

The EPA acknowledges the modeling submitted by Sierra Club and has evaluated it alongside all modeling assessments available for this area. These comments are addressed in the TSD for the final designations.

23. Comments Specific to Virginia

23.1. Buchanan County

Comment

Commenter Jewell Coke Company states that is appropriate for the modeling for the Jewell Coke facility to exclude receptors on steep terrain because it would be impractical to place a monitoring station in such terrain, and therefore EPA should designate the area near Jewell Coke as attainment given that the receptors that were not excluded indicated attainment of the NAAQS. The commenter also notes that EPA stated its intention to accept the modeling of an area in Utah (near the Hunter and Huntington power plants) as sufficient so support a designation of attainment even though receptors in steep terrain were excluded.

Commenter has re-run the modeling for the Jewell Coke facility with the revised ADJ_U* formulation, and there is no change in the predicted maximum design value. The commenter says this is plausible because the meteorological data includes few periods with low wind speeds. Jewell Coke sent documentation for this new modeling analysis to Virginia DEQ, which forwarded it to the EPA.

In response to EPA's concern regarding the Jewell Coke plant modeling that AERMOD concentrations could be under-predicted by as much as 10% because the facility's total modeled SO_2 emission rates were approximately 10% less than the SO_2 emissions identified in the 2014 National Emissions Inventory (NEI), commenter provided additional detail on the development of the emission inputs used in the modeling, noting that the inputs were based in part on emission factors derived from stack testing performed since Jewell Coke reported its 2014 emissions to the state air agency and since the state forwarded that information to EPA for purposes of the 2014 NEI.

Response

These comments and the new modeling analysis provided by Jewell Coke are addressed in the TSD for the final designations.

Comment

Sierra Club stated that Virginia improperly excluded all monitors on slopes exceeding 30 percent. Under the relevant and appropriate guidance, receptors are generally only properly excluded within the fenceline of the source, and over water. However, the model used in the SunCoke report excluded all terrain with a slope of 30 percent or greater, which corresponds to an incline angle of just 16.7 degrees. To justify this limitation and the resulting patchwork monitor placement in their model, SunCoke cites two irrelevant EPA guidance documents from 40 and 30 years ago, respectively, that neither discuss receptor placement nor make any mention of gradient limitations (30 percent or otherwise), and a Virginia Department of Transportation (DOT) road construction guideline that has no relevance to or bearing on air quality monitoring. Neither document provides any justification for SunCoke's radical departure from EPA's

modeling guidance. Virginia gives no explanation for why road construction is analogous to public access for the purposes of receptor siting. The report is also silent as to how this supposedly steep and "extremely rough" terrain that makes road construction impossible nonetheless is crisscrossed with a series of roads traversing the surrounding hills.

Sierra Club stated that Virginia improperly excluded public areas around highways and train tracks from modeling. The Jewell facility sits at the intersection of U.S. 460 and VA-638, both of which are public roads. EPA explicitly mentions proximity to a roadway is not sufficient reason to leave an area out of a dispersion model. The Virginia report also notes that "approximately 8,100 cars and trucks travel by Jewell each day (Virginia Department of Transportation [DOT] 2015)." Report at 15. Those vehicles are public traffic, not the facility's supporting operations. Significant daily traffic passes directly in front of the facility, exposing passengers to harmful SO_2. In spite of this, Virginia chose to exclude receptors "within the immediate industrial, transportation, and river areas around Jewell operations," which included parts of the public roads extending south and west from the facility and throughout the surrounding hills.

Sierra Club stated that Virginia improperly spaced monitors 100 meters apart within a kilometer of the Jewell facility. Virginia employed a model receptor grid that spaced air monitors 100 meters apart for the entire 10-kilometer area around the Jewell facility. However, two separate directives both instruct that near the Jewell facility, the model should have grouped receptors more tightly. First, both the EPA's Draft SO_2 NAAQS Designations Modeling Technical Assistance Document ("TAD") (February 2016)2 and the Virginia Modeling Guideline for Air Quality Permits (March 2015)3 instruct that modeling should group receptors more tightly in the area immediately surrounding the emission source in question. The Virginia Modeling Guideline is more explicitly prescriptive, suggesting 50-meter receptor spacing within 1 kilometer of the emitting facility. Second, both the TAD and the Virginia Guideline state that models revealing particular areas that approach or exceed the NAAQS should be studied in greater detail.

Sierra Club stated that Virginia improperly excluded the area immediately surrounding the Jewell facility from modeling. The Virginia Modeling Guideline cites six EPA memos to support the exemption for model receptors or actual air monitors on "land owned or controlled by the source and to which public access is precluded by a fence or other physical barriers, including a security guard, when the plant is in operation." However, rather than simply exclude receptors within the Jewell Coke site, the report claims a zone of exclusion that significantly exceeds the physical Jewell facility.

Sierra Club submitted the results and modeling files for an air dispersion modeling analysis that used the same underlying data and modeling input files as that of the Virginia report, but restored the receptors Virginia removed in "rough terrain" and spaced receptors 50 m apart within 1 km of the Jewell facility. This modeling applied identical meteorological, terrain, and emissions data. This modeling used AERMOD 16216r with AERMET 15181 Adj U*. As alluded to above, when these receptors are restored, the modeling demonstrates that Jewell Coke causes peak impacts of 2,515.4 micrograms per cubic meter, a full order of magnitude greater than the standard. Since this modeling corrects the key deficiencies of Virginia's modeling analysis (including the issues identified by EPA), and because it clearly demonstrates nonattainment of the NAAQS, EPA should finalize a designation of nonattainment for this area.

Response

These comments and the modeling analysis submitted by Sierra Club are addressed in the TSD for the final designations.

23.2. All Areas to be Designated in Virginia

Comment

The Virginia Department of Environmental Quality (VADEQ) stated that it supports the designations of areas in Virginia as proposed by USEPA.

Also, VADEQ transmitted electronically with its comment letter additional modeling information originally provided by Jewell Coke Company LLP (see EPA-HQ-OAR-2017-0003-0531).

Response

The information submitted with this comment is addressed in the TSD for the final designations.

24. Comments Specific to West Virginia

Comment

American Electric Power Service Corporation (AEPSC) asserts that EPA should designate all of Mason County, West Virginia as "Attainment/Unclassifiable," primarily based on the use of recently acquired SO_2 monitoring data in the county (AQS 54-053-0001) and in the adjacent county of Gallia, Ohio (AQS 39-053-0004 and AQS 39-053-0005). AEPSC asserts that this monitoring data, in combination with the modeling analysis submitted by the West Virginia Department of Environmental Protection (WVDEP) and reviewed by EPA for our proposed designation of Unclassifiable for the northern portion of Mason County and Attainment/Unclassifiable for the southern portion of Mason County, provides sufficient information to designate the portion of Mason County EPA proposed to designate Unclassifiable as "Attainment/Unclassifiable."

Response

The EPA agrees that the preliminary SO_2 air quality data from the monitors identified in the comment located in Mason County, West Virginia, and Gallia County, Ohio, does not indicate that the area including the northern portion of Mason County is violating the primary SO_2 National Ambient Air Quality Standard (NAAQS). The EPA provides a summary and discussion of the available SO_2 data for Mason County, West Virginia, and Gallia County, Ohio, in Chapter 43 of the TSD prepared for this final action (Final TSD).

However, AEPSC's contention that this data can be used in conjunction with the modeling EPA reviewed as part of the 120-day proposal to address some of EPA's concerns is not correct. In this situation, the use of monitored data instead of explicitly modeling the appropriate sources is not appropriate.

Section 4.1 of the modeling TAD references the modeling guidance from Appendix W (40 CFR Part 51 The Guideline on Air Quality Models) and states that "all sources expected to cause a significant concentration gradient in the vicinity of the source of interest should be explicitly modeled." See section 5.3.2.10 of our 120-day TSD. The EPA notes that WVDEP has submitted additional modeling which appropriately incorporates the Ohio sources and uses appropriate monitored background values (See Final TSD). The EPA also notes that the predicted 99th percentile value in the revised WVDEP modeling analysis exceeds the maximum value identified by AEPSC based on their use of the monitored data in conjunction with the 120-day modeling analysis. Therefore, the information provided by AEPSC alone is not sufficient to revise the proposed designation of Unclassifiable for the northern portion of Mason County to Attainment/Unclassifiable. However, in light of the additional information provided by WVDEP, the EPA is designating all of Mason County as Attainment/Unclassifiable.

Comment

The WVDEP has reviewed EPA's response for West Virginia and disagrees with the proposed intention to designate a portion of Mason County, including the Lewis, Robinson, Waggener,

Graham, and Cooper Tax Districts, as unclassifiable. DAQ has conducted additional modeling which clearly demonstrates attainment of the 2010 SO_2 National Ambient Air Quality Standard (NAAQS) even with the inclusion of the Gavin and Kyger Creek power plants in Ohio, and the Mountaineer plant in West Virginia. Also, a different approach to background concentrations has been used, addressing EPA's concerns with the background concentration of 10 ppb used in the original modeling. Based on the results of the additional modeling West Virginia requests Mason County be designated unclassifiable/attainment in its entirety.

Response

The information provided by the WV DEP in this comment is addressed in the TSD for the final designations.

25. Comments Specific to Wisconsin

Comment

The Wisconsin Department of Natural Resources (WDNR) stated that the EPA's designation guidance describes that an area may be designated as attainment if the most recent three years of ambient air quality monitoring data indicate no violations. The WDNR has followed EPA guidance to ensure that air quality monitors are appropriately sited to measure ambient SO_2 concentrations. Therefore, WDNR recommends that Brown, Dane, Dodge, Forest, and Milwaukee Counties in Wisconsin be designated as "attainment" of the 2010 SO_2 NAAQS, rather than "unclassifiable/attainment," based on 2014-2016 design values that show attainment of the NAAQS.

Response

For the purpose of this final action, the EPA uses the term "attainment" as a designation status only for areas that have been redesignated from nonattainment to attainment based on an approvable maintenance plan. Our final designation for these counties is "attainment/unclassifiable." The reason for the change from the intended designation of unclassifiable/attainment to attainment/unclassifiable is explained in Chapter 1 of the TSD for the final designations.

Comment

The Wisconsin Department of Natural Resources (WDNR) stated that the EPA noted in its August 22, 2017, letter that it anticipates designating Walworth County as unclassifiable/attainment in its final action in December, based on implementation of recently approved requirements for USG-Walworth (82 FR 31458) that contain a compliance date of October 1, 2017. Since state modeling based on the requirements in Wisconsin Administrative Order AM-16-01 indicates the NAAQS is met in the area around the facility, the EPA should ensure that Walworth County is designated as unclassifiable/attainment in December 2017.

Response

Chapter 44 of the TSD for the final designations discusses further information provided by WDNR and USG indicating compliance with fully effective and federally enforceable requirements that Wisconsin has shown provide for attainment in Walworth County, Wisconsin. Based on this modeling, and considering the evidence provided by USG, the EPA is designating Walworth County as attainment/unclassifiable in accordance with Wisconsin's recommendation.

Comment

The Wisconsin Department of Natural Resources (WDNR) stated that EPA plans to designate Outagamie County no later than December 31, 2020, due to a new SO_2 monitoring network in this area established to comply with characterization requirements of the DRR. WDNR commented that the EPA should attempt to constrain any undesignated area

in Outagamie County to as small of a boundary as possible. The EPA should also designate this area as attainment in a timely manner, should monitoring data support such a designation.

Response

The EPA thanks WDNR for the comment regarding selection of boundaries for the undesignated area in Outagamie County. As the state requests, once quality assured monitoring data are available for this area, the EPA plans to designate the area in a timely manner, as supported by the evidence before the Agency at that time. At issue now is what area to leave undesignated, to be reserved for evaluation no later than December 31, 2020, as to what area has the potential to warrant inclusion in a nonattainment area should the evidence support a nonattainment designation. In the absence of analysis of the area that has potential to violate the standard or contribute to such potential violations, and by definition being unable to anticipate the magnitude of the hypothesized potential violations, the EPA is unable to judge in advance the precise boundaries of any nonattainment area that might be warranted. Thus, at this time, the EPA is unable to define a smaller area to leave undesignated than the full Outagamie County.

In our intended designations, the EPA interpreted the section entitled "Jurisdictional boundaries" in the State's January 13, 2017, recommendation as suggesting the use of existing jurisdictional boundaries for designations. As discussed in section 6.3 of Chapter 44 (specific to Wisconsin) of the TSD for our intended round 3 area designations for the Remaining Counties in Wisconsin, the EPA's goal is to base designations on clearly defined legal boundaries, and to have these boundaries align with existing administrative boundaries when reasonable. The boundaries of Outagamie County are as constrained as possible, as recommended by the State, and meet the EPA's stated goals without prejudging the outcome of the ongoing characterization around Expera Specialty Solutions, LLC-Kaukauna. Therefore, we find that the boundaries of Outagamie County represent the most appropriate basis for constraining the area to be designated by December 31, 2020.

Comment

USG commented that it is their understanding that the EPA intends to rely on Administrative Consent Order AM-16-01 between USG and the Wisconsin Department of Natural Resources (WDNR) in order to designate Walworth County unclassifiable/attainment. According to the EPA, the Administrative Consent Order needs to be in force before December 31, 2017. Public notice of the EPA's proposed approval of the Administrative Consent Order and incorporation into the Wisconsin State Implementation Plan was made in the Federal Register on August 7, 2017. See 82 FR 31546-47. No comments objecting to the Administrative Order were filed. It is thus our understanding Administrative Consent Order is in force, and the unclassifiable/attainment designation will be made. Furthermore, USG has executed the first two requirements under the Administrative Order: (1) the stack height increase, and (2) submission of a Compliance and Monitoring Plan. USG supports the designation of Walworth County as unclassifiable/attainment.

Response

This comment is addressed in the TSD for the final designations.

26. Comments Specific to Wyoming

Comment

Basin Electric Power Cooperative requested that the EPA agree with the recommendations provided by the State of Wyoming and that the state be designated attainment rather than unclassifiable/attainment.

Response

The EPA is designating specific areas in Wyoming is attainment/unclassifiable as explained in Chapter 45 (specific to Wyoming) of the TSD for the final designations.

Comment

The Wyoming Air Quality Division requested that the deadline for states to submit comments on the proposed rule docket be extended from October 5, 2017, to at least October 23, 2017, to match the deadline given in the EPA Region 8 letter and provide for additional time to review the Technical Support Document (TSD) Intended Round 3 Area Designations for the 2010 1-Hour SO_2 Primary National Ambient Air Quality Standards for Wyoming.

Response

The date of October 5, 2017, given in the *Federal Register* notice as the end of the public comment period was applicable only to comments from parties other than governors or their representatives. All state comments received by October 23, 2017, have been fully considered in the final designations. Those comments are addressed in this Response to Comments document, or, if indicated, in the TSD for the final designations.

Comment

The Wyoming Air Quality Division noted that Clean Air Act (CAA) section 107(d)(l)(A) states that areas are to be designated as either (i) nonattainment, (ii) attainment, or (iii) unclassifiable. EPA acknowledged and listed the CAA's attainment designation categories in the first sentence of its TSD accompanying its August 22, 2017, designation letter. In the same paragraph, however, EPA states that it intends to deviate from these categories by designating areas as "nonattainment," "unclassifiable/attainment," or "unclassifiable" based on a set of somewhat different definitions than those listed in the CAA. More specifically, EPA intends to designate areas as "unclassifiable/attainment" in Wyoming that the Governor's letter recommended to be designated as "attainment." The Division asks that EPA align its definitions with those of the CAA, especially with respect to the "unclassifiable/attainment" classification. EPA states in a footnote to the TSD summary that: "The term "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." By this definition, an area cannot be classified as "attainment" unless it has first been classified as "nonattainment", which departs from the plain language definitions in the

CAA. Wyoming made the recommendation of either "attainment" or "unclassifiable" for the areas in the letters dated March 24, 2011, and January 13, 2017, based on reliable data. Other definitions run counter to the CAA definitions and lead to confusion. The Division is concerned that EPA' s use of different definitions may create confusion, lead to contradictory results, and create the potential for unnecessary legal challenges. The Division asks EPA to refrain from using interpretive definitions as it has in the TSD and return to the clear, plain language definitions listed in the CAA. At the very least, the Division ask that the EPA use "attainment/unclassifiable" rather than "unclassifiable/attainment."

Response

Section 3.5 of this Response to Comments document addresses the comment with respect to designating areas as either "unclassifiable," "attainment," or "nonattainment," and EPA's clarifying use of a hybrid "attainment/unclassifiable" designation. The EPA is designating specific areas in Wyoming as attainment/unclassifiable as detailed in the TSD for these final designations, see Chapter 45 specific to Wyoming.

Comment

Wyoming Air Quality Division expressed concerns regarding designations of Indian Country in this action. Because the Wind River Indian Reservation did not request a separate designation, the Division requests that EPA title its designation documents to reflect that EPA is not just making designations for the state of Wyoming, but also for the Wind River Indian Reservation. The Wind River Indian Reservation is under the jurisdiction of Tribal Authorities. The Division feels it is inappropriate to lump the Wind River Indian Reservation's designation under Wyoming's designation. A straightforward acknowledgement of the other sovereign in the title of the document is needed. This request is also consistent with EPA's December 20, 2011, Policy Memorandum, "Policy for Establishing Separate Air Quality Designations for Areas of Indian Country," which seeks to recognize tribal sovereignty.

Response

Regarding the titling of documents related to the designations, the EPA does not agree that it is necessary for each document's or chapter's title to indicate that a state includes an area of Indian Country and/or that an area of Indian Country is being designated along with state-authority lands into one designated area. The list of final area designations in the Code of Federal Regulations is clear wherever a tribal area is included in a designated area, consistent with the EPA policy cited by the commenter.

Comment

The Division also requests that EPA correct Enclosure 2 ("List of all remaining areas of Wyoming that were not required to be characterized and for which the EPA does not have information that suggests the area may not be meeting the NAAQS or contributing to air quality in a nearby area that does not meet the NAAQS. The EPA intends to designate each of these areas as a separate unclassifiable/attainment area.") and Table 20 in its TSD to clarify EPA's

intention for designating Indian country in Fremont County. As Enclosure 2 and Table 20 are currently written, EPA only states that it will designate Indian country in Hot Springs County, and makes no mention of its intention for Indian country in Fremont County. Footnote 1 on page 92 recognizes the Wind River Indian Reservation in Fremont County, but only as a point of reference for the area outside the reservation that will not be designated in Round 3. Footnote 1 does not state whether the Wind River Indian Reservation in Fremont County itself or any surrounding Indian country will be designated in this action. It is EPA's policy to "explicitly identify Indian country in the 40 CFR Part 81 Tables" that will be designated. See EPA Policy Memorandum, Stephen D. Page, "Policy for Establishing Separate Air Quality Designations for Areas of Indian Country," page 12 (December 20, 2011). The Division attached a map of the current Wind River Indian Reservation for clarity. See Wyoming v. EPA, 849 F.3d 861 (10th Cir. 2017 and Attachment A).

Response

Regarding Fremont County, the EPA believes that the TSD for the intended designations was clear that the Wind River Indian Reservation is part of the area that was intended to be designated in Round 3 as Unclassifiable/Attainment, given that it referred to the area not being designated in Round 3 as "the area east of the reservation." However, we acknowledge that Enclosure 2 of the 120-day letter to the Governor of Wyoming should have had a footnote for Fremont County to make clear that the area to be designated included an area of Indian Country. The TSD for the final designations and the list of final area designations in the Code of Federal Regulations are clear on this point. The EPA notes that we have amended the boundary in the TSD for our intended designations, in which we intended to designate all portions of Fremont County as unclassifiable/attainment "apart from the area north of Highway 20 and east of the Wind River Reservation." In this final designation, the EPA is extending the portion of Fremont County that will be designated as attainment/unclassifiable east by 8.4 kilometers, and changing the description of this boundary from "the Wind River Reservation" to the western border of Township 40N-Range 93W, T39N-R93W, and T38N-R93W. The northern boundary of this portion of the Fremont County attainment/unclassifiable area, U.S. Route 20, remains unchanged.

Comment

Wyoming Air Quality Division noted that on page 16 of the Wyoming chapter of the TSD for the intended designations, EPA discussed the receptor exclusion that Wyoming used for the area over the mine adjacent to the Naughton Power Plant. An alternative basis for receptor exclusion that Wyoming has previously brought to EPA's attention is that DRR modeling receptors, as with DRR monitors, should only be placed in areas that are considered ambient air, i.e., where the public generally has access. See Letter from Governor M. Mead to S. McGrath of EPA Region 8 (January 13, 2017).

Response

The EPA recognizes the alternative basis that had been provided by the state. This information had been reviewed by the EPA and considered in the intended designation, which we are finalizing without change.

Comment

Wyoming Air Quality Division also commented on a number of potential inconsistencies, errors, and possibly confusing statements in the Wyoming chapter of the TSD for the intended designations, affecting multiple counties in Wyoming.

Response

The EPA has reviewed the comments made by the state with regard to the TSD, and responds to each as follows:

The EPA concurs that description of Fremont County in Table 1 is incorrect, and also concurs that the language on page 92 indicating the opposite (that the portion in northeastern Fremont county around the Lost Cabin Gas Plant would be designated in 2020) is accurate. The EPA notes that the final designation boundary for Fremont County has been altered from the intended version described on page 92 of the TSD so that northeastern portion of the county which will be designated in 2020 ends at the western edge of Township 40N-Range 93W, T39N-R93W, and T38N-R93W, rather than using the eastern border of the Wind River Reservation to form this portion of the designation boundary as intended.

Regarding Lincoln County, the EPA concurs with the state that the coordinates of the sulfur recovery unit in Table 3 were incorrectly reported, that the reference to Table 5 should have referenced Table 4, and that the modeled SO_2 emissions for the Shute Creek Treating Facility were incorrectly labeled as 2,561.24, and should have been labeled as 2,561.42.

Regarding Platte County, the EPA concurs that the word “boiler” is misspelled in Section 4.3.2.4, and that the wind rose in Figure 20 was mislabeled as Torrington, North Dakota, and should have been labeled Torrington, Wyoming.

Regarding Campbell County, the EPA concurs that this section should be considered as the “Campbell County Area” rather than the “Gillette, Wyoming Area,” as the designation is applicable to the entire county, and that Section 5.3.1 incorrectly references Platte County instead of Campbell County.

Regarding Eastern Sweetwater County, the EPA concurs that there is an incorrect reference to the state of Colorado. The EPA disagrees that we were incorrect in noting the higher modeled impacts are modeled to occur to the west in close proximity to the Jim Bridger facility, as Figure 34 indicated that this is the case. As noted in the TSD, the EPA could not evaluate the results of the state’s modeling which predicted maximum impacts in the “exclusion zone,” because that

modeling used non-default options. The EPA concurs that we approved of the location of the monitor as adequately sited to record maximum impacts from the Jim Bridger facility.

Regarding the monitor placement of AQS monitor 56-025-2601, the EPA notes that we are not determining that this monitor is not appropriately sited to capture maximum SO_2 concentrations from the Sinclair Casper Refinery, but rather that we do not have information before us to confirm that it is appropriately sited. The state is accurate in noting that the Sinclair Casper Refinery is not subject to the Data Requirements Rule, and so the state had no obligation to submit justification of the monitor's location to the EPA to fulfill that Rule's requirements.

Regarding Figure 39, the blue areas of the map indicated the areas whose designation either had already been addressed earlier in the TSD, or would not be designated until Round 4, while all areas not in blue indicated the remainder of the state, which was the subject of that section of the document.

27. Comment Outside the Scope of This Action

Comment

A commenter submitted a copy of the March 28, 2017, Executive Order titled "Promoting Energy Independence and Economic Growth," with no additional comment text.

Response

The EPA acknowledges this submission but notes this comment is out of the scope of the current final action regarding sulfur dioxide designations.