

**Responses to Significant Comments on the State and Tribal Designation  
Recommendations for the 2010 Sulfur Dioxide National Ambient Air Quality  
Standards (NAAQS)**

Docket Number EPA-HQ-OAR-2012-0233  
U.S. Environmental Protection Agency

July 2013

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## List of Abbreviations and Acronyms

CAA	Clean Air Act
EPA	Environmental Protection Agency
FR	Federal Register
NAA	Nonattainment Area
NAAQS	National Ambient Air Quality Standard
NFR	Notice of Final Rulemaking
OAQPS	EPA Office of Air Quality Planning and Standards
PPB	Parts Per Billion
SO <sub>2</sub>	Sulfur Dioxide
SIP	State Implementation Plan
TPY	Tons Per Year
TSD	Technical Support Document

## **1.0 Introduction**

This document, together with the preamble to the final designations action, and the Technical Support Documents (TSDs) for the designations, presents the responses of EPA to the significant comments we received on our initial designations decisions conveyed to states in February 2013. The responses presented in this document are intended to augment the responses to comments that appear in the preamble to the final action and the TSDs or to address comments not discussed in those documents.

## **2.0 Background**

On June 2, 2010, the United States Environmental Protection Agency (EPA) revised the National Ambient Air Quality Standards (NAAQS) for sulfur dioxide (SO<sub>2</sub>) to provide increased protection of public health from SO<sub>2</sub> pollution. The EPA established a new primary 1-hour SO<sub>2</sub> standard at a level of 75 ppb to protect against health effects associated with SO<sub>2</sub> exposure, including a range of serious respiratory illnesses. The EPA retained the secondary 3-hour SO<sub>2</sub> standard on March 20, 2012, to protect against welfare effects, including impacts on sensitive vegetation and forested ecosystems.

History shows us that better health and cleaner air go hand-in-hand with economic growth. Working closely with the states and tribes, the EPA is implementing the 2010 SO<sub>2</sub> standard using a common sense approach that improves air quality and minimizes the burden on state and local governments. As part of this process, the EPA is working with the states and tribes to identify areas in the country that meet the standard and those that need to take steps to reduce SO<sub>2</sub> pollution. Within one year after a new or revised air quality standard is established, the Clean Air Act (CAA) directs the Governor of each state to submit to the EPA a list of all areas in the state, with recommendations for whether each area meets the standard. As a first step in implementing the 2010 SO<sub>2</sub> standard, the EPA asked states to submit their designation recommendations, including appropriate area boundaries, by June 3, 2011. The EPA later took steps to extend the designation process for the 2010 SO<sub>2</sub> standard by 1 year due to having insufficient information to make initial area designations at that time. With this extension, the statutory deadline to complete designations is June 3, 2013.

On February 7, 2013, the EPA sent letters (often referred to as “120-day letters”) to state and tribal representatives responding to some of their recommendations and identifying an initial set of areas that do not meet the 2010 SO<sub>2</sub> standard based on three years of monitoring data showing NAAQS violations. For other areas, EPA explained that it was not yet prepared to propose or take final designations actions. States, tribes, and the public had the opportunity to comment on the EPA’s preliminary designations decisions for the initial set of areas, and to provide new information and analyses to the EPA.

### **3.0 Responses to Significant Comments on the First Round of Initial Area Designations for the 2010 SO<sub>2</sub> National Ambient Air Quality Standards (NAAQS)**

The following sections are summaries of significant comments received on EPA's preliminary designation decisions for the areas that EPA is designating nonattainment based on monitored violations, and the EPA's responses to those comments.

#### **3.1 General Issues**

##### **3.1.1. Not Yet Taking Action on Areas With No Monitored Violation**

**Comment:** EPA's February 6, 2013, letters stated that EPA was not yet prepared to include in the initial round of proposed designations any areas for the SO<sub>2</sub> NAAQS which had no monitors with 3 years of data showing violations. This approach does not appear to be an option for EPA to avoid issuing designations under the Clean Air Act. Therefore, EPA should designate all areas with no violating ambient monitoring data as "unclassifiable/attainment" since there is no evidence of violations in such areas. This approach is similar to the one taken by EPA when completing the initial designations for the 2010 short-term NAAQS for nitrogen dioxide (NO<sub>2</sub>). A designation is required under the CAA, and EPA should act to issue one of the three designations provided in the CAA. Failure to designate areas by June 2013 for the SO<sub>2</sub> standard seems to be ignoring the statutory duty of EPA under the CAA and opening the door to litigation. This approach does not seem to be the best use of limited resources both at EPA and in the state agencies. Two other commenters also requested that EPA designate as unclassifiable those areas for which there is currently no SO<sub>2</sub> air monitoring data, noting that this would enable EPA to meet its statutory deadline for completing designations. The commenters state that CAA section 107(d)(1)(A)(iii) provides that any area that cannot be classified on the basis of available information as meeting or not meeting the NAAQS should be designated as unclassifiable. The commenters note that EPA has designated areas as unclassifiable for several pollutants in the past, including an "unclassifiable/attainment" designation under the 2010 NO<sub>2</sub> NAAQS for all areas in the country. The commenter further notes that for the 2010 NO<sub>2</sub> NAAQS, EPA promulgated designations approximately two years after the new NO<sub>2</sub> NAAQS was finalized and that since issuing those designations EPA has continued to work on collecting additional air quality data for the 2010 NO<sub>2</sub> NAAQS.

**EPA's Response:** These comments do not address, either in support or opposition, EPA's specific proposed designations actions for the areas discussed in the agency's February 6, 2013, letters regarding those specific areas. EPA is not yet taking any final action regarding other areas. Therefore, the comments are not germane to the specific proposed initial designations addressed in this final action, and are outside the scope of this action. It is therefore not necessary for EPA to respond to the points raised by these comments regarding other areas that are not addressed in this initial action, and EPA has neither proposed action for those areas nor taken final action for them in this round of designations.

However, for informational purposes, EPA wishes to remind stakeholders that in the SO<sub>2</sub> NAAQS final rule and past discussions with stakeholders, it has been frequently acknowledged that the current SO<sub>2</sub> monitoring network provides relatively limited geographic coverage, and many monitors in the existing network are not sited with the objective of characterizing source-oriented maximum concentrations. The EPA is moving forward at this time with area designations for a set of areas with monitors showing violations based on 3 calendar years of data. As the EPA explained in the proposed designations, the agency is not at this time prepared to propose or take final designations action on other areas not addressed by our first round of proposed designations. In light of potential public health impacts that may exist but are not being adequately characterized by the existing monitoring network, the EPA believes that it would be preferable to obtain additional data and information regarding SO<sub>2</sub> emissions at remaining areas to possibly support more definitive future nonattainment and/or attainment designations for such areas, rather than designating these areas as unclassifiable based on the limited information about SO<sub>2</sub> air quality the agency now has. The EPA developed a draft strategy for implementing the SO<sub>2</sub> NAAQS on the basis of several stakeholder discussions that focuses on characterizing air quality in areas with the largest sources and then using these data for future designation actions. Under this draft strategy, if followed, states would have the flexibility to characterize air quality through monitoring or modeling, and, in addition to any case-by-case designations issued based on new information, two additional general rounds of designations would provide states time to collect this information. In developing this draft strategy, which continues to evolve, the EPA has taken into consideration the comments we received following the Final SO<sub>2</sub> NAAQS Rule, the March 2011 draft designations guidance, the September 2011 draft implementation guidance, and the three stakeholder meetings held in 2012. After assessing the different issues raised in these comments, the EPA hopes to follow what it believes is the most common-sense approach for implementing the SO<sub>2</sub> NAAQS. The agency expects that this approach will allow each state to take a primary role in deciding how to characterize air quality in its own priority source areas.

***Comment:*** The commenters state that EPA has not identified a statutory basis to delay designations pending planned revisions to the SO<sub>2</sub> monitoring network requirements as part of the implementation of the 2010 1-hour SO<sub>2</sub> NAAQS. The commenters believe that in similar fashion to the 2008 lead NAAQS, EPA should not allow future planned revisions to the existing SO<sub>2</sub> monitoring network requirements to result in the delay of designations for any areas in the country.

***EPA's Response:*** As stated in the February 15, 2013 Federal Register notice of availability and public comment period for EPA's responses to state and tribal SO<sub>2</sub> designation recommendations (78 FR 11124), the EPA is not yet prepared to respond to state and tribal area designation recommendations, or seek public input thereon, for areas other than those with monitored violations of the 2010 SO<sub>2</sub> NAAQS addressed in the February 15, 2013 notice. EPA intends to address the remaining areas in the country, including those areas for which there is currently no SO<sub>2</sub> air monitoring data, in a subsequent round or multiple rounds of responses and designations once additional data are gathered. However, as is made clear in the February 15, 2013 notice, the EPA in that

action was not proposing as a regulatory action and was not soliciting public comments on the intended approach for these other areas, regarding either designations or implementation. Opportunities for additional public input on EPA's intended approach for these other areas will be available. We invite future public participation from this commenter and others when these opportunities are provided.

**Comment:** Multiple commenters discuss that the ambient monitoring data demonstrates compliance with the 1-hour SO<sub>2</sub> NAAQS and that EPA has approved their monitoring networks and even previous State Implementation Plans (SIPs). This information should not be disregarded. Additionally, EPA has acknowledged in the 120-day letters that 2009-2011 air quality data shows no violations of the 2010 SO<sub>2</sub> standard in many of Region 8's counties. Thus EPA should proceed with designations for all areas based on the information that is presently available and not defer. Further, the deferral ignores Section 107 of the Clean Air Act's timeline for designations and nowhere in the CAA does it allow EPA to defer designations any further than past the 1-year extension that EPA has already taken. EPA recognized and anticipated at the time of the 1-year extension that most areas of the country will be designated unclassifiable. One commenter discusses that EPA seems to be contemplating future rulemaking to require some level of modeling analysis to accompany the analysis on monitored data but since this rulemaking does not exist at this time designations should be completed. Another commenter discusses the negative effects of deferral which include development of a new SIP without having effective designations in place, harm to stakeholders by not providing clear designations, uncertainty for another eight years, state planners do not know where to direct resources due to EPA's indecisiveness, and the deferred planning schedule will overlap the 2015 designation process.

**EPA's Response:** EPA disagrees with the commenters assertion that EPA is disregarding monitoring data and previous SIPs in this initial round of final designations, since we are not at this time reaching any final conclusions about areas that do not have violating monitors. Objections to EPA's not yet addressing other areas are outside the scope of this final action, and all concerns regarding the treatment of such areas should be raised in response to EPA's future proposed designations for those areas.

**Comment:** One commenter says EPA should follow what was done for the 1-hour NO<sub>2</sub> designation process, which met the requirements of the CAA but also allowed for more time to collect data.

**EPA's Response:** At this time, we are only initially designating areas with violating monitors, and are not yet prepared to address the remaining areas. Concerns about how such remaining areas are addressed should be raised in response to our future proposed designations for those areas.

### **3.1.2. Basing Nonattainment Designations on Modeling**

**Comment:** A couple of commenters said that EPA's intention in its February 2013 120-day letters to designate 30 areas consisting of just 10 counties and 31 partial counties,

while not proposing or issuing final designations for the remaining roughly 3000 counties in the country for years beyond the June 2013 designation deadline is unlawful. The existing SO<sub>2</sub> monitoring network is inadequate to the task of ascertaining attainment; nor is reliance on monitors alone effective for determining what areas are failing to attain the NAAQS. Instead, EPA must base its designations on all evidence before it, including modeling analyses, as has been its longstanding historical practice.

EPA must designate all areas as nonattainment for which modeling shows exceedances of the NAAQS. Even under EPA's delayed implementation schedule, designations must be made based on modeling.

For the foregoing reasons, EPA must designate in June 2013 as nonattainment all those areas modeled to have exceedances of the 1-hour SO<sub>2</sub> NAAQS in the enclosed analyses. Absent such nonattainment findings, the SIPs prepared and submitted by the states will be inadequate unless they include or reference federally enforceable emission limitations informed by modeling sufficient to prevent exceedances of the standard.

***EPA's Response:*** The majority of these comments, including modeling analyses, do not address, either in support or opposition, the EPA's specific intended designations actions for the areas discussed in the agency's February 6, 2013, letters regarding those specific areas. Therefore, these points are not germane to the specific proposed initial designations, and are outside the scope of this action. It is therefore not necessary for the EPA to respond to the points raised by these comments regarding other areas that are not addressed in this initial action, and the EPA has neither proposed a designation action for those areas nor taken final action for them in this round of designations. Nor has the EPA proposed action or taken final action regarding whether other evidence such as modeling may support specific nonattainment designations under the 1-hour SO<sub>2</sub> NAAQS. The EPA will take the commenters' points under advisement when other areas are addressed, and urge commenters to re-submit their comments in response to the EPA's future proposed designations, when they occur, if the commenters still have such concerns at that time.

Nine of the SO<sub>2</sub> emissions sources identified in these comments are located within the boundaries of the nonattainment areas the EPA is finalizing at this time. The modeling and other information provided by the commenters does not appear to conflict with EPA's conclusions regarding the areas currently being designated nonattainment, which EPA is basing at this time on the available monitoring data. EPA is not at this time prepared to reach final conclusions based on such modeling information, either to reject or accept it as a basis for expanding our first round of nonattainment designations. EPA is moving forward at this time with area designations for a set of areas with 3 years of monitoring data showing violations. The Federal Register notice announcing the public comment period for the proposed designations was specific to those areas we are currently designating nonattainment and the commenters did not submit any information suggesting they object to the proposed nonattainment designations for those specific areas. EPA has developed a draft strategy for implementing the SO<sub>2</sub> NAAQS on the basis of meetings with several stakeholders that focuses on characterizing air quality in areas with the largest sources and in the more populated areas and using this data in

future designations. Under this draft strategy, if followed, states would have the flexibility to characterize air quality in these areas through monitoring or modeling, and additional rounds of designations (in addition to any case-by-case designations based on new information) would provide states time to collect this information and provide it to EPA as it becomes available. In developing this draft strategy, which continues to evolve, EPA has taken into consideration the comments we received following the Final SO<sub>2</sub> NAAQS Rule, the March 2011 draft designations guidance, the September 2011 draft implementation guidance, and the three stakeholder meetings held in 2012. After assessing the different issues raised in these comments, the EPA hopes to follow what it believes is the most common-sense approach for implementing the SO<sub>2</sub> NAAQS.

As stated above, the EPA did not propose and is not taking final action at this time to conclude whether modeling and other information besides monitoring is appropriate to support specific designations under the SO<sub>2</sub> NAAQS. Instead, we are only concluding that the initial designations of nonattainment are appropriate for the specific areas where 3 calendar years of monitoring data support a conclusion that the NAAQS is violated. The EPA intends to further address how modeling may be appropriately used in future designations for additional areas under the SO<sub>2</sub> NAAQS in forthcoming rulemaking and technical assistance documents.

### **3.1.3. Revocation of Old Standard**

**Comment:** EPA should forward with revocation of the older SO<sub>2</sub> standards (annual and 24-hour standards).

**EPA's Response:** The final SO<sub>2</sub> NAAQS rulemaking already addressed how and when revocation of the prior primary NAAQS would occur, and EPA did not propose to reopen that issue in this action. Therefore, it is outside the scope of this final designations action, and it is not necessary for EPA to respond to this comment. However, for informational purposes, EPA directs the commenter to the final NAAQS preamble's discussion of this issue, at 75 FR 35549-50, 35580-82, and to the regulatory text adopted with the NAAQS at 40 CFR 50.4(e). This regulatory text provides that the prior primary SO<sub>2</sub> NAAQS will remain applicable to an area until 1 year after the effective date of that area's designation under the 1-hour SO<sub>2</sub> NAAQS, and then no longer apply, except in the case of areas that at the time of promulgation of the 1-hour NAAQS were designated nonattainment under the prior primary NAAQS or were not meeting the requirements of a SIP call under the prior NAAQS; for those areas, the prior NAAQS would not be revoked until the area submits under CAA section 191 and EPA approves a SIP providing for attainment of the new 1-hour NAAQS. 40 CFR 50.4(e). In the preamble discussion of this issue, EPA explained that states were directed to continue implementing attainment and maintenance SIPs associated with the prior NAAQS until they are subsumed by any new planning and control requirements associated with the new NAAQS, in order to assure compliance with the Clean Air Act requirements of section 110(l), 172(e) and 193, as applicable. 75 FR at 35580-82. We note that in none of the several petitions for administrative reconsideration of the final NAAQS that we received did anyone ask us to revisit this issue. Nor did any of the numerous litigants challenging

the final NAAQS object to our treatment of revocation of the prior NAAQS. We do not regard the comments on the proposed designation action as constituting a new administrative petition for rulemaking to revise the final NAAQS rulemaking's promulgation of 40 CFR 50.4(e), as in our proposed designation action we gave no indication of any intention to reopen that issue. Finally, if we were to amend section 50.4(e), the rulemaking requirements of CAA section 307(d) would apply to such an action, while under CAA section 107 no such requirements apply to designations actions and we did not voluntarily designate this action as a section 307(d) rulemaking. Therefore, this action would not have been an appropriate one for undertaking any amendment to 40 CFR 50.4(e).

#### **3.1.4. Requests to Extend the Public Comment Period**

***Comment:*** Several commenters from industries stated that the 30-day comment period is too short to effectively review the EPA's response to state's recommendations and compile meaningful responses; therefore, they requested a 30-day extension to the public comment period. This will allow them time to more thoughtfully consider both the policy and technical issues associated with the proposal. Specifically, the SO<sub>2</sub> issue in the Billings/Laurel, MT area is very complex and EPA's upcoming designation will have a significant impact on the area. There exists much historical and contemporaneous information that makes this area unique. Some of this information has already been submitted to EPA, but there is additional information and related comments that EPA should consider and more time is needed to compile, review and submit this information. Commenters believe the additional time is reasonable and fair given the potential and severe long-term effects of the proposed determination on Montana, the county, its diverse stakeholders and in the proposed rejection of Montana's own 2011 proposal. Given EPA has had nearly 2 years to consider Montana's (and others) comments, it seems reasonable to allow the public an additional 30 days for review.

***EPA's Response:*** The EPA appreciates the time and effort of the commenters in participating in this matter. The EPA invited public comments on its responses to States and Tribes through March 18, 2013, and states were asked to comment by April 8, 2013. The EPA was able to accommodate the requests for an extension of the public comment period through April 8, 2013. Due to the statutory timeframe for promulgating designations set out in CAA Section 107(d), the EPA was unable to consider any public comments past April 8<sup>th</sup>. The April 8th deadline was necessary to allow EPA sufficient time to review and respond to all significant comments in advance of promulgating the 2010 SO<sub>2</sub> designations in July 2013.

### **3.2 Area-Specific Issues**

#### **3.2.1. EPA Region 1**

##### **3.2.1.1. State of Connecticut**

**Comment:** EPA should designate Connecticut as attainment for the SO<sub>2</sub> NAAQS. In addition to monitoring SO<sub>2</sub> levels well below the NAAQS, DEEP has completed modeling of all sources in Connecticut with greater than 100 tpy actual emissions. This modeling, when based on actual emissions for those emission units with CEM data and allowable emissions for those units without CEM, shows attainment of the NAAQS.

**EPA's Response:** In this designations action, EPA is limiting its final conclusions to those areas with 3 calendar years of data showing violations of the 1-hour SO<sub>2</sub> NAAQS. Therefore, this comment is outside the scope of this specific final designations action. In EPA's February 2013 proposed response to certain state and tribal designation recommendations for the SO<sub>2</sub> NAAQS, EPA solicited comments regarding a specific set of areas which the Agency proposed to designate nonattainment. We specifically stated we were not soliciting comments on or prepared to propose designations for other areas for which states and tribes have submitted designation recommendations, including any areas that may ultimately become designated unclassifiable or attainment or for which modeling might be used to support a final designations decision. The EPA is still not yet prepared to respond to state and tribal area designation recommendations for these other areas, and intends to address such areas in a subsequent round or multiple rounds of proposed responses and final designations actions. At this time, EPA is not reaching a final decision in response to whether Connecticut has shown attainment of the 1-hour SO<sub>2</sub> NAAQS.

### **3.2.1.2. Central New Hampshire**

**Comment:** One commenter agrees with EPA's proposal to designate a portion of New Hampshire as nonattainment for the SO<sub>2</sub> NAAQS. The commenter states that, "New Hampshire's recommendation correctly reflects the requirements of the Clean Air Act and its implementing regulations, which compel EPA to designate as SO<sub>2</sub> nonattainment areas the highlighted parts of Hillsborough, Merrimack, and Rockingham Counties. In addition, the proposed nonattainment designation is not only consistent with the law, but it is also necessary to protect public health and the environment." The highlighted area referred to in CLF's letter is the same area known as the Central New Hampshire SO<sub>2</sub> nonattainment area in EPA's Technical Support Document.

**EPA's Response:** The EPA acknowledges the commenter's support.

### **3.2.2. EPA Region 2**

#### **3.2.2.1. Warren County, NJ**

**Comment:** One commenter recommends a nonattainment designation for Warren County and its surrounding area due to the impacts from the nearby Portland Power Plant. The commenter requests EPA reconsider its decision to not move forward with a nonattainment designation of Warren County and its vicinity.

The commenter states that EPA is without authority under the Clean Air Act to delay this nonattainment designation, which is in accordance with the evidence. Data from the Columbia Lake Wildlife Management Area (Columbia Lake) monitor, as well as modeling performed by NJDEP and EPA, demonstrates that the NRG/GenOn Portland Power Plant significantly contributes to and causes nonattainment of the 1-hour SO<sub>2</sub> NAAQS in New Jersey. The monitor continues to measure exceedances of the health standard when the coal units operate and the wind blows from the Portland stacks toward the monitor.

***EPA's Response:*** After considering the recommendation and the additional information provided by New Jersey, we are still not prepared at this time to include the Warren County, New Jersey area in this initial round of final designations that is based only on monitors with 3 calendar years of data showing violations of the 1-hour SO<sub>2</sub> NAAQS. Moreover, as explained earlier, EPA is still not prepared at this time to base proposed or final nonattainment designations under the 1-hour NAAQS on modeling data, whether alone or as a supplement to complete or incomplete monitoring data. For this first round of SO<sub>2</sub> designations, only areas with monitored violations of the standard shown by 3 calendar years of data are being considered, as we explained in the proposal, and the Columbia Lake monitor had not at proposal and has still not been in operation at its site for 3 calendar years, and has not yet generated the necessary amount of data. Under EPA's rules, in order to calculate a valid design value for the area on which to base a designation based on monitoring, three complete calendar years of data are required. There are currently less than three complete calendar years of data for the air monitor located in Warren County, which began operating in September 2010. We recognize that additional data will be available soon, and we will continue to work with New Jersey and proceed as appropriate as additional monitoring data become available for the Warren County area, and as we further address how to consider modeling information to support designations under this NAAQS.

***Comment:*** One commenter mentioned that federal regulations allow for data substitution in accordance with 40 CFR Parts 50-Appendix T, "Interpretation of the Primary National Ambient Air Quality Standards for Oxides of Sulfur (sulfur dioxide)-Section 3(d). In fact, the USEPA is currently applying this rule to other sites with less than 75% data capture in a year, notably the monitor in Muscatine, Iowa, where missing data was substituted with zero values to declare the county as not attaining the health standard.

***EPA's Response:*** Since the monitor in Warren County, New Jersey has not been in operation and generating data for the necessary 3 calendar year period in order to support a final nonattainment designation based on monitoring, we consider the request to designate Warren County based on a shorter period of monitoring operation as outside the scope of this final designations action. We disagree with the suggestion that the data substitution authority of 40 CFR part 50, appendix T, section 3(d) could be appropriately used in a situation where a monitor has not actually been in place for 3 years and there is no period in which the monitor "failed" to generate the data it was expected to provide. The data substitution authority presumes that an actually sited monitor had been expected to be operating and generating data over the subject 3 year period, but had for some

reason failed to generate valid data for some period within its 3-year operating period. The 2010 final SO<sub>2</sub> NAAQS preamble discussion regarding the appendix T data substitution nowhere suggests that the data substitution authority should be used to create a fictional period of monitor operation and data where a monitor did not actually exist for the assumed 3-year period. See 75 FR at 35582-85, and 40 CFR part 50, appendix T, section 3. Such a situation is very different from the Muscatine, Iowa situation, in which a monitor has been in place and operation for well over the minimum 3-year period, but failed to generate the expected amount of valid data and there is a missing period for which to substitute data. In Warren County, there is no period in which the monitor failed to generate data it was expected to provide, so there is no “gap” for which to substitute data. Finally, we note that in Warren County the minimum necessary 3-year period of the monitor’s operation will soon pass, and after that the EPA will be able to work with New Jersey to proceed as appropriate in response to the data the monitor has produced at that time. Therefore, we are not now prepared in this final designations action to extend the data substitution authority to a situation where there is no failed monitored period for which to substitute data that, under our rules, does not appear to have been contemplated.

### **3.2.3. EPA Region 3**

#### **3.2.3.1. State of Delaware**

***Comment:*** On June 13, 2011 Governor Jack Markell recommended that the EPA designate each of Delaware’s three counties as unclassifiable for the 2010 75 ppb 1-hour SO<sub>2</sub> NAAQS. Delaware now has a complete SO<sub>2</sub> monitoring network, and has complete air dispersion modeling that clearly supports a designation of attainment for the entire state.

***EPA’s Response:*** The comment is outside the scope of this final designations action based on monitoring data. In this final action, EPA is only issuing final nonattainment area designations for areas with monitors that have 3 calendar years of data showing violations of the SO<sub>2</sub> NAAQS. EPA is not prepared that this time to address or take any action on other areas, which we will address in future final designations actions. Once EPA starts to address these other areas, the state may wish to provide this information for the record at that time.

#### **3.2.3.2. Allegheny, PA Area**

***Comment:*** NRG Energy agrees with USEPA’s proposed nonattainment area for Allegheny County. The commenter indicates it is appropriate that the Elrama Generating Station located in Washington County PA should not be included in the nonattainment area. SO<sub>2</sub> ambient air monitoring exceedances and SO<sub>2</sub> emissions from Elrama were reviewed by the commenter and the commenter surmises that the analysis suggests that exceedances in Allegheny County may occur independent of operations at Elrama. Additionally the commenter indicates that the emission units at Elrama are currently in a layup status.

***EPA's Response:*** The EPA concurs in general with the commenter's main point that EPA is not yet prepared to include the Elrama facility in Washington County, PA in the Allegheny PA nonattainment area. EPA does not feel there is sufficient information at this time to determine the designations status of any portion of Washington County PA, or support including any portion of Washington County PA in the initial Allegheny nonattainment area. At this time EPA is designating as nonattainment a portion of Allegheny County. Additional technical information on these topics can be found in the Allegheny PA Nonattainment Area section in the TSD that accompanies this action. However, EPA is also not yet prepared to reach any final decisions regarding whether the Elrama facility contributes to NAAQS violations on any other basis, and we will further address this source and Washington County in a future final designations action.

***Comment:*** One commenter requests that EPA include portions of Washington County in the nonattainment area designation for the following reasons:

1. Two significant sources of SO<sub>2</sub> that combine to emit over 3,500 tons of SO<sub>2</sub> (based upon USEPA data) are located in close proximity of the Liberty monitor; and their location is south/southwest of the Liberty monitor, which EPA acknowledges are in a geographic location most likely to impact the Liberty monitor.

2. One source in Washington County is a local source (just over the border between Allegheny and Washington) that directly contributes to air quality conditions during inversion events which EPA alleges are the reasons for the exceedance at the Liberty monitor.

3. EPA has acknowledged the appropriateness to include significant sources of SO<sub>2</sub> beyond county lines in nonattainment designations, as it has with the Indiana nonattainment area, which includes Armstrong County.

For these reasons, the commenter encourages EPA and PADEP to include portions of Washington County with large SO<sub>2</sub> sources that are located in a geographic area most likely to impact the Liberty monitor as part of the nonattainment area.

***EPA's Response:*** The EPA is not yet prepared, based on current information related to the monitored violation in Allegheny County, to conclude that sources in Washington County PA contribute to those monitored violations. The EPA will further address the Washington County sources in a future final designations action. While the EPA acknowledges that in some cases it is appropriate to include nearby sources beyond county lines in this initial round of monitoring-based designations, inclusion of additional sources is on a case by case basis, and in many cases we are choosing to limit the scope of our initial nonattainment designations while reserving for future analysis in a subsequent round of designations whether nearby sources and areas are causing or contributing to violations. In such cases, as in this one, we are not yet reaching final conclusions regarding initially excluded sources and areas. Regarding items #1 and #2, for now EPA acknowledges that there are sources in Washington County located near Allegheny County, but notes that emissions from these sources have been decreasing and

that one source is not currently operating. Despite an overall decrease in emissions from the sources in Washington County, the SO<sub>2</sub> levels at the Liberty monitor in Allegheny County has shown little variation, suggesting it is being primarily impacted by other sources. Additional information and technical analyses for both the Indiana PA Nonattainment Area and the Allegheny PA Nonattainment Area can be found in the Pennsylvania TSD which accompanies this action.

**Comment:** One commenter applied EPA's five factors for determining attainment with the new 1-hour SO<sub>2</sub> NAAQS and has determined that most of Allegheny County should not be designated as nonattainment. Rather, the commenter proposes the partial county "Lower Monongahela Valley SO<sub>2</sub> Nonattainment Area," which would include the following municipalities in Allegheny County: West Mifflin, Dravosburg, McKeesport, Versailles, Port Vue, Glassport, Liberty, Lincoln, Clairton, West Elizabeth, Elizabeth Township, Borough of Elizabeth, Forward, Jefferson Hills, and Pleasant Hills. Union Township and Finleyville Borough in Washington County should also be included in this nonattainment area as a partial county combination of the Monongahela Valley and Allegheny County Air Basins within the Southwest Pennsylvania Intrastate AQCR. The commenter asserts that the remainder of the county should be excluded from the nonattainment designation based on the application of EPA's five factors. Based on the results of the commenter's analysis using EPA's five factors for determining attainment with the new 1-hour SO<sub>2</sub> NAAQS, the commenter recommends that only the municipalities in Allegheny County and Washington County that were identified above be designated as the "Lower Monongahela Valley SO<sub>2</sub> Nonattainment Area." In addition, the commenter recommends that portions of Washington County should also be included in the Allegheny County nonattainment areas.

**EPA's Response:** EPA agrees that only a portion of Allegheny County needs to be part of the initial nonattainment area, while reserving for further analysis in a future designations action how other nearby areas should be designated. However in addition to the areas identified by ACHD, EPA is designating a few other portions of the county as part of the nonattainment area since a source of significant SO<sub>2</sub> emissions is located within these additional portions of the county.. EPA does not agree that there is yet sufficient information to determine that a portion of Washington County PA should also be included in the Allegheny PA Nonattainment Area. Sources in Washington County will be further addressed in a future final designations action. Additional information can be found on these issues in the PA TSD in the section discussing the Allegheny PA Nonattainment Area.

**Comment:** Reduce the Allegheny County nonattainment area to the municipalities of the City of Clairton, the City of McKeesport, Dravosburg, Elizabeth, Glassport, Jefferson Hills, Liberty, Lincoln, Pleasant Hills, Port Vue, Versailles, West Elizabeth and West Mifflin Boroughs, and Elizabeth and Forward Townships. The reason for the recommended modification of the Allegheny County nonattainment area is outlined in Pennsylvania's revised recommendation letter, which can be found in the federal docket system.

***EPA's Response:*** EPA agrees that only a portion of Allegheny County needs to be part of the initial nonattainment area, while reserving for further analysis in a future designations action how other nearby areas should be designated. However in addition to the areas identified by the Commonwealth, EPA is designating some other portions of the county as part of the nonattainment area since a source of significant SO<sub>2</sub> emissions is located within these additional portions of the county . Additional information can be found in the TSD in the discussion of the Allegheny PA Nonattainment Area.

#### **3.2.3.3. Beaver, PA Area**

***Comment:*** Reduce the Beaver County nonattainment area to six municipalities: Brighton, Potter and Vanport Townships and Industry, Midland, and Shippingport Boroughs. The reason for the recommended modification of the Beaver County nonattainment area is outlined in Pennsylvania's revised recommendation letter, which can be found in the federal docket system.

***EPA's Response:*** EPA reviewed the information provided by the Commonwealth and concurs that the initial Beaver PA Nonattainment Area should be reduced from the original proposal of the entire county to a partial county consisting of the municipalities identified by the Commonwealth of Pennsylvania. EPA will designate currently excluded areas in a future round of final designations. Additional information and analysis regarding this area is contained in the PA TSD that accompanies this action in the section of the TSD that discusses the Beaver PA Nonattainment Area.

#### **3.2.3.4. Indiana, PA Area**

***Comment:*** EPA responded to the Commonwealth's designation recommendations, agreeing with all of Pennsylvania's original designation recommendations, but also including a portion of Armstrong County as part of a nonattainment area. After consideration of EPA's intention to add a portion of Armstrong County, and after further analysis, the state recommends that EPA remove the intended partial designation of Armstrong County for the reasons outlined in Pennsylvania's revised recommendation letter, which can be found in the federal docket system.

***EPA's Response:*** EPA agrees with the Commonwealth regarding the inclusion of all of Indiana County in the nonattainment area. However, EPA does not concur with removing the portions of Armstrong County that were in the proposed nonattainment area. EPA reviewed the additional information provided by the Commonwealth but did not find it sufficient to justify removing the portions of Armstrong county from the nonattainment area. Additional information and analysis regarding this area is contained in the PA TSD that accompanies this action in the section of the TSD that discusses the Indiana PA Nonattainment Area.

#### **3.2.3.5. Warren, PA Area**

**Comment:** Reduce the Warren County nonattainment area to four municipalities: Conewago, Glade and Pleasant Townships and the City of Warren. The reason for the recommended modification of the Warren County nonattainment area is outlined in Pennsylvania’s revised recommendation letter, which can be found in the federal docket system.

**EPA’s Response:** EPA reviewed the information provided by the Commonwealth and concurs that the initial Warren PA Nonattainment Area should be reduced from the original proposal of the entire county to a partial county consisting of the municipalities identified by the Commonwealth of Pennsylvania. Currently excluded areas will be designated in a future round of final designations. Additional information and analysis regarding this area is contained in the PA TSD that accompanies this action in the section of the TSD that discusses the Warren PA Nonattainment Area.

### **3.2.4. EPA Region 4**

#### **3.2.4.1. Campbell-Clermont Counties, KY-OH Area**

Comments regarding this area are addressed in section 3.2.9.1

#### **3.2.4.2. Nassau County, FL Area**

**Comment:** One commenter believes the proposed nonattainment designation is not appropriate because the commenter believes that the data used to make the determination is not representative of ambient concentrations of SO<sub>2</sub>. As described below, there are technical problems with the location of the ambient monitoring station and the data validation process. At this time Nassau County should be designated as “unclassifiable” and a more suitable monitoring station should be selected for determination of the county's attainment status.

Specifically, the commenter expresses concerns that SO<sub>2</sub> emissions from a nearby wastewater treatment plant and diesel emissions from truck traffic on an adjacent driveway impact the Nassau County monitoring site operated by the State of Florida, and that it is not representative of ambient air. The commenter also comments that the data from the Nassau County monitor should not be considered valid because the data from a nearby monitor operated by Rayonier “differ substantially” from the Nassau County monitor data.

**EPA’s Response:** EPA disagrees with the commenter. The State of Florida submitted recommendations for SO<sub>2</sub> designations which included certified data from an approved monitoring plan for the Nassau County area. In addition, the State performed air quality modeling for that area to support its recommended nonattainment boundary. In our February 6, 2013, letter to the State, EPA did not propose to modify Florida’s recommended boundary, and agreed with the State’s technical analysis for the area.

Regarding the suitability of Florida's SO<sub>2</sub> monitoring station in Nassau County, FL, EPA disagrees with the commenter that the Nassau County monitoring data should be considered invalid. The State of Florida has operated the monitor in accordance with all of the requirements of 40 CFR Part 58, and has certified to EPA that the data is accurate and complete. After reviewing the nearby sources, EPA believes that the wastewater treatment plant and nearby truck traffic are not significant sources of SO<sub>2</sub> emissions, and that the monitor is properly sited and is representative of ambient air. EPA also does not agree that the data discrepancies observed between Rayonier's SO<sub>2</sub> monitoring site and Florida's SO<sub>2</sub> monitoring site should invalidate Florida's monitoring data. Since the Rayonier monitoring data was not collected using an EPA approved Quality Assurance Project Plan, the data do not meet the quality assurance requirements of 40 CFR Part 58.

Therefore, based upon the above discussion, EPA believes that the appropriate response is to agree with the State's recommendation and initially designate a portion of Nassau County, FL as nonattainment. We will designate currently excluded areas in a future round of final designations. See EPA's TSD for this area for more rationale on why the nonattainment area designation is appropriate for this area.

#### **3.2.4.3. Sullivan County, TN Area**

**Comment:** The TSD defines a portion of Sullivan County which consists of a 4.3 kilometer radius circle centered on a point within the Eastman Chemical Company facility. The TSD states that this circle encompasses the Eastman facility as well as the one violating monitor in the County. The TSD also states that this boundary encompasses two local SO<sub>2</sub> sources, AFG Industries and Domtar Paper Company. In fact, it appears the location of the Domtar facility governs the size (4.3 kilometer radius circle) of the proposed boundary. Table 3 in the TSD lists AFG as emitting 49 tons per year of SO<sub>2</sub> and Domtar emitting 892 tons per year, based on the 2008 National Emissions Inventory. It is Eastman's understanding that the AFG facility has ceased operation and that the Domtar facility does not emit SO<sub>2</sub>. The commenter's review of the 2008 NEI found on EPA's website showed no SO<sub>2</sub> emissions from the Domtar facility. Given that inclusion of these facilities results in a larger non-attainment area, Eastman requests the boundary be re-defined to be centered on Eastman's predominant sources of SO<sub>2</sub> (coal-fired powerhouses) and have a radius large enough to encompass the violating monitor. This would result in an area defined by a circle having its center at the B-253 power house coordinates 36.5186 N; 82.5350 W and having a 3-kilometer radius.

The Commenter contends that this boundary will ensure that the only significant source of SO<sub>2</sub> emissions (Eastman) in the vicinity is evaluated for control measures that can be included in an attainment demonstration for the area and that the plan will ensure that the air quality at the location of the violating monitor (Ross N Robinson) as well as the other long-term monitor in the area (Meadowview) is predicted to meet the NAAQS. Note that the requested boundary encompasses both monitors mentioned above.

**EPA's Response:** EPA has evaluated this additional information and considered it for the final determination for the initial boundary for this area. Based on this information

and a revised recommendation from the State of Tennessee (which is consistent with Eastman's recommendation), EPA has revised the boundary for the final initial nonattainment area for Sullivan County. EPA will designate currently excluded areas in a future round of final designations. Please see the TSD for the Sullivan County, TN Area for the updated boundary.

### **3.2.5. EPA Region 5**

#### **3.2.5.1. Lemont, IL Area**

***Comment:*** Citizens Against Ruining the Environment (CARE) and the Respiratory Health Association (RHA) generally support the preliminary determinations regarding Illinois regions that do not attain the 2010 SO<sub>2</sub> NAAQS based on monitored air quality data. Because of the number of human receptors, there is an urgent public health justification for IL EPA and U.S. EPA to plan for and achieve attainment as soon as possible, without waiting until 2017.

***EPA's Response:*** EPA appreciates the support from CARE and RHA for promulgating nonattainment designations for the Lemont and Pekin areas. While the attainment date is not directly addressed in this rulemaking regarding designations, the promulgation of nonattainment designations will trigger nonattainment planning requirements that will require Illinois to develop a plan to achieve attainment as expeditiously as practicable but no later than five years after the area becomes designated nonattainment.

***Comment:*** Specifically as to the Lemont non-attainment area, CARE and RHA assert this non-attainment area includes at least the three Townships in the Illinois recommendation and the U.S. EPA response. CARE and RHA also concur that the stationary sources of air emissions contributing to this non-attainment include at least the Will County coal-fired power plant, the Citgo Refinery and Oxbow Calcining, all of which are in an industrial corridor immediately to the west and southwest of the Lemont monitor.

***EPA's Response:*** EPA appreciates this support for the proposed nonattainment area boundaries.

***Comment:*** Oxbow Calcining is the closest SO<sub>2</sub> source to the Lemont monitor. Both IL and U.S. EPA assert Oxbow Calcining causes and contribute to non-attainment with the 2010 SO<sub>2</sub> NAAQS. Yet, there is no federally enforceable annual SO<sub>2</sub> emission limit in the Oxbow air permit.

***EPA's Response:*** At issue here is what area is violating or contributing to violations at the Lemont monitor, and this comment implicitly supports EPA's proposal to include Oxbow Calcining in the nonattainment. The designation of nonattainment areas triggers nonattainment planning requirements, and comments regarding the presence or absence of acceptable emission limits are more germane to the process of Illinois developing its nonattainment plan and EPA rulemaking on that plan.

**Comment:** In characterizing the sources that cause or contribute to non-attainment in the Lemont area, both U.S. EPA and IL EPA focus on three- contiguous sources in an industrial corridor to the west and southwest of the Lemont monitor. However, there is a fourth facility in this same corridor, the Seneca Petroleum facility, that was not referenced in this source assessment.

**EPA's Response:** According to the 2008 NEI, the Seneca Petroleum facility either does not exist or emits less than 100 tons per year. In any case, this facility is within the nonattainment area that EPA is promulgating, based on the contributions of other nearby facilities, irrespective of the emission level of this facility.

**Comment:** Midwest Generation ("MWG") operates coal-fired power plants in the Lemont non-attainment area (the Will County facility) and the Pekin non-attainment area (the Powerton facility). These facilities are identified by IL EPA and U.S. EPA as being major sources that cause and contribute to SO<sub>2</sub> non-attainment in the Lemont and Pekin areas. Midwest Generation also operates a coal-fired power plant in Joliet, immediately to the south of the Lemont non-attainment area, which today is a significantly larger SO<sub>2</sub> source than its Will County counterpart. Today, none of these coal-burning facilities employ flue gas desulfurization pollution control equipment. None of the facilities has (or ever had) a Title 5/CAAPP operating permit; in fact, the last effective operating permits for these facilities were issued by Illinois in the mid-1990's as federally enforceable state operating permits. All of these facilities are subject to an enforcement case initiated by the United States of America and the State of Illinois for undertaking major modifications without undergoing new source review (United States of America and the State of Illinois and Citizens Against Ruining the Environment v. Midwest Generation, LLC, Edison Mission Energy and Commonwealth Edison Company, No. 09-5277, United States District Court, Northern District of Illinois, Eastern Division; CARE is a Plaintiff-Intervener in this case).

**EPA's Response:** Again, comments regarding the presence or absence of acceptable emission limits are more germane to the process of Illinois developing its nonattainment plan and EPA rulemaking on that plan.

**Comment:** Joliet, with a population of 148,402, is downwind of two large SO<sub>2</sub> sources – Midwest Generation's Joliet plant and the Exxon-Mobil refinery – that Illinois discounted as contributing to the monitored NAAQS exceedances in Lemont, but which RHA and CARE assert must be included in any credible analysis of regional SO<sub>2</sub> ambient air conditions and contributing sources.

CARE and RHA question whether the boundaries of the Lemont nonattainment area are expansive enough, and whether there are other stationary sources that are significantly contributing to nonattainment. To ensure that the nonattainment area is being accurately defined, CARE and RHA assert that an additional monitor should be installed to assess ambient air conditions to the south of the existing boundary of the proposed nonattainment area.

CARE and RHA also submitted information developed by Sierra Club in support of a filing before the Illinois Pollution Control Board against Midwest Generation. This information includes modeling conducted by Sierra Club based on allowable emissions from Midwest Generation's Joliet plant, indicating a violation east southeast of the facility. CARE and RHA state that Sierra Club used modeling to assess the impact of the Joliet plant in the absence of monitoring data that precisely delineates conditions downwind. CARE and RHA then assert that there does not appear to be a basis for a southern boundary of the Lemont area that neatly excises the contributions of the Joliet facility and excludes Joliet from the nonattainment area.

***EPA's Response:*** The comments from CARE and RHA provide no information on impacts of the Midwest Generation's Joliet plant on the violation recorded in Lemont. The attached material from Sierra Club references maps showing a distribution of impacts of the Joliet plant, but these maps were not included in CARE and RHA's comments. The only location specifically addressed in these comments is east southeast of the facility, which is a significant distance from Lemont. Furthermore, no analysis is provided to indicate that high impacts at the Lemont monitor from the Joliet facility are occurring at a time when the Lemont monitor is recording high concentrations of SO<sub>2</sub>. CARE and RHA's comments also do not provide evidence that the Exxon Mobil refinery contributes to violations at the Lemont monitor. To the contrary, pollution rose information provided with Illinois' recommendations indicates that violations predominantly occur with west winds. Since these two facilities are considerable distance from the Lemont monitor, and since CARE and RHA have provided no evidence that these facilities contribute to the violations recorded at the Lemont monitor, EPA continues to believe that the proposed nonattainment area boundaries appropriately exclude these two facilities.

The comments of CARE and RHA suggest that EPA take one of three options: 1) designate a larger nonattainment area that includes the area of violation and contributing sources both in Lemont and in Joliet, 2) designate the Joliet area as well as the Lemont areas as separate nonattainment areas, or 3) designate the Lemont area as nonattainment and require further monitoring to assess whether the Joliet area is violating the standard. For reasons given above, EPA believes that the proposed Lemont nonattainment area boundaries are the appropriate boundaries for this area. EPA is not currently acting on other areas such as the Joliet area. EPA has posted a strategy paper on the internet that envisions requiring further analysis of areas like the Joliet area, as CARE and RHA suggest. However, action on the Joliet area is not part of this rulemaking, which in Northeast Illinois addresses only the Lemont area.

***Comment:*** RHA and CARE request clarification on the construction permit standards that will be imposed on a new SO<sub>2</sub> source in the newly designated nonattainment areas (which would also apply to major modifications to existing sources).

RHA and CARE also request SO<sub>2</sub> emissions information provided by the Citgo Refinery, which is operating subject to a federal Consent Decree. It appears that Citgo's SO<sub>2</sub>

emissions have been reduced exponentially. Can U.S. EPA characterize Citgo's SO<sub>2</sub> emissions over the past five years, and confirm this significant downward trend?

***EPA's Response:*** These comments are not germane to this rulemaking on designations. Nonattainment planning requirements will be addressed separately. Illinois will evaluate emissions from the Citgo Refinery as part of its nonattainment planning process.

(See also a comment and response presented below concerning both the Lemont and Pekin areas.)

***Comment:*** The ExxonMobil Joliet Refinery supports the EPA's concurrence with the Illinois EPA's recommendation that Will County be divided, and to ask that all townships, other than Lockport, and DuPage townships be designated as attainment or unclassifiable as they do not have a significant impact on the Cook County S01 monitor AQS ID # 17-031-1601 located at 729 Houston, Lemont, which is located in Cook County just across the Will County boundary.

***EPA's Response:*** EPA appreciates ExxonMobil's support of the Lemont nonattainment area. However, no action is being taken on the remainder of Will Country in this rule making, so the remainder of Will Country will not receive an attainment or unclassifiable designation.

### **3.2.5.2. Pekin, IL Area**

***Comment:*** Both the Illinois Environmental Regulatory Group (IERG) and Ameren submitted comments urging EPA to exclude Hollis Township from the nonattainment area based on low frequency of winds coming from that direction, particularly during hours of violating when SO<sub>2</sub> concentrations exceeded the standard. IERG states that the meteorology analysis submitted by IEPA is not supportive of the inclusion of this area. They provided two composite photos, one of a wind rose from IEPA layered on a map from IEPA of the area showing the locations of the facilities and the other of a pollution rose from IEPA layered on that same map. IERG agrees with IEPA's assessment that sources to the west and southwest most likely contribute to the exceedance. IERG compared wind direction to hours of SO<sub>2</sub> exceedances from 2007 to 2011 and provided percentages of the wind direction during exceedances. They found that the wind direction was variable 3.7% of the time, from the NW 0.4%, and not from the other northerly directions.

Ameren stated that their E.D. Edwards facility is almost directly north of the monitor and that wind from the north accounts for less than 5% of the total wind direction occurrences and therefore the probability of the facility causing an exceedance is low. Ameren also states that 99% of the violating SO<sub>2</sub> values at that monitor occurred when winds were from the South-Southwest to West-Northwest with the majority from the West and West-Southwest. Ameren stated that the wind speeds were usually greater than 10 mph during exceedances, which points to the facilities with short stack heights in the west. Ameren believes that emission levels are not the only factor to be considered, and EPA

should look at the meteorology of a monitor and the actual locations of facilities, stack heights, stack flow and temperature, and other relevant operating characteristics of the facilities. Ameren also provided a pollution rose in graph form and a table of hourly SO<sub>2</sub> exceedance from 2008-2010 with the associated wind direction and speed.

***EPA's Response:*** EPA believes that winds come from the direction of E.D. Edwards with sufficient frequency that the substantial emissions of this facility warrant being considered to contribute to the violation in Pekin. Ameren states that the winds from the north account for less than 5 percent of the total wind occurrences. An even distribution of winds among 16 wind directions would mean about 6 percent of the winds from each direction, so this does not signify particularly low frequency. As shown in IEPA's initial recommendation, of the sixteen wind directions, eleven of the directions occur 3 to 6% of the time. Four of the directions occur 6 to 9% of the time with the most frequent southerly direction occurring less than 15% of the time. Thus, winds coming from the direction of E.D. Edwards plant toward the Pekin monitor occur with sufficient frequency that the facility has significant potential to contribute to the monitored violations. Most of IERG's and Ameren's comments focus on winds during hours when SO<sub>2</sub> concentrations at the Pekin monitor exceeded the level of the standard. EPA agrees that the winds for the Pekin Nonattainment area are most frequently from the south and west wind directions during times of exceedances. However, this statement does not answer the question of whether winds from the direction of the E.D. Edwards plant occur with sufficient frequency to conclude that the plant contributes to the violation.

In response to IERG's and Ameren's presentation of average wind directions during hours of SO<sub>2</sub> exceedances for 2008 to 2010, EPA conducted a similar review. EPA examined the average of two-minute wind direction samples instead of an hourly sample to better evaluate variable winds. From this review, EPA identified numerous occasions when exceedances occurred during times with generally northerly winds. For example, EPA found that on May 9, 2010 at 14:00, the SO<sub>2</sub> value was monitored at 97 ppb with an hourly average wind direction of 343 degrees (NNW) with a wind speed of 4 mph. The facility likely cause the greatest impact from this direction is the Ameren E.D. Edwards facility. Another example was an exceedance of 109 ppb on April 21, 2010 at 15:00, when the wind was blowing at 5 mph at 317 degrees. This exceedance, with northwest winds, suggests significant contributions from either or both of the facilities in that direction, i.e., either or both of E.D. Edwards and the Aventine Renewable Energy facility in Pekin Township.

Wind data supplied by Ameren showed an exceedance on January 17, 2010 of 89 ppb. The wind direction is shown to vary during this hour from 10 to 40 degrees, which suggests a significant contribution to the exceedance from the Ameren E.D. Edwards facility. Ameren's data also show several instances of variable wind direction and calm winds with exceedances associated with the time period. With calm winds, significant contributions are likely to arise from nearby facilities with significant emissions in several directions from the monitor, including in particular in the direction from which the E.D. Edwards plant would contribute.

When winds are variable, a proper analysis often requires assessing the variety of wind directions observed during the pertinent period. For example, on April 9, 2009, an exceedance of 119 ppb was recorded starting at 10:00. The hourly wind data showed the average wind direction to be 233 degrees. However, in looking at just a twenty minute period of the actual two minute rolling averages, from 10:35 to 10:55, the wind direction shifted quite frequently, as seen in the table below:

Local Time	Wind Direction (Degrees)
10:35	347
10:36	354
10:37	325
10:38	255
10:39	229
10:40	239
10:41	237
10:42	238
10:43	244
10:44	204
10:45	168
10:46	155
10:47	155
10:48	161
10:49	108
10:50	27
10:51	351
10:52	348
10:53	341
10:54	343
10:55	2

Several of these data points are in the northerly direction of the facility, suggesting that the E.D. Edwards facility was contributing to the exceedance during several portions of the hour.

These two minute data are two minute averages of wind direction and speed that are rolling every minute, meaning there are 60 two minute averages every hour. These data show a more accurate picture of the wind patterns during a recorded hour. The data allow for the change of wind direction during the hour to be observed instead of basing the entire hour on one average or one reading. The table below shows that looking beyond a single wind direction reading shows several additional instances of possible contribution to the exceedances from the direction of the Ameren facility. The table below looks at the two minute data during hours of exceedance. The number of occurrences is the number of rolling two minute data during the hour that were between 315 (Northwest) and 11 (North by East), which were used to indicate potential for significant contribution from the E.D. Edwards facility. The total possible number of occurrences during an hour is 60 due to the average rolling every minute.

<b>Date</b>	<b>Hour</b>	<b>Number of Occurrences</b>	<b>Exceedance Value</b>
4/9/2009	10:00-11:00	8	78
5/31/2009	11:00-12:00	5	144
5/31/2009	12:00-13:00	14	112
6/9/2009	12:00-13:00	4	137
6/9/2009	13:00-14:00	3	83
7/15/2009	12:00-13:00	1	84
7/31/2009	9:00-10:00	5	76
10/4/2009	14:00-15:00	3	98
1/17/2010	1:00-2:00	7	89
4/21/2010	15:00-16:00	25	109
5/9/2010	12:00-13:00	9	104
5/9/2010	14:00-15:00	39	97
10/1/2010	13:00-14:00	15	97
3/21/2011	12:00-13:00	9	126
5/7/2011	13:00-14:00	1	76
8/8/2011	17:00-18:00	24	95
9/25/2011	13:00-14:00	5	104

On each of these occasions, the E.D. Edwards facility was likely contributing to the exceedance during at least some portion of the hour.

This review suggests that, in addition to winds in the direction from the E.D. Edwards facility toward the Pekin monitor being common in general, winds in this direction also occur periodically on occasions when the Pekin monitor shows SO<sub>2</sub> concentrations to exceed the standard. Furthermore, winds in this area are frequently variable, such that a significant fraction of the contribution to exceedances could be arising from the E.D. Edwards facility on these occasions as well. Given the quantity of emissions from this facility (approximately 11,000 tons per year), EPA believes that winds blow from this facility toward the Pekin monitor with sufficient frequency, including specifically on days with high monitored concentrations, to warrant this facility being considered to contribute to violations at the monitor.

**Comment:** Midwest Generation ("MWG") operates coal-fired power plants in the Lemont non-attainment area (the Will County facility) and the Pekin non-attainment area (the Powerton facility). These facilities are identified by IL EPA and U.S. EPA as being major sources that cause and contribute to SO<sub>2</sub> non-attainment in the Lemont and Pekin areas. Midwest Generation also operates a coal-fired power plant in Joliet, immediately to the south of the Lemont non-attainment area, which today is a significantly larger SO<sub>2</sub> source than its Will County counterpart. Today, none of these coal-burning facilities employ flue gas desulfurization pollution control equipment. None of the facilities has (or ever had) a Title 5/CAAPP operating permit; in fact, the last effective operating permits

for these facilities were issued by Illinois in the mid-1990's as federally enforceable state operating permits. All of these facilities are subject to an enforcement case initiated by the United States of America and the State of Illinois for undertaking major modifications without undergoing new source review (United States of America and the State of Illinois and Citizens Against Ruining the Environment v. Midwest Generation, LLC, Edison Mission Energy and Commonwealth Edison Company, No. 09-5277, United States District Court, Northern District of Illinois, Eastern Division; CARE is a Plaintiff-Intervener in this case).

***EPA's Response:*** This information supports the proposed nonattainment area boundaries. Illinois will need to consider the need for further control of these facilities as it prepares its nonattainment area plans.

### **3.2.5.3 Detroit, MI Area**

***Comment:*** U. S. Steel requested that USEPA include the portions of Monroe County that include the DTE Monroe Station in the Detroit nonattainment area. U.S. Steel observed that this power plant is a significant source of SO<sub>2</sub>. U.S. Steel observed that before 2009, this plant was the “second largest coal-fired power plant in the nation.” U.S. Steel asserted further that air quality improvements following installation of scrubbers on two of the four units in 2009 “suggest a strong correlation between [emissions at Monroe Station and Detroit air quality].” U.S. Steel quoted EPA’s rationale for excluding Monroe Station from the nonattainment area, and objects that “the data support a finding that if similar controls were installed on the two remaining units, . . . then the [violating monitor] would most likely demonstrate attainment.”

U.S. Steel submitted a presentation prepared by Mike Lebeis of DTE Energy. This presentation describes a review of the seasonal frequency of elevated SO<sub>2</sub> concentrations at the critical monitor in Detroit (at the Southwest High School, or SWHS) and notes significant changes in SO<sub>2</sub> emissions in Southeast Michigan during the study period, in particular the installation of scrubbers on Units 3 and 4 in November and June 2009, respectively, and the temporary shutdown of the Detroit area U.S. Steel facility from November 2008 to August 2009. The presentation highlights the fact that only seven occasions of concentrations above 75 ppb occurred in 2009, during none of which was U.S. Steel operating. The presentation includes a slide entitled “Summary Findings – Hypothesis” which speculates that high SO<sub>2</sub> concentrations arise from a combination of impacts from regional sources and local sources, but no analyses are presented that assess the relative impacts of regional versus local sources. Nevertheless, U.S. Steel characterizes the presentation as “clearly [suggesting] that that both regional SO<sub>2</sub> sources and local SO<sub>2</sub> sources are the reasons for elevated SO<sub>2</sub> readings at the SWHS monitor. Furthermore, the analysis indicates that since 2010, there has been a noticeable drop in the number of hours per year that SO<sub>2</sub> exceeds 75 ppb at the SHWS monitor.” According to the Lebeis presentation, this would suggest that the lower readings at the SWHS monitor are attributable at least in part to the improvements at the Monroe Power Plant. This presentation also states that in 2009, the only hours when the NAAQS was exceeded at

SWHS occurred in the Spring when US Steel operations were curtailed,' suggesting that U.S. Steel, a local source, does not significantly impact the SWHS monitor. For these reasons, U. S. Steel encouraged USEPA and MDEQ to include portions of Monroe County to include Monroe Station, a large SO<sub>2</sub> source located upwind of the SWHS monitor, as part of the "Wayne County" nonattainment area.

***EPA's Response:*** Neither in its comments nor in its attached presentation did U.S. Steel provide any analysis of the impacts of Monroe Station in relation to the impacts of other sources that are closer to the monitor. Instead, the evidence U.S. Steel presents must be considered anecdotal, reflecting the frequency of elevated SO<sub>2</sub> concentrations in conjunction with information about variations in emission rates. The presentation itself attributes the relatively low number of exceedances of 75 ppb recorded in 2009 to the relatively cool temperatures recorded that year. Indeed, the variations in the frequency of exceedances in other years may simply reflect variations in meteorology. Other data in the Lebeis presentation, namely the fact that few exceedances occur when U.S. Steel is shutdown and more exceedances occur when U.S. Steel is operating, suggest support for a conclusion that U.S. Steel is a significant contributor to the exceedances, but the influence of meteorological variations is too important to be able to use these statistics to reach either this or U.S. Steel's conclusion.

The Lebeis presentation reports that 2010 has the greatest number of exceedances of the 75 ppb standard, with moderately low numbers of exceedances occurring in 2011 and 2012. U.S. Steel asserts that the low numbers of exceedances in 2011 and 2012 reflect the impact of controls at Monroe Station, but U.S. Steel offers no explanation as to why the high number of exceedances in 2010, which also came after the implementation of controls at two units of Monroe Station, should not be considered evidence that these controls had no impact on concentrations at SWHS. Indeed, considering the high frequency of exceedances in 2010 according to U.S. Steel's reasoning, one would infer that the emission reductions at Monroe Station have minimal effect and the resumption of emissions at U.S. Steel has significant effect, a conclusion that is diametrically the opposite of U.S. Steel's conclusion from examining 2011 and 2012 data. EPA finds a more plausible conclusion to be that U.S. Steel's comments, and the Lebeis presentation that they rely on, are simply unreliable evidence as to the contribution of Monroe Station. EPA agrees that south winds are common on days with elevated concentrations at the SWHS monitor. However, EPA must evaluate further whether Monroe Station, located approximately 54 kilometers from the monitor, should be considered to be a nearby source that contributes to the violations recorded at the monitor.

U.S. Steel conceded that Monroe Station would not be considered a source that is "local" to the SWHS monitor. Under Clean Air Act section 107, nonattainment areas, in addition to including the areas violating the standard, are to include the nearby sources that contribute to the violation. U.S. Steel does not address criteria for judging a source to be nearby, but U.S. Steel implicitly concedes that Monroe Station could reasonably be considered not to be nearby the SWHS monitor.

U.S. Steel also does not address the significance of the data showing monitored design values below the SO<sub>2</sub> standard at the Allen Park monitor, a monitor which is somewhat to the southwest of the SWHS monitor, closer to Monroe Station. While these data do not answer the question of whether Monroe Station contributes to concentrations at either location, these data do indicate that most of the SO<sub>2</sub> monitored at the SWHS monitor is being contributed from more local sources. Based on the analysis described in the TSD, EPA continues to believe that Monroe Station is not a nearby source that contributes to the violation at the SWHS monitor.

#### **3.2.5.4 Terre Haute, IN Area**

**Comment:** Indiana agrees with the inclusion of Fayette Township in the Terre Haute nonattainment area, but disagrees with the inclusion of Otter Creek Township because the population for that township is low and there are no sources of SO<sub>2</sub>.

**EPA's Response:** See Terre Haute, IN portion of the Indiana TSD.

#### **3.2.5.5 Richmond, IN Area**

**Comment:** Indiana submitted a recommendation that Wayne County, IN should be excluded from this round of designations because the monitor in Wayne County has certified, quality assured data showing that it is not violation the 2010 SO<sub>2</sub> Standard based on the 2010-2012 design period with a design value of 66 ppb.

**EPA's Response:** Because there are no monitored violations for the Richmond, Indiana area, no action is currently being taken on this area.

#### **3.2.5.6 Oneida County, WI Area**

**Comment:** EPA proposed one SO<sub>2</sub> nonattainment area for the State of Wisconsin. This is the area that was initially recommended in a letter to EPA Region 5 on May 26, 2011. On January 23, 2013, however, the source responsible for the elevated SO<sub>2</sub> concentrations submitted an application with the WDNR to install a natural gas boiler at their facility. Given this development, EPA should delay finalization of the one nonattainment designation in Wisconsin at this time. This is the major source of SO<sub>2</sub> in the area and the WDNR believes the area will achieve attainment when the source reduces its emissions. Consequently, attainment status should be granted once the cause of the nonattainment is removed or reduced.

Regardless of the U.S. EPA's action regarding finalization of the nonattainment designation, the remainder of Oneida County should be designated attainment. U.S. EPA should also designate other areas in Wisconsin attainment now, based on emissions and monitoring data.

***EPA's Response:*** EPA is currently acting on designations for areas currently monitoring violations of the SO<sub>2</sub> NAAQS. See the Wisconsin TSD for further discussion of this comment.

### **3.2.5.7 Marshall, WV Area (previously called Wheeling, WV-OH)**

Comments regarding this area are addressed in section 3.2.9.3

## **3.2.6. EPA Region 6**

### **3.2.6.1 St. Bernard Parish, LA**

***Comment:*** One commenter described the communities around the plants and refineries in St. Bernard Parish as under-served and over-burdened with rising sulfur levels, and generally expresses support for a nonattainment designation for St. Bernard Parish.

***EPA's Response:*** EPA acknowledges the commenter's support for a nonattainment designation for St. Bernard Parish.

***Comment:*** One commenter believes that the rising sulfur levels in St. Bernard Parish are a result of the pollution allowed by Title V air permits issued to stationary sources, emissions from plants and refineries that have been "grandfathered," and from unpermitted sulfur emissions. The commenter also states that expansions, modifications, and variance exemptions that have been approved by the Louisiana Department of Environmental Quality (LDEQ) for the Rain CII facility and other plants and refineries without appropriate review or without providing public notice have also resulted in increased pollution and unacceptable and unhealthy air quality.

***EPA's Response:*** EPA agrees with the commenter that stationary sources in the area appear to be responsible for much of the elevated SO<sub>2</sub> levels in St. Bernard Parish (see our TSD found in Docket ID No. EPA-HQ-OAR-2012-2033). The determination of whether it will be necessary to establish federally enforceable emission limits more stringent than those currently in place for stationary sources in the area to achieve attainment of the standard in St. Bernard Parish will be made through the nonattainment State Implementation Plan (SIP) process. The requirement to develop a nonattainment SIP is triggered by the nonattainment designation. The nonattainment SIP, itself, is outside the scope of the designations process. LDEQ will have to develop this SIP in accordance with CAA sections 172 and 191-192, adopting the necessary controls so that the area will attain the standard as expeditiously as practicable, but no later than the statutory attainment date. Under the CAA, the State must provide the public the opportunity to comment on the plan revision and the State must respond to those comments before adopting the SIP and submitting it to EPA for approval.

While we acknowledge the commenter's concern with the potential increase in SO<sub>2</sub> emissions resulting from previously approved or proposed source modifications or expansions and previously approved variances, we note that this is also outside the scope

of the designations process. These permitted and potential permitted increases, however, are required to be evaluated by LDEQ and taken into account during the development of the nonattainment SIP. Specific permitting and variance concerns, however, should be raised directly to LDEQ on a permit by permit basis, during the public comment period for the proposed permit revision, as LDEQ's air permitting program has been approved by EPA into the Louisiana SIP. Concerns related to public participation with regard to proposed source modifications and variance requests should also be raised to LDEQ.

**Comment:** The commenter states that the SIP should address the potential increase in SO<sub>2</sub> emissions resulting from permit applications currently under administrative review, and from compliance with EPA's expected Tier 3 mandates and other future regulations. The commenter believes that modifications of sources in the area and new regulatory mandates expected in the near future should not cost the community what little good air is remaining.

**EPA's Response:** We acknowledge the commenter's concerns related to the impact of future construction and/or modifications of sources in the area. The federal Clean Air Act requires that the new nonattainment SIP include a nonattainment New Source Review permitting program that would apply in the St. Bernard Parish nonattainment area. All new major stationary sources and major modifications in the nonattainment area must offset their new emissions so there is no net increase in SO<sub>2</sub> emissions in St. Bernard Parish. However, evaluation of potential SO<sub>2</sub> emissions increases resulting from applications under the New Source Review permitting program is outside the scope of the designations process.

Furthermore, with respect to the commenter's concern with the potential impact of source compliance with future federal air pollution regulations, we note that this is also outside the scope of the designations process and the nonattainment SIP development process. If compliance with any existing or future federal regulations will cause increases of SO<sub>2</sub> in the future, the LDEQ must take these increases into consideration while developing the nonattainment SIP and adopt control measures as needed to attain the standard as expeditiously as practicable, but no later than the statutory attainment date. However, we note that before promulgating any new federal air pollution regulations, EPA develops technical, economic, and environmental analyses that are available for review and comment during a public notice and comment period of at least 30 days after a new federal regulation is proposed. This may provide an appropriate venue for the commenter to raise concerns regarding potential increases in SO<sub>2</sub> emissions resulting from compliance with those regulations.

**Comment:** One commenter believes that the communities in St. Bernard Parish should have an opportunity to attend public information sessions and provide input before any SIP decisions are made. The commenter believes that appropriate controls are necessary to maintain the balance between residential neighborhoods and heavy industrial land use. The commenter states that the SIP should: protect public health and safety in St. Bernard Parish by requiring all major sources to install technology that results in the lowest achievable emission rates; require emission reductions beyond what may already be

scheduled; require the operation of air monitors along the perimeter/fence-line of sources since monitored violations at fixed ambient air monitors can be dependent on wind direction; require the operation of current ambient air monitors beyond SIP and EPA consent decree timelines (in particular for the Valero Energy air monitor); and require operation of additional ambient air monitors (in particular along the west bank of the Mississippi River) where residents have reported experiencing adverse health effects when the wind blows opposite the Chalmette Vista monitor and carries emissions from sources in St. Bernard Parish to Orleans Parish. The commenter believes that other solutions at all major sources, docks, and terminals in St. Bernard Parish include more stringent pollution controls, meaningful enforcement and surveillance, a residents-based community benefits agreement with each industry, and the dedication of any penalties toward local projects that support public health, local jobs, and community resettlement.

***EPA's Response:*** While issues related to the development of nonattainment SIPs for the 1-hour SO<sub>2</sub> NAAQS are outside the scope of the designations process, we note that CAA section 172(c) describes the general requirements for nonattainment SIPs. Nonattainment SIPs generally contain requirements such as (but not limited to): reasonably available control measures (including reductions in emissions from existing sources in the area) and provide for attainment of the NAAQS, enforceable emission limitations, and means or techniques as necessary or appropriate to provide for attainment of the 1-hour SO<sub>2</sub> standard. All new major sources and major modifications will be required to install technology that results in the lowest achievable emission rate. As the state air pollution control agency in Louisiana, LDEQ will have the responsibility to develop this SIP and submit it to EPA for approval. Federal regulations require states to provide reasonable notice and hold a public hearing on a draft SIP and respond to all public comments received before the SIP is submitted to EPA for approval. In addition, EPA provides public notice and an opportunity for public comment before finalizing its action to approve or disapprove a SIP. As such, we expect that the communities in St. Bernard Parish will have sufficient opportunity to provide input before EPA takes final action on the nonattainment SIP.

With respect to the commenter's monitoring concerns, the EPA requirements for the 1-hour SO<sub>2</sub> National Ambient Air Quality Standard revised on June 2, 2010, can be found at <http://www.epa.gov/airquality/sulfurdioxide/actions.html>. The final 1-hour SO<sub>2</sub> NAAQS rule requires a minimum of three SO<sub>2</sub> monitors for any Core-based Statistical Area (CBSA) with a calculated Population Weighted Emissions Index (PWEI) value equal to or greater than 1,000,000. A PWEI uses population and emissions inventory data at the CBSA level to assign required monitoring for a given CBSA, with population and emissions being obvious relevant factors in prioritizing numbers of required monitors. The final 1-hour SO<sub>2</sub> NAAQS rule also requires a minimum of two SO<sub>2</sub> monitors for any CBSA with a calculated PWEI value equal to or greater than 100,000, but less than 1,000,000. For any CBSA with a calculated PWEI value equal to or greater than 5,000, but less than 100,000, a minimum of one SO<sub>2</sub> monitor is required within that CBSA. In the final SO<sub>2</sub> NAAQS rule, EPA stated that the monitors required within these breakpoints would provide a reasonable minimum number of monitors in a CBSA that considers the combination of population and emissions that exist in a CBSA. Based on

the SO<sub>2</sub> monitoring network requirements in the final 1-hour SO<sub>2</sub> NAAQS rule, no additional SO<sub>2</sub> monitors are required on the west bank of the Mississippi River in Orleans Parish nor along the fence-line of stationary sources in St. Bernard Parish.

We note at this time, separate from the designations process, the EPA is evaluating the overall implementation strategy for the SO<sub>2</sub> standard, including evaluation of regulatory air monitoring requirements. Opportunities for additional public input will be available as necessary changes to existing rules, if any, and guidance are developed. Additional information on EPA's SO<sub>2</sub> implementation plans can be found at: <http://www.epa.gov/oaqps001/sulfurdioxide/implement.html> and <http://www.epa.gov/oaqps001/sulfurdioxide/pdfs/20130207SO2StrategyPaper.pdf>. Furthermore, whenever a state's annual monitoring network plan proposes monitoring network modifications, a public comment opportunity is furnished by either the State or EPA.

As further explained in a separate response, the Valero air monitor the commenter references was required by a 2010 consent decree between the facility and EPA to settle CAA violations. This monitor is operated and maintained by the facility, and is not a regulatory air monitor. The requirements for operation of the Valero air monitor were established by the consent decree and because it is a non-regulatory monitor, the requirements for its operation are outside the scope of the designations processes.

**Comment:** The commenter expresses concern that the "SIP timeline of 2018" may be too late for St. Bernard Parish's residents who report having a negative quality of life and health effects as a result of flaring events.

**EPA's Response:** While issues related to the deadline for attainment are outside the scope of the designations process, the commenter appears to be referring to the statutory deadline for areas designated nonattainment for the 1-hour SO<sub>2</sub> NAAQS to attain the standard. CAA section 191(a) requires states to develop and submit nonattainment SIPs to EPA within 18 months of the effective date of an area's nonattainment designation, demonstrating that the affected area will attain the standard by the applicable statutory attainment date. Under CAA section 192(a), areas designated nonattainment with respect to the primary SO<sub>2</sub> NAAQS must attain the standard as expeditiously as practicable, but no later than 5 years from the date the area was designated nonattainment. We anticipate working with LDEQ in the development of the SIP to identify the most expeditious practicable attainment date and ensure this requirement is met.

**Comment:** The commenter expresses support for a nonattainment designation for St. Bernard Parish, noting that all three major sources in St. Bernard Parish contribute SO<sub>2</sub> emissions and both the "Chalmette Vista" and the "Valero" air monitors have multiple violations of the 1-hour SO<sub>2</sub> standard.

**EPA's Response:** EPA acknowledges the commenter's support for a nonattainment designation for St. Bernard Parish.

**Comment:** The commenter expresses support for a nonattainment designation for St. Bernard Parish, noting that the health of people in the community is being negatively affected by high concentrations of SO<sub>2</sub>. The commenter believes that industry has caused a disaster that was avoidable, but it will now take a long time for the community to recover and the “label” of nonattainment will have a deterring effect on the community’s resettlement programs. The commenter states that both Valero Energy and ExxonMobil operate several other refineries in other areas using better control technology resulting in lower SO<sub>2</sub> emissions, and suggests that these companies should be required to make the same investment at their facilities in St. Bernard Parish.

**EPA’s Response:** EPA acknowledges the commenter’s support for a nonattainment designation for St. Bernard Parish. However, development of the nonattainment SIP and decisions on what control technology sources in the area must install are outside the scope of the designations process. LDEQ is responsible for developing a SIP that includes controls for sources in the area and contains an attainment demonstration showing St. Bernard Parish will attain the standard as expeditiously as practicable, but no later than the statutory attainment date.

**Comment:** The commenter states that control technology that would reduce emissions resulting from plant startup/shutdown due to planned maintenance, unplanned malfunctions, and hurricane and other weather related events is available and should be required for sources in the area. The commenter states that in August 2012 in preparation for Hurricane Isaac, the ExxonMobil Chalmette plant and the Valero Energy Meraux plant had planned shutdowns and reported emitting over 46 tons of SO<sub>2</sub> and 1,102 pounds of SO<sub>2</sub> (respectively) from startup and shutdown procedures. The commenter adds that while hurricane related events may result in a violation of the 1-hour SO<sub>2</sub> NAAQS, this goes undocumented because monitoring sites are taken down during hurricanes for safety reasons. The commenter believes that industry in St. Bernard Parish should plan ahead and be properly equipped for weather related events.

**EPA’s Response:** We acknowledge the commenter’s concern with emissions resulting from startup, shutdown, and malfunction; however, we note that the determination of what control technologies should be required for sources in the area is outside the scope of the designations process. As stated in a previous response, LDEQ in the SIP development process will determine which sources must install what pollution controls to meet applicable emission limits to attain the 1-hour SO<sub>2</sub> standard. We encourage the commenter to participate during the development of the SIP. Although out of the scope of the designations process, we also note that on February 22, 2013, EPA published a notice in the Federal Register proposing to take action on a petition for rulemaking filed by the Sierra Club on June 30, 2011 (see 78 FR 12460). The petition included interrelated requests concerning the treatment of excess emissions in 39 states’ existing SIP rules by stationary sources during periods of startup, shutdown, or malfunction. In that proposed rulemaking, EPA specifically proposed to determine that Louisiana’s existing SIP includes a number of provisions regarding the treatment of excess emissions during periods of startup, shutdown, and malfunction that are inconsistent with the CAA. The EPA also simultaneously proposed a SIP call which upon finalization would give

Louisiana 18 months to correct and submit its revised SIP to EPA. The EPA's February 22, 2013 proposed rule intends to ensure states have SIP provisions in place that require industrial facilities across the country to follow air pollution rules during times when the facility is starting up or shutting down, or when a malfunction occurs. More information on EPA's proposed SIP call on startup, shutdown, and malfunction can be found at: <http://www.epa.gov/airquality/urbanair/sipstatus/emissions.html>.

With regard to the commenter's concern with potential violations of the 1-hour SO<sub>2</sub> NAAQS that may go undetected during hurricane events when ambient air monitors are taken down, we note that taking down monitors is routine practice during hurricane events in order to prevent damage to expensive monitoring equipment. The monitors are only taken down temporarily and usually resume operations promptly following the hurricane event. We also note that during and following emergencies, EPA may deploy mobile air monitoring equipment to monitor and sample for substances that may be present in the environment. The decision whether to deploy these mobile air monitors is usually based on the emergency and determined on a case by case basis. Therefore, we expect that any major accidental releases of chemicals or emissions into the atmosphere that could potentially pose a serious threat to human health would not go undetected.

**Comment:** The commenter states that emergency flaring resulting from unplanned malfunctions and shutdowns can cause chronic and acute health risks and may violate the 1-hour SO<sub>2</sub> NAAQS. The commenter argues that the ExxonMobil Chalmette refinery and the Valero Energy Meraux refinery are major contributors to nonattainment in St. Bernard Parish, stating that both the Chalmette Vista and Valero monitoring sites have many violations of the 1-hour SO<sub>2</sub> NAAQS. The commenter states that the ExxonMobil Chalmette refinery in 2010 and 2011, and the Valero Energy Meraux refinery in 2011 and 2012, emitted more SO<sub>2</sub> emissions than what each is permitted to emit. The commenter also provides information on unplanned flaring events at both the ExxonMobil Chalmette refinery and the Valero Energy Meraux refinery, noting that there were monitored violations at the Chalmette Vista and the Valero monitoring sites during these events when the wind was blowing away from the sources and toward the monitors.

**EPA's Response:** We agree with the commenter that stationary sources in the area appear to be responsible for elevated SO<sub>2</sub> levels in St. Bernard Parish, as measured in particular at the Chalmette Vista monitor (see our Technical Support Document found in Docket ID No. EPA-HQ-OAR-2012-2033). In making our decision to designate St. Bernard Parish nonattainment, we considered the three most recent years of certified data from regulatory ambient air monitors, as well as certain other factors. However, in determining that the St. Bernard Parish area was in violation of the NAAQS for purposes of designations, we did not take into consideration any data from the Valero air monitor referenced by the commenter, as it is not a regulatory monitor. Although we believe the data from the Valero monitor is informational in many respects, the data does not meet the requirements in 40 CFR Part 58 Appendices A, C, and E. Because ambient air quality data used by the EPA for establishing violations of the NAAQS must meet the requirements in 40 CFR Part 58 Appendices A, C, and E, EPA cannot consider data from

the Valero monitor for purposes of establishing NAAQS violations for designation purposes.

**Comment:** The commenter states that the Chalmette Vista monitor, located north of ExxonMobil and Rain CII, demonstrates violations of the 1-hour SO<sub>2</sub> NAAQS and shows that both sources are major contributors to nonattainment. The commenter notes that LDEQ's 2011 designation recommendations to EPA were based on 2008-2010 air monitor data, and states that there have been no significant improvements in monitored SO<sub>2</sub> concentrations in 2011 and 2012 at the Chalmette Vista air monitor while there has been an increase in SO<sub>2</sub> concentrations at both the Meraux and Valero air monitors, with violations at the Valero air monitor.

**EPA's Response:** As can be seen in the analysis presented in our TSD, which can be found in Docket ID No. EPA-HQ-OAR-2012-2033, we agree with the commenter that Rain CII and ExxonMobil appear to contribute to the violations recorded at the Chalmette Vista monitor. EPA established the 1-hour SO<sub>2</sub> standard at a level of 75 parts per billion (ppb), based on a 3-year average of the annual 99<sup>th</sup> percentile of 1-hour daily maximum concentrations. In making its designation decisions, EPA must consider the three most recent years of certified data from regulatory ambient air monitors, as well as certain other factors. Louisiana based its 2011 designation recommendations on 2008-2010 air monitoring data because at the time those were the three most recent years for which certified air monitoring data was available. Since certified 2011 air monitoring data became available by the time EPA proposed its designations in February 2013, EPA proposed and is now finalizing its SO<sub>2</sub> designation decision for St. Bernard Parish based on a violation of the NAAQS established by 2009-2011 data from regulatory air monitors. Although in recent years there has been some improvement in the monitored SO<sub>2</sub> concentrations at the Chalmette Vista monitor, we agree with the commenter that the monitor's 2009-2011 design value of 287 parts per billion (ppb) is significantly above the standard of 75 ppb.

Although EPA is designating St. Bernard Parish nonattainment, we note that in making that decision EPA did not take into consideration for purposes of establishing NAAQS violations any data from the Valero air monitor referenced by the commenter, as it is not a regulatory monitor. The Valero monitor is a community air monitoring station that was installed by the facility as part of a 2010 consent decree with EPA to settle CAA violations, and is operated and maintained by the facility. Although we believe the data from the Valero monitor is informational in many respects, the data does not meet the requirements in 40 CFR Part 58 Appendices A, C, and E. We discuss the Meraux air monitor in the next response.

**Comment:** The commenter states that air monitoring data for the years 2008-2012 at the Meraux air monitor demonstrate that recent plant modifications at the Valero Energy Meraux refinery have resulted in increased SO<sub>2</sub> concentrations. The commenter notes that the 2012 highest annual 1-hour SO<sub>2</sub> concentration of 59 ppb at the Meraux air monitor, as well as four consecutive 5-minute readings above 75 ppb, took place around the same time as the Valero Energy Meraux refinery reported flaring. The commenter notes that

there is a public health concern at the elementary school where the Meraux air monitor is located, as school children were exposed to these high SO<sub>2</sub> levels and studies have linked short-term exposure to adverse respiratory effects, especially when children are exercising or playing. The commenter contends that air monitoring data from the Meraux and Valero air monitors demonstrate that the Valero Energy Meraux refinery is the major contributor to violations of the 1-hour SO<sub>2</sub> NAAQS at both the Valero and Meraux air monitors as well as at the elementary school, that there is a need to implement long-term solutions, and that the Valero air monitor could potentially in the future demonstrate nonattainment if there are no further emissions reductions at the Valero Energy Meraux refinery.

***EPA's Response:*** As stated in a previous response, EPA is basing its decision to designate St. Bernard Parish nonattainment on the three most recent years of certified data from regulatory air monitors in the area. As discussed in our Technical Support Document, we considered 2009-2011 data from the three regulatory monitors in the area: the Chalmette Vista, Chalmette High School, and Meraux monitors. Although we acknowledge the commenter's concerns regarding exceedances of the 1-hour SO<sub>2</sub> standard at the Meraux air monitor, out of the three monitors only the Chalmette Vista monitor is violating the 1-hour SO<sub>2</sub> standard based on 2009-2011 air monitoring data. The TSD explains in further detail what sources appear to be contributing to violations at the Chalmette Vista monitor. As stated in a previous response, as part of the SIP development process, LDEQ must determine which sources in the area must install what controls to attain the standard as expeditiously as practicable, but no later than the statutory attainment date. EPA anticipates working with LDEQ in this process.

With respect to the Valero air monitor, although we believe the data from the Valero monitor is informational in many respects, the data does not meet the requirements in 40 CFR Part 58 Appendices A, C, and E. Because ambient air quality data used by the EPA for establishing violations of the NAAQS must meet the requirements in 40 CFR Part 58 Appendices A, C, and E, EPA cannot consider data from the Valero monitor for purposes of establishing NAAQS violations for designation purposes.

***Comment:*** The commenter states that high SO<sub>2</sub> levels were also monitored at LDEQ's former air monitoring sites, and provides information on the highest annual 1-hour SO<sub>2</sub> concentrations and 99<sup>th</sup> percentile data from specific years for these air monitors: the Mehle site (located in Arabi); the Algiers "Entergy" site (located in Orleans); the Chalmette High site (located in St. Bernard's only high school). The commenter states that high monitored SO<sub>2</sub> concentrations at the former Chalmette High site demonstrates that student health should be protected, while high monitored SO<sub>2</sub> concentrations at the former Algiers Entergy air monitor in Orleans Parish demonstrates the need for deploying monitors on the west bank of the Mississippi River.

***EPA's Response:*** As explained in a previous response, current Federal air monitoring requirements do not require that an SO<sub>2</sub> monitor be located on the west bank of the Mississippi River in Orleans Parish.

However, we note that the EPA is separately evaluating implementation of the SO<sub>2</sub> standard, including evaluation of air monitoring requirements. Opportunities for additional public input will be available as necessary changes to existing rules, if any, and guidance are developed. Additional information on EPA's SO<sub>2</sub> implementation plans can be found at the following websites: Sulfur Dioxide Implementation - Programs and Requirements for Reducing Sulfur Dioxide

<http://www.epa.gov/oaqps001/sulfurdioxide/implement.html> and at Next Steps for Area Designations and Implementation of the Sulfur Dioxide National Ambient Air Quality Standard

<http://www.epa.gov/oaqps001/sulfurdioxide/pdfs/20130207SO2StrategyPaper.pdf>.

Furthermore, EPA conducts a comprehensive annual review to ensure that the state has a monitoring network in place that meets the technical requirements of 40 CFR Part 58 and its appendices. The public will be able find the public notice for LDEQ's Ambient Air Monitoring Network Plan by June 1, 2013, at

<http://www.deq.louisiana.gov/apps/pubNotice/default.asp>. Part 58 provides at a minimum a 30-day public inspection opportunity for every annual monitoring network plan presented by the States and local agencies that develop the plans; moreover, whenever a plan proposes network modifications, a public comment opportunity is furnished by either the State or EPA. We invite future public participation from this commenter and others when these opportunities are provided.

***Comment:*** The commenter argues that Louisiana law prohibits LDEQ from issuing a permit that maintains a nuisance or a danger to public health and safety, and notes that air quality in St. Bernard is very poor sometimes. The commenter states that as the public trustee under the State Constitution, LDEQ has a duty to require state-of-the-art technology and additional monitoring to ensure that the air permit limits of the three major sources in the area are maintained.

***EPA's Response:*** We acknowledge the commenter's concerns related to high monitored SO<sub>2</sub> concentrations in St. Bernard Parish, however, we note that LDEQ's duties under state statute are outside the scope of the designations process. A nonattainment designation triggers a federal requirement for LDEQ to develop a SIP that must adopt the necessary controls for the area to attain the standard as expeditiously as practicable, but no later than the statutory attainment date. We anticipate the SIP will result in improved air quality and will safeguard public health in St. Bernard Parish.

***Comment:*** Two commenters state they are residents of St. Bernard Parish and express support for a nonattainment designation for the Parish. One commenter states that residences in the area are constantly exposed to SO<sub>2</sub> and H<sub>2</sub>S emissions, with the resulting odors often forcing residents to shelter indoors and making outside ventilation not an option. The commenter states that pollutant emissions have caused damage both to people's health and to residences in the area. The commenter believes it is time for industry to address this issue.

***EPA's Response:*** We acknowledge the commenters' support for a nonattainment designation for St. Bernard Parish. We also acknowledge the commenter's concern with

the impact high SO<sub>2</sub> concentrations have on the communities in the area. LDEQ is responsible for developing a SIP that includes controls for sources in the area and contains an attainment demonstration showing St. Bernard Parish will attain the standard by the statutory attainment date.

**Comment:** The commenter believes that when EPA mandates gasoline sulfur reduction, this may result in lower tailpipe emissions but it also results in high levels of sulfur emissions at centralized locations surrounding the refineries. The commenter argues that this places the burden on the communities surrounding the refineries. The commenter believes that before mandating gasoline sulfur reduction, EPA should require the latest pollution control technology that will provide the intended goal of sulfur emissions reductions.

**EPA's Response:** As stated in a previous response, issues related to the potential impact of source compliance with new federal air pollution regulations are outside the scope of the designations process. If compliance with the EPA gasoline sulfur reduction requirements results in higher levels of sulfur emissions at refineries in St. Bernard Parish, in the development of the nonattainment SIP the LDEQ must take these increases into consideration and ensure that the control measures in the SIP will put the Parish into attainment by the deadline. However, we note that before promulgating a new federal air pollution regulation, EPA develops technical, economic, and environmental analyses that are available for review and comment during the public notice and comment period of at least 30 days after a new federal regulation is proposed.

**Comment:** While the commenter agrees with the designation of St. Bernard Parish as nonattainment, the commenter disagrees with how EPA referred to that area as the "New Orleans Area." The commenter states that labeling the "New Orleans Area" as nonattainment without the inclusion of a specific political boundary or definition will cause confusion. The commenter asks EPA to either remove its label of St. Bernard Parish as the "New Orleans Area," or change the label to "New Orleans Metropolitan Statistical Area."

**EPA's Response:** EPA apologizes for any confusion, our reference to the "New Orleans Area" may have made with respect to designations, and we are clarifying that we are initially designating only St. Bernard Parish nonattainment. References to the "New Orleans Area" have been corrected accordingly.

### **3.2.6.2 General Comments on Texas**

**Comment:** The commenter reinforces the 2012 recommendation for an attainment designation for ten counties and an unclassifiable designation for all remaining counties in Texas. The commenter believes that EPA should designate areas in Texas in accordance with Governor Rick Perry's 2012 recommendations. In support of this position, the commenter provides 2009-2011 design values and preliminary 2010-2012 design values for these ten counties, stating that the data demonstrate the design values continue to trend downward. The commenter also expresses appreciation for EPA's

willingness to work with states regarding implementation of the 1-hour SO<sub>2</sub> NAAQS and for the flexibility being provided on the implementation schedule for this NAAQS.

***EPA's Response:*** EPA acknowledges the support the commenter expresses regarding our approach to developing an implementation strategy for the 1-hour SO<sub>2</sub> NAAQS. In proposing designations and making final designation decisions, EPA has taken into consideration the designation recommendations provided by the commenter. However, EPA is proceeding at this time with initially designating as nonattainment most areas in locations where existing monitoring data from 2009-2011 indicate violations of the 1-hour SO<sub>2</sub> standard. We are not yet prepared to issue final designations for other types of areas, and will designate them in future final designations actions. This includes areas in Texas and areas in other states where monitored air quality data from 2009-2011 does not show violations of the 1-hour SO<sub>2</sub> standard. The EPA expects to be able to proceed with designation actions in these areas once additional data are gathered. Additional information on EPA's still developing SO<sub>2</sub> implementation strategy can be found at the following websites: Sulfur Dioxide Implementation - Programs and Requirements for Reducing Sulfur Dioxide <http://www.epa.gov/oaqps001/sulfurdioxide/implement.html> and at Next Steps for Area Designations and Implementation of the Sulfur Dioxide National Ambient Air Quality Standard <http://www.epa.gov/oaqps001/sulfurdioxide/pdfs/20130207SO2StrategyPaper.pdf>.

### **3.2.7. EPA Region 7**

#### **3.2.7.1. Muscatine County Area**

***Comment:*** One commenter supports EPA's proposed designation of Muscatine County, Iowa as nonattainment for sulfur dioxide (SO<sub>2</sub>), as described in the EPA Responses to State and Tribal 2010 SO<sub>2</sub> Designation Recommendations.

The commenter supports the designation of the entire county as nonattainment, rather than some subset of the county. In addition, the Council supports a consideration of a portion of Louisa County as nonattainment because an area of Louisa County is likely contributing to the violation of air quality standards in Muscatine County. The MidAmerican Louisa coal plant is located just south of Muscatine County in Louisa County. According to Iowa DNR, this coal plant emitted 7,075 tons of sulfur dioxide in 2010. It is likely necessary for EPA to designate as nonattainment the portion of Louisa County that includes this large source of sulfur dioxide emissions in the final nonattainment designation in order to ensure the NAAQS for Muscatine County is met in future years.

The Commenter urges EPA to designate a portion of Louisa County as in nonattainment for contributing to air quality violations in Muscatine County. There is a small section of Louisa County that is adjacent to and just south of Muscatine County that includes a large source of sulfur dioxide emissions. The source is MidAmerican Energy's Louisa Generating Station, located less than 2 miles from the Muscatine County boundary. In fact, a portion of the contiguous property associated with this coal plant, which stores dry coal ash, appears to be in Muscatine County. The Louisa Generating Station is a major

emitter of SO<sub>2</sub> emissions and contributes to Muscatine County's violation of the 2010 SO<sub>2</sub> NAAQS. Accordingly, the commenter recommends that the recommended nonattainment area boundary of Muscatine County be expanded as to include the portion of Louisa County with the Louisa Generating Station. The commenter indicates that while the Louisa Plant is primarily located outside Muscatine County, it still contributes to the poor air quality in Muscatine County. EPA's guidance on designations indicates that states should provide information showing that "violations are not occurring in nearby portions that are excluded from the recommended nonattainment area" and that "excluded portions do not contain emission sources that contribute to the monitored or modeled violation." Since the Louisa Generating Station is a major source of SO<sub>2</sub> emissions that contributes to Muscatine County's nonattainment, it would be inappropriate not to include it in a nonattainment designation.

***EPA's Response:*** The EPA's proposal to include all of Muscatine County as the presumptive nonattainment area boundary was based on the EPA's determination that the Musser Park monitor was reporting nonattainment with the NAAQS. Following the EPA's proposal, IDNR performed a technical analysis supporting a revised nonattainment boundary and provided EPA this analysis as a comment to our proposal. EPA's proposed default nonattainment boundary did not include the Louisa Generating Station (LGS) in neighboring Louisa County; however IDNR's analysis included an evaluation of the LGS facility for its contribution at the violating monitor. The LGS facility is located south of the violating monitor, which is the general direction of the sources implicated by IDNR's wind rose analysis as causing or contributing to the violations detected at the Musser Park monitor. However, since EPA's February 2013 letter (our "120-day letter") to Iowa indicating that EPA planned to modify Iowa's 2011 recommendation did not address this source, we are not yet prepared to conclude in this final designation action that the emissions from the LGS facility contribute to the monitored violation or to other possible violations, and we will make final designations decisions for areas outside Muscatine County in a subsequent round of final designations. CAA section 107(d)(1)(B)(ii) requires that before issuing a final designation that includes a modification to a state's recommendation, EPA must give the state at least 120 days notice of such a modification. As we have not yet provided such notice to Iowa regarding the LGS facility, we cannot yet include the LGS source in this final designation action. In addition, the EPA is not yet reaching a conclusion concerning areas and sources that are not included in the initial Muscatine area nonattainment boundary, and will address final designations for these areas and their sources in the future.

***Comment:*** If EPA chooses not to include the area of Louisa County that encompasses the Louisa Generating Station in its nonattainment designation, EPA must at the minimum require the state to include controls for the Louisa Generating Station in the State Implementation Plan (SIP). The Clean Air Act requires that nonattainment plan provisions must "provide for the implementation of all reasonably available control measures as expeditiously as practicable (including such reductions in emissions from *existing sources in the area* as may be obtained through the adoption, at a minimum, of reasonably available control technology) and shall provide for attainment of the national primary ambient air quality standards." The Louisa Generating Station should qualify as one of

the “existing sources in the area” even though it is not directly in the designated nonattainment area. The previously cited section of the Clean Air Act refers to the general area that could affect air quality in the designated nonattainment area. If SIPs were only required to place controls solely on sources within the designated nonattainment area, the Clean Air Act would not specifically refer to “nonattainment area” later in the same section.

***EPA’s Response:*** The CAA allows states the discretion to implement specific control strategies that demonstrate attainment of the NAAQS in each nonattainment area. The EPA will review Iowa’s future State Implementation Plan (SIP), submitted in response to the EPA’s 2010 SO<sub>2</sub> Primary NAAQS initial boundary designation, and determine whether the SIP adequately demonstrates that the nonattainment area will attain the NAAQS in an expeditious manner, in accordance with Sections 110, 172 and 192 of the Clean Air Act and relevant guidance. The issue of the adequacy of the SIP for the initial Muscatine nonattainment area is not yet ripe, as the SIP has not yet been developed by Iowa or submitted to EPA for review for approval. The EPA also notes that areas not currently included in the initial Muscatine nonattainment area will be addressed in a subsequent round of designations, and Iowa will be responsible for the development of control strategies for those areas as necessary in future State Implementation Plans.

***Comment:*** Commenters are “supportive of effective regulatory action, based on sound public health and scientific research aimed to clean our air... While the SO<sub>2</sub> readings are highest in neighborhoods surrounding the worst offenders of our air quality laws, air is not stagnant and moves to cover all citizens who reside in our county... Clean Air Muscatine (CLAM) therefore supports such designation and, and sees no viable alternative to a county-wide designation.”

***EPA’s Response:*** The EPA acknowledges the concerns of this commenter, but finds that the technical analysis performed by the IDNR that included an analysis of monitoring data, meteorological data, wind roses, proximity of sources to the violating monitor and the sources’ magnitude of emissions supports a smaller initial nonattainment area boundary. This boundary includes the Muscatine County sources that EPA has sufficient information to conclude are impacting the Musser Park monitor. EPA is not yet reaching a conclusion concerning areas and sources not included in the initial nonattainment boundary, and will address these areas in a future final designations action.

***Comment:*** Nonattainment boundary needs to include the area of Muscatine County that Mid American Corporation has proposed for the construction of a new nuclear power plant or natural gas power plant.

***EPA’s Response:*** The EPA bases its nonattainment boundary designations upon sources contributing to a violation of the NAAQS and not upon future sources of emissions. Additionally, following receipt of this comment, the Mid American Corporation voluntarily withdrew its permit request for a new Muscatine County, Iowa nuclear or natural gas power plant. Therefore, the comment is moot, and it is not necessary for EPA to further respond to it.

### **3.2.8. EPA Region 8**

#### **3.2.8.1. General Comments**

**Comment:** One commenter says EPA should move forward with the revocation of the older SO<sub>2</sub> standards (annual and 24-hour). However, since the revocation has been tied to the designation process, which has been pushed out to 2020, it appears that states are asked to implement three separate SO<sub>2</sub> NAAQS for the next eight years. This causes a burden for collecting and processing monitoring data, determining compliance, and conducting modeling and permit analysis for three separate standards.

**EPA's Response:** The 2010 SO<sub>2</sub> NAAQS rulemaking established how EPA would move forward with the revocation of the prior annual and 24-hour standards after designating areas for the new 2010 1-hour SO<sub>2</sub> NAAQS. EPA's rules provide that for most areas the 24-hour and annual standards will remain in effect in each area for one year following the effective date of its initial area designation under section 107(d)(1) for the new 1-hour SO<sub>2</sub> NAAQS. (See 75 FR 35520; June 22, 2010.) However, for areas that were designated nonattainment under the prior NAAQS at the time of the 2010 NAAQS' promulgation, or that were still subject to a SIP Call under the prior NAAQS, revocation of the prior NAAQS will not occur until such areas develop and submit, under CAA section 191, and EPA approves, a SIP showing attainment of the 1-hour NAAQS. 40 CFR 50.4(e). Several Region 8 areas are subject to this regulatory exception, which was not challenged in the recent litigation concerning the 2010 SO<sub>2</sub> NAAQS, and which no one timely petitioned the agency to reconsider. See 75 FR at 35581, n.41. Moreover, it is outside the scope of this limited designations action to consider any amendment to the NAAQS provisions that established how revocation of the prior NAAQS would occur. We certainly did not, in our proposed designations, indicate any intent to reopen section 50.4(e) or to reconsider the final decisions reached on this issue in the 2010 NAAQS rulemaking. However, regardless of when and whether revocation of the prior NAAQS occurs, we note that in the preamble to the final 2010 NAAQS we explained that any existing SIP provisions under CAA sections 110, 191, and 192 associated with the annual and 24-hour SO<sub>2</sub> NAAQS will remain in effect, including all currently implemented planning and emissions control obligations, including both those in the State's SIP and those that have been promulgated by EPA in FIPs. This will ensure that both the new nonattainment NSR requirements and the general conformity requirements for a revised standard are in place so that there will be no gap in the public health protections provided by these two programs. It will also ensure that all nonattainment areas under the annual and/or 24-hour NAAQS and all areas for which SIP calls have been issued will continue to be protected by currently required control measures. See 75 FR at 35580-82.

As mentioned above, EPA's rules provide that the annual and 24-hour NAAQS remain in place for any areas that were designated nonattainment under those NAAQS when the 2010 NAAQS was promulgated, or any area for which a State has not fulfilled the requirements of a SIP call, until the affected area submits, and EPA approves, a SIP with an attainment, implementation, maintenance and enforcement SIP which fully addresses

the attainment and maintenance requirements of the new SO<sub>2</sub> NAAQS. This, we explained in the final 2010 SO<sub>2</sub> NAAQS preamble, in combination with the CAA mechanisms provided in section 110(l), 193, and 172(e) will help to ensure that continued progress is made toward timely attainment of the SO<sub>2</sub> NAAQS. No one timely challenged EPA's conclusions regarding this approach, and we are not revisiting them in this initial designations action.

**Comment:** One commenter discusses that in the past, EPA has indicated it would seek to use dispersion modeling to make attainment designations for the 1-hour SO<sub>2</sub> NAAQS. (see EPA's proposed "Guidance for 1-Hour SO<sub>2</sub> NAAQS SIP Submissions.") The commenter continues that dispersion modeling of emissions can greatly over predict the pollutant concentrations. Several commenters state that dispersion modeling is a tool that would be best used for planning decisions and not for area designations.

**EPA's Response:** In this final designations action regarding areas with monitored violations of the 2010 SO<sub>2</sub> NAAQS, we are not reaching any conclusions about how to use dispersion modeling as a tool for either designations or planning decisions. However, we do not agree that it is appropriate to now conclude that modeling is not a tool to be used for area designations. In addition to using any valid data generated by existing monitors, refined dispersion modeling may appropriately inform specific designation and implementation decisions regarding sources that may have the potential to cause or contribute to a NAAQS violation. Our historical approach to SO<sub>2</sub> designations and implementation through permits and emission limitations has involved a combination of both monitoring and modeling. If commenters have objections regarding any future use of dispersion modeling in a future proposed designations action, they should raise those concerns at that time. Such issues are outside the scope of this final designations action.

### **3.2.8.2. Yellowstone County Area (Billings, MT)**

**Comment:** Multiple commenters support a designation of 'unclassifiable' for the Crow Reservation.

**EPA's Response:** The Crow Tribe of Montana's Reservation is located adjacent to the Yellowstone County (partial) nonattainment area (Billings, MT area) that we are initially designating as nonattainment. As discussed in the Billings, MT TSD, this area of Indian country does not contain SO<sub>2</sub> emissions sources that we are currently prepared, based on monitoring data, to conclude are contributing to the design value at the violating monitor in Billings. Therefore, EPA is not including the Crow Tribe of Montana's areas of Indian country in the initial Billings, MT nonattainment area. The EPA is not designating any areas as unclassifiable in the current round of designations. EPA will designate these areas in a future round of final designations.

**Comment:** Multiple commenters discuss that a 'nonattainment' designation would have serious current and future economic impacts on businesses and the community in Yellowstone County.

***EPA's Response:*** The EPA must designate the violating area as nonattainment based on CAA section 107(d). The EPA is revising its proposed nonattainment boundary from the entire county of Yellowstone to a smaller area in Billings. This information can be found in Region 8's technical support document (TSD) that is included in the docket for this action. With respect to impacts on the local economy and businesses, such issues are not relevant for designations actions, but the State has flexibility under the CAA to consider such impacts as it develops the control strategy to bring the area into attainment of the air quality standard.

***Comment:*** One commenter discusses the uncertainty and accuracy/precision issue of monitoring ambient data for the new 1-hour SO<sub>2</sub> standard. They conclude that it is not definitive, confident, or even certain if the standard was exceeded at the Coburn Monitor. Another comment is that the EPA has not been able to articulate its own quality assurance guidance for adequate accuracy, precision, and reliability for the new 1-hour standard. Additionally, the EPA has not specified the criteria necessary for an attainment demonstration and is planning to defer this matter. Since this has not been defined it would appear unnecessary and premature to rush a nonattainment designation for Yellowstone County. Thus the law provides a clear and available alternative to nonattainment, unclassifiable. Another commenter discusses the failure to observe the basic scientific ideals of reproducibility and repeatability when using carefully collected "one of a kind" data can have significant unintended consequences. A parallel analyzer operating at the same location could readily provide a running plausibility check on the measurements and it would be under identical conditions, as to acknowledge causes of error. Replication is not infeasible temporally or spatially.

***EPA's Response:*** The EPA has quality assurance regulations that can be found in 40 CFR part 58 Appendices A – G. Additional information and references can also be found in the document titled "Quality Assurance Handbook for Pollution Measurement Systems, Volume II, Ambient Air Quality Monitoring Program." Montana DEQ has an approved Quality Management Program and EPA routinely conducts Technical Systems Audits of Montana's monitoring program. The State has provided all the necessary information to show that the data that has been reported, including the data it decided to invalidate, follows the guidelines specified above.

***Comment:*** One commenter discusses an additional concern regarding Coburn Road data for a nonattainment designation regarding the lack of a reliable method to detect and address cases of transient monitor malfunction or the influence of other extraneous variables. The commenter continues that invalid data arising from short-term malfunction (high concentration outliers) can go undetected and appear 'validated' in the record. The checks in place are specifically designed with the 500 ppb standard in mind; values near 75 ppb are not automatically considered extreme values. The previously satisfactory range of 1,000 ppb was too high in relation to the 75 ppb standard, since it would be in the lowest 10% of that range. The lower and upper extremes of the range are most susceptible to precision errors, and analyzers generally perform most reliably in the middle of the range. The commenter discusses that if an analyzer cannot provide an appropriate range for the regulatory concentrations then another one should be added.

MDEQ had several cases of transient problems detected before 2011. The commenter discusses an occurrence of a smoke event by the monitor found in Laurel and which subsequently showed a spike in SO<sub>2</sub>. The monitor did not report or flag this data because the monitor was not “looking” for this or any other common events but interpreted vegetative smoke as significant SO<sub>2</sub> relative to the standard. Except for this chance report, the data would likely have been recorded and validated as an “unquestioned” or “unexplained” high reading. The commenter discusses that this issue is not discussed or considered in EPA’s “February 2002 Development of Emissions Inventory Methods for Wildland Fire”.

The commenter provides another ‘unexplained’ transient reading at the Coburn Road monitor. This ‘unexplained’ reading occurred after an auto-calibration run. The monitor showed an unremarkable reading before the calibration. An hour after the calibration, the monitor showed the highest value for the entire 2012 year, but then the following hour read close to the value taken one hour before the calibration. The commenter concludes that the reading taken 1 hour immediately following the calibration was an outlier, which could have been caused by an undetected transient event, but was retained and validated. The commenter discusses that including this highest reading results in a 99<sup>th</sup> percentile value for 2012 of 70 ppb. Without the high reading, the 99<sup>th</sup> percentile value would drop to 55 ppb. If 55 ppb were used instead of 70 ppb, the 2010-2012 design value would be below 75 ppb. The commenter concludes that the currently accepted systems are not equipped to discern these possible false data points. Another commenter concludes that data collected prior to August 23, 2010, when monitors were operated and configured to evaluate a higher standard, should not be used to determine compliance with the new 1-hour standard. Calculation of a defensible design value based on 2010-2012 is impossible and determination should be done with 2011-2013 data.

***EPA’s Response:*** EPA disagrees with the commenter. Montana DEQ has conducted audits at the Coburn Road monitor at levels low enough for the data to be reliable for a 75 ppb NAAQS compliance determination. The monitor located in Laurel is an industrial monitor in the area and not under the management of Montana DEQ.

The data point that the commenter described in 2012 as an outlier is outside the designations years of 2009-2011. However, this data point was reviewed by both the State and EPA. It was determined that this exceedance was coincidentally after an hourly calibration check and that the exceedance was not caused by the calibration check.

Montana DEQ did lower its audit levels over the three year period, but all audits had levels encompassing the 75 ppb level. Because of this, EPA finds that the 2009-2011 data is robust enough to be reliable for a 75 ppb standard. See Table 1 below for the State’s historical audit levels for 2009-2011. Additionally, the comment pertaining to the “February 2002 Development of Emissions Inventory Methods for Wildland Fire” is outside the scope of this designation action.

Table 1

## Montana DEQ's Historical Audit Information

Date	Audit levels (ppb)			
2/25/2009	7.5	82	146	820
5/19/2009	36	147	358	819
8/12/2009	48	153	357	685
11/18/2009	50	186	424	418
3/23/2010	7	73	259	688
6/22/2010	8	74	270	710
9/21/2010	39	181	351	483
12/1/2010	58	228	338	449
3/24/2011	15.5	36.8	90.6	149.7
5/25/2011	29	72.4	126.7	250.5
11/17/2011	41.5	70.1	103.7	206.7

**Comment:** One commenter discusses that the CAA does not contemplate classifying areas nonattainment on a countywide or statewide basis, only for areas which are known to be presently “not meeting the standard,” not areas demonstrating compliance. The EPA’s ‘default’ county boundary approach is only in the 2011 guidance memo that was never subject to external review, where many entities would have expressed significant concerns. The commenter continues that Yellowstone County is very large and comparable in size to two eastern states, which contain multiple counties. The EPA would not designate one of these small states nonattainment if only one monitor showed a violation when others showed attainment. Additionally, the EPA should show equal consideration to the rest of Yellowstone County as they show to the Crow Reservation, where there are no contributing SO<sub>2</sub> sources and no ambient monitoring data. The boundary should be grounded in reality, thus smaller than the entire county, and based on available information, such as prevailing winds, similar local terrain, etc.

**EPA’s Response:** EPA disagrees that the CAA does not provide for EPA to propose a countywide nonattainment boundary, but the commenter’s objection has been rendered moot by the final designation covering a smaller area of Yellowstone County. As a proposal, the EPA was requesting additional information from the State/local/tribal air agencies, stakeholders, and the public on what a nonattainment area boundary should be in Yellowstone County. On April 3, 2013, the State of Montana provided additional information, which included a five-factor analysis, on the entire county proposal in response to EPA’s preliminary decision. Based on an analysis of the data provided by the State and commenters, in conjunction with the five-factor analysis, EPA determined that a partial county initial designation was appropriate instead of the entire county. EPA made the final designations for the 2010 1-hour SO<sub>2</sub> NAAQS using an evaluation of the recommended five-factors described in designations guidance that was issued by EPA through a March 24, 2011, memorandum from Stephen D. Page, Director, U.S. EPA, Office of Air Quality Planning and Standards, to Air Division Directors, U.S. EPA Regions I-X (Designations Guidance), as well as other relevant information in

determining an appropriate initial nonattainment area boundary for Yellowstone County. Please refer to Region 8's TSD.

**Comment:** One commenter discusses that the March 2011 Designations Guidance memo only gave states and tribes two months to complete a complex analysis. The designation strategy did not give state or local regulators, or affected industry, the chance to address the issues proactively. Even given this short time period, MDEQ prepared a compelling TSD. However, EPA did not adequately consider MDEQ's analysis or statutory context of a nonattainment area when proposing the entire Yellowstone County (excluding the Crow Reservation) nonattainment. The commenter concludes that this is a direct contradiction of the intent of the March 2011 memo and intended statutory approach to designations where EPA and a state arrive at dissimilar conclusions. Additionally, the commenter discusses that the memo omits mention of area-specific analyses conducted by other entities that would be impacted by a nonattainment designation, although statute allows input from others to a certain extent.

**EPA's Response:** The March 2011 Designations Guidance memo identifies that CAA section 107(d) provides EPA the authority to make modifications that it deems necessary to the recommended designations of areas submitted by states. The designations process is primarily between EPA and the state, which is discussed in the CAA section 107(d). CAA section 107(d)(2)(B) further discusses publication of designations where "Promulgation or announcement of a designation under paragraph (1), (4) or (5) shall not be subject to the provisions of sections 553 through 557 of Title 5 (related to notice and comment), except nothing herein shall be construed as precluding such public notice and comment whenever possible." Therefore, EPA can provide a public comment period for interested parties but is not required to do so. The EPA encourages impacted stakeholders to work with their state officials to coordinate an appropriate recommendation or response to any EPA proposed boundary modifications during the designations process.

**Comment:** Commenters discuss current and historical data, which are showing compliance with the new 1-hour standard and cannot be part of a nonattainment area. Five of the six monitors in the Billings/Laurel area show compliance and they are located within close proximity to major SO<sub>2</sub> sources. The Coburn Road monitor was in compliance in 2007-2009, but only indicated a violation in 2010. Evaluation of other monitoring sites that were in operation since 2000-2006, but are no longer in service, were all disconnected due to low SO<sub>2</sub> concentrations. All these sites had 99<sup>th</sup> percentile values and 3-year averages below the standard. The commenter points out that the emissions were about 75% higher during 2000-2006. The commenter further discusses monitoring conducted in the early to mid-1990s. The sites that were operating in the '90s had large emissions, but, when normalized for current emission levels, the 99<sup>th</sup> percentile values for these sites were below the new 1-hour standard. These old monitoring areas, west and southwest of PPL, should be an attainment area.

**EPA's Response:** The EPA agrees that the initial nonattainment area should be revised to be smaller than a countywide boundary. However, historical data can only be used for

informational purposes and non-regulatory monitors cannot be used for purposes of establishing a NAAQS violation for designations. The June 22, 2010 final NAAQS rule (75 FR 35520) discusses that the standard should use a “concentration-based form averaged over three years in order to give due weight to years when 1-hour SO<sub>2</sub> concentrations are well above the level of the standard, than to years when 1-hour SO<sub>2</sub> concentrations are just above the level of the standard.” Thus the three-year average provides more stability for fluctuations when certain years are high compared to a no-exceedance based form. The data years that EPA is using for this first initial round of SO<sub>2</sub> designations are 2009-2011.

**Comment:** One commenter discusses that the State of Montana and industry have taken a proactive approach to SO<sub>2</sub> issues in Yellowstone County and now it appears they are being punished with immediate, retroactive nonattainment designation for diligently monitoring SO<sub>2</sub> concentrations in the area. Montana was not specifically required to operate any SO<sub>2</sub> monitors in Yellowstone County during the 2009-2010 period and the data was never collected to demonstrate compliance with the new standard. However, the EPA is proposing to extend the statutory designation years into the future for other areas that did not monitor, allowing those areas to address potential problems in the meantime and avoid a nonattainment designation.

**EPA's Response:** The CAA requires EPA to complete area designations within two years after promulgation of a new or revised NAAQS, with a possible one year extension. Further, the form of the 2010 1-hour NAAQS is a three year average. Therefore, designation decisions based on the most recent three years of SO<sub>2</sub> monitoring data necessitate using data collected prior to the standard being finalized in June 2010. Based on valid SO<sub>2</sub> monitoring data from 2009-2011 a nonattainment area designation is warranted for part of Billings, Montana pertaining to the Coburn Road monitor. The Coburn Road monitor is appropriate to be used for this designations process because it is an approved regulatory monitor by both the State and EPA. The State is under an approved Quality Management Program, where EPA routinely conducts a Technical System Audit for Montana's monitoring program, and the State has provided all necessary information to show that the data and the monitor follow all guidelines set out by the EPA. The EPA expects to be able to proceed with designation actions in these areas without violating monitors once additional data are gathered. Additional information on EPA's still developing SO<sub>2</sub> implementation strategy can be found at the following websites: Sulfur Dioxide Implementation - Programs and Requirements for Reducing Sulfur Dioxide <http://www.epa.gov/oaqps001/sulfurdioxide/implement.html> and at Next Steps for Area Designations and Implementation of the Sulfur Dioxide National Ambient Air Quality Standard <http://www.epa.gov/oaqps001/sulfurdioxide/pdfs/20130207SO2StrategyPaper.pdf>.

**Comment:** One commenter discusses that since the standard did not become effective until August 23, 2010, all of 2009 and the majority of 2010 data are non-representative as these were collected before the new 1-hour standard went into effect. Thus it does not meet EPA's own regulations to use monitoring data for designations only if it meets strict technical and quality standards. Because the standard was not in place until after August

23, 2010, three of the four quarters (and thus 2010) are incomplete by definition in 40 CFR Part 50, Appendix T. The first three quarters were designed and operated for the regulatory purpose of measuring an older, substantially higher NAAQS of 500 ppb and thus use of the data is inappropriate for designations with the new 75 ppb standard. There is insufficient data to consider 2010 a valid year for determining the design value. Also, by denying data collected in 2013, the EPA is effectively and unnecessarily giving more weight to this non-representative data. The EPA even acknowledged that the monitoring network in the country overall was inadequate to address the new standard since the network had been shrinking for many years. The commenter concludes that in the majority of the 2009-2011 period, the standard did not exist and that this clearly defeats ordinary due process protections. Additionally, the commenter discusses this 'look-back' practice as termed "ex post facto" application of law and the lack of effective notice is a selective and arbitrary denial of effective due process. The commenter quotes "It is a commonplace of administrative law that '[a]n agency may not promulgate retroactive rules absent express congressional authority.'" (Nat'l Petrochemical & Refiners Ass'n v. EPA, 643 F.3d 958 (DC Cir. 2011)(quoting Nat'l Min. Ass'n v. Dep't of Labor, 292 F.3d 849, 859 (DC Cir. 2002))). The language of the NAAQS statute does not provide for retroactive application. Instead, the statute provides additional time if needed to make determinations and allows an unclassifiable designation when insufficient data are available. Thus EPA's nonattainment designation determines compliance with a new rule based on past behavior that was not subject to the rule for which compliance is being measured. The commenter concludes that EPA cannot apply the SO<sub>2</sub> rule retroactively to emissions that complied with the previous standard and must instead use data gathered when the new rule is in effect to determine compliance.

***EPA's Response:*** EPA disagrees with this commenter. There were no specific changes made in the Quality Assurance requirements for SO<sub>2</sub> monitoring in 40 CFR Part 58 Appendix A for the new 1-hour SO<sub>2</sub> NAAQS. Thus data collected prior to June 2010 when the new 1-hour SO<sub>2</sub> NAAQS was finalized meet the same SO<sub>2</sub> Quality Assurance requirements as SO<sub>2</sub> data collected after the 1-hour NAAQS was finalized. Montana DEQ conducted audits at the Coburn Road monitor at levels low enough for the data to be reliable for a 75 ppb NAAQS determination. See Table 1 above for the State's historical audit levels for 2009-2011.

The 75 ppb design level falls within the range of audit values Montana DEQ used, and therefore, EPA finds the 2009-2011 data robust enough to be reliable for a 75 ppb standard.

EPA also disagrees with the commenter's suggestion that using valid data that predates the new NAAQS for purposes of subsequent designations under the NAAQS somehow renders the NAAQS retroactive in its effect. Designations by their very nature have only prospective effect under a new NAAQS, and those are limited to triggering a state's duty to develop a prospective attainment plan that may (or may not) include new future-applicable emissions limitations. And those limits will not be established or impose binding obligations on air pollution sources before separate state and federal action is taken to adopt them. In no reasonable sense can this statutory structure, in

implementation, be viewed as constituting any retroactively applicable requirement that injures any one in any way. Moreover, adopting the commenter's view on this issue would render it impossible for either states or EPA to ever meet their statutory obligations under CAA section 107, as those duties impose deadlines on state governors and on EPA that fall before any post-NAAQS 3-year period of monitoring could run and generate certified and submitted data. Such a reading cannot be reasonable.

**Comment:** One commenter discusses that the designations for the Uinta Basin in Utah are proposed as unclassifiable for the 2008 ozone NAAQS even though monitors were showing a violation. EPA found the data from the non-regulatory monitors in the Uinta Basin were inadequate to make a nonattainment designation, although they were following the strict requirements set out in 40 CFR Part 58. The same is true for the Coburn Road monitor since it did not meet the quality assurance requirements to measure the lower emissions of the new standard. Additionally, to achieve "regulatory" status, monitors should be subject to adequate government oversight, follow an approved quality assurance project plan (QAPP), and provide satisfactory, quality-assured data. If the monitoring system does not strictly comply with EPA's regulatory requirements, then the data should not be used to determine NAAQS violations. The required checks under a QAPP would not have detected outliers from the 75 ppb standard as extreme values. The Coburn Road monitor was not designed or operated for the regulatory purpose of measuring compliance with the 75 ppb standard. The three-year average 99<sup>th</sup> percentile value for 2009-2011 is 79 ppb, only 4 ppb above the 75 ppb standard. The potential bias range for the Coburn Road monitor was -10 ppb to +7 ppb, where 4 ppb is within this range. One commenter concludes that since the data is within this bias and error range, it is not known whether the area is exceeding the standard. Thus this data is insufficient to designate the area nonattainment. Another commenter further discusses that corrective action is needed when quality assurance errors are found and the monitor must be specifically designed to collect the correct data for the specific NAAQS if the data is to be used for nonattainment designations. The commenter concludes that since the data from 2008-2010 do not meet EPA's high quality standards and were gathered before the effective date of the new NAAQS, EPA must designate Yellowstone County as unclassifiable.

**EPA's Response:** The specific circumstances leading to the EPA's conclusions that data from the Uinta Basin monitors were non-regulatory were unique to those monitors, and included the lack of approval of a monitoring QAPP by the EPA and a lack of complete quality assured data showing an ozone NAAQS violation. The Uinta Basin ozone monitors referred to in this comment did not have an approved Quality Assurance oversight program at the time of designations for the 2008 ozone standard. In addition, ozone monitors in the Uinta Basin did not have three years of data available at the time of designations. The monitor at Coburn Road is operated under a Quality Management Plan by the State of Montana, and has generated three calendar years of data. Montana's historical audit levels are discussed in a separate response and summarized in Table 1 above.

**Comment:** One commenter discusses that SO<sub>2</sub> monitors in the Billings/Laurel area, including the Coburn Road monitor, have shown compliance with the previous 500 ppb standard since 2001.

**EPA's Response:** The comment is outside the scope of this designation action. We are not reaching conclusions with respect to whether the area is meeting the 500 ppb standard.

**Comment:** One commenter discusses that Coburn Road monitor was only marginally in violation, is in an atypical location, and it will virtually be in compliance from 2011 forward.

**EPA's Response:** The EPA disagrees that there was a 'marginal' violation of the 1-hour SO<sub>2</sub> standard. Per the CAA section 107(d)(1)(A)(i) a nonattainment area is any area that does not meet the national primary or secondary ambient air quality standard for the pollutant or that contributes to a nearby area that does not meet the standard. The design value for designations for the period 2009-2011 is 79 ppb, which exceeds the 75 ppb 1-hour SO<sub>2</sub> standard. EPA also disagrees that the Coburn Road monitor is located at an atypical location. The monitor was sited to represent the maximum concentration of SO<sub>2</sub> for the area, which would better protect public health, and approved by EPA into the State's monitoring network. The 79 ppb design value for the Coburn Road exceeds the 75 ppb NAAQS for 2009-2011, and the design value for 2010-2012 of 78 ppb also exceeds the NAAQS. Therefore the area associated with this monitor is appropriately designated nonattainment.

**Comment:** Multiple commenters request that EPA defer classification of Yellowstone County, as EPA intends to do for other areas lacking representative, or any, monitoring data. Since these other areas are being given the opportunity to demonstrate or achieve compliance in the future, the State of Montana and Yellowstone County should be afforded the same opportunity.

**EPA's Response:** The EPA disagrees that parts of Yellowstone County should not be designated during this initial designations process. For this initial designation rulemaking, EPA is designating areas as nonattainment that have monitored violations for the 2009-2011 design value years. Since the Coburn Road monitor has a design value greater than the new 1-hour SO<sub>2</sub> standard, in accordance with CAA section 107(d)(1)(A)(i), this area should be designated as nonattainment. We are not prepared to reach designations conclusions about other areas, which will be addressed in future final designations actions.

**Comment:** One commenter discusses that a 'nonattainment' designation ignores the balance that should be considered and that such a decision needs to be data-driven and defensible. Some commenters discuss that EPA's proposed designation of nonattainment is premature, inappropriate, unnecessary, and should be reconsidered. Another commenter discusses that the statute does not suggest that nonattainment was easily determined, while attainment could only be defined in the future. This is two sides of the

same coin. The commenter goes on to discuss that an attainment area would be those areas that affirmatively meet the standard and for all other areas, the statute expressly contemplates designation of unclassifiable as satisfying all requirements of the initial designation, with final attainment or nonattainment designation to be identified at a later date, based on additional monitoring data and analysis. The CAA does not require EPA to designate nonattainment, nor is there anything that requires EPA to modify state recommendations.

***EPA's Response:*** The EPA disagrees with the commenters. The CAA section 107(d)(1) provides definitions for the terms attainment, nonattainment, and unclassifiable. The definition of nonattainment is any area that does not meet the national primary or secondary ambient air quality standard for the pollutant or that contributes to a nearby area that does not meet the standard. The definition of unclassifiable is any area that cannot be classified on the basis of available information as meeting the NAAQS. EPA's review of the available information concludes that there is no lack of information that would justify any action, in accordance with CAA section 107, for the area around the violating Coburn Road monitor other than a nonattainment designation. Our TSD supports this designation. Additionally, CAA section 107(d)(1)(B)(ii) provides the Administrator the option to make modifications to the recommendations provided by states as deemed necessary.

***Comment:*** One commenter discusses that EPA did not address 2012 emissions or monitoring data in their analysis. This year is more representative of current air quality and with the lower emissions, reduced compared to 2010 emissions, the area would be attaining.

***EPA's Response:*** The EPA disagrees that it did not review 2012 data during the one-year extension. However, the 2010-2012 design value was still above the standard at 78 ppb. Since 2012 data did not provide any new information, the EPA based its designation of nonattainment on 2009-2011 design value that is in violation of the NAAQS, consistent with the other areas that EPA is designating as nonattainment at this time.

***Comment:*** Multiple commenters state that 2011-2013 data would provide the EPA a clearer picture of emissions in Yellowstone County. This would show Yellowstone County as currently attaining. Another commenter states that 2011-2013 would be the first period in which the 2010 standard was actually in effect for the entire period. Years 2011 and 2012, evaluated individually, do not show an exceedance at the 99<sup>th</sup> percentile level, nor would it suggest a violation.

***EPA's Response:*** The EPA agrees that 2011, as an individual year, does not have a 99<sup>th</sup> percentile 1-hour value above 75 ppb. However, compliance determinations for the 1-hour SO<sub>2</sub> NAAQS are based on a 3-year average of 99<sup>th</sup> percentile values, not on a single year. The 2011 design value (based on the three years 2009-2011) for the Coburn Road monitor in Yellowstone County violates that standard at 79 ppb. For this initial designation rulemaking, EPA is designating areas as nonattainment that have a monitored

violation for the design value for the years 2009-2011. Note also that the 2012 design value (based on the three years 2010-2012) also violates the standard at 78 ppb. Since the Coburn Road monitor has a design value greater than the new 1-hour SO<sub>2</sub> standard, in accordance with CAA section 107(d)(1)(A)(i), this area is appropriately designated as nonattainment. The State's Quality Assurance measures, as discussed elsewhere in these responses, also support EPA's finding that the 2009-2011 data are complete, quality assured, reliable for a 75 ppb standard, and show a regulatory violation of the new 1-hour SO<sub>2</sub> NAAQS.

**Comment:** Multiple commenters question the reliability and representativeness of 2010 data, and the data set of 2009-2011 used by EPA, at the Coburn Road monitor in Yellowstone County for current and future conditions. Another commenter discusses that 2009, 2011, and 2012, represent similar and consistent operating conditions and reflect future operations, which are enforceable, permanent, and quantifiable emission reductions. Other comments discuss that since 2010 is the one year that is the basis of EPA's recommendation of nonattainment, it should be reliable and representative. Another commenter discusses that the majority of the exceedances for 2009-2011 were in 2010. From 2008-2012, 70% of highest monitored concentrations were in 2010 and from this same period that the average for 2010 was 13 ppb higher than the other four-year averages. This same commenter discusses that the standard deviation of 99<sup>th</sup> percentile over the past six years ranges from 63.2 ppb – 88.1 ppb, which represents reasonable values and any data outside of this range should be considered outliers. From this 2007, 2008, and 2010 are questionable. Therefore, the 2010 monitoring data from Coburn Road monitor should not be used for the designations process.

**EPA's Response:** The EPA disagrees. While the numbers of exceedances in 2010 are higher than in other years, neither EPA nor the State has found any reason to believe that the values read by the Coburn Road monitor are not valid readings. Quality assurance checks done by the State show that the monitor was reading correctly and that the data are valid. The potential for inter-annual variability in data is a key reason that NAAQS compliance is determined by using a three-year average form of the standard (using consecutive years), so it is inappropriate to further account for variability by selecting specific years to use or to discard.

**Comment:** Multiple commenters discuss that SO<sub>2</sub> values for 2010 were influenced by the requirement under an EPA, State of Montana and ExxonMobil consent decree for catalyst testing at ExxonMobil and that the data is not representative of current or future concentrations. A commenter also discusses that 2008 is not representative due to early catalyst testing at ExxonMobil under the consent decree. Another commenter discusses that the consent decree driven emissions increase in 2010 corresponds directly to a majority of the documented NAAQS exceedances, 10 of 16, for the 2009-2011 time-period.

**EPA's Response:** The EPA disagrees that 2008 and 2010 are not representative. Found within Region 8's TSD, catalyst testing performed at ExxonMobil in 2008 and 2010 did not correlate with the days of exceedances. The exceedances were primarily from the

west-southwest wind direction, which would make ExxonMobil upwind of the monitor during the exceedances. EPA's response to this comment can be found in the "Air Quality," "Emissions and Emissions Related Data," and "Meteorology" sections of Region 8's TSD.

**Comment:** Multiple commenters support recommendations for an "unclassifiable" designation for Yellowstone County until full, reliable data is collected. Another commenter asserts that the EPA improperly concluded in their TSD that the 2009-2011 dataset provides adequate evidence of emissions of current and future years and is not indicative of current and future nonattainment of the NAAQS. Thus available data does not support this conclusions and the county should be designated unclassifiable. The commenter further discusses that the unclassifiable designation was developed in part to avoid a needless rush to judgment on a nonattainment or attainment area. Therefore, EPA should agree with Montana's unclassifiable designation and then work with MDEQ to ensure that the standard continues to be met. This approach would avoid unwarranted costs for unnecessary emission reductions. Another commenter discusses that it would be reasonable to presume that the CAA does not expect a state to revise their SIP when federal requirements in a consent decree interfere with attainment (42 USC § 7410(a)(3)(C)).

**EPA's Response:** The EPA is not designating any areas of the country as unclassifiable with this initial designation rulemaking. Areas that do not have monitored violations will be designated in future final actions. However, EPA is designating, as "nonattainment," areas that have a monitored violation for the 2009-2011 design value years. In Region 8's TSD, EPA discusses that the consent decree between ExxonMobil, the State of Montana, and EPA was not the cause of exceedances in 2010. Since the Coburn Road monitor has a design value for 2009-2011 greater than the new 1-hour SO<sub>2</sub> standard, in accordance with CAA section 107(d)(1)(A)(i), this area is appropriately designated as nonattainment.

**Comment:** Multiple commenters discuss PPL-Montana's plan to mothball the Corette power plant in April 2015 because of upcoming regulations. It would take a significant amount of time to resume operations due to permitting, equipment installation, etc. The commenters discuss that in 2010-2012, there were no exceedances of the 1-hour standard when PPL was offline or even when winds were from other directions other than from the southwest. Therefore, the monitor data will decrease drastically and remain low indefinitely as a direct result of PPL's power plant being mothballed. The commenters further discuss that if PPL were to decide to resume operations, they would first need to demonstrate compliance with the new Mercury Air Toxics (MATS) rule, and thus installation of a baghouse would be necessary. The commenters discuss that the baghouse will incidentally reduce SO<sub>2</sub> emissions, on top of the capture achieved by the current Electrostatic Precipitator (ESP), by capturing particles and ash material, and perhaps 10% of SO<sub>2</sub> could be captured on this material. They conclude that 10% is very significant since PPL accounted for about 90% of emissions to the Coburn Road monitor site during 2010. Reductions of SO<sub>2</sub> necessary to achieve demonstrated compliance are not very large and a small tonnage reduction can be very significant.

***EPA's Response:*** The EPA agrees that if the Corette power plant were to be mothballed that the overall emissions in the area would be reduced. However, PPL does not plan to mothball or add controls until April 2015, or April 2016 if the extension is granted for compliance with the MATS rule. The State has flexibility under the CAA for a nonattainment area to consider impacts, such as these, as it develops the control strategy for the SIP to bring the area into attainment of the air quality standard.

***Comment:*** Some commenters discuss working to reduce SO<sub>2</sub> at Corette before the 2018 NAAQS compliance date in order to preclude a nonattainment designation. EPA should take into account this potential commitment on the part of PPL and MDEQ with respect to the designations decision. Other areas are being granted this deferral under the Next Steps policy statement by EPA. Another commenter discusses that, if provided more time, the State and PPL would use the time to establish an hourly emission limit for certain sources and evaluate where additional reductions need to be made.

***EPA's Response:*** The EPA agrees that PPL and MDEQ should be working to reduce SO<sub>2</sub> emissions from the Corette power plant, however, we do not agree with deferring designation for this area that has a monitored violation. Other areas for which we are not yet prepared to reach final designations decisions are areas for which additional monitoring data or other information are needed. Concerns about how those areas, which are outside the scope of this final action, are to be treated should be raised in response to our future proposed designations for those areas. The Coburn Road monitor is violating the 1-hour SO<sub>2</sub> standard for 2009-2011 based on valid data and is appropriately designated nonattainment with this rulemaking.

***Comment:*** One commenter discusses that the nonattainment area should extend only a few thousand feet northeast of Coburn Road monitor, stopping short of the elevation contour of lower Coburn monitor, Brickyard monitor, Lockwood Park monitor, Johnson Lane monitor, and Pine Hills monitor, where all these monitors and their representative areas show attainment. These areas show compliance and demonstrate that Lockwood facilities do not contribute to exceedances or violations at Coburn Road monitor. The commenter went further to discuss that when Phillips66 or CHS were online but not PPL Corette, there were no exceedances. The commenter also noted that there were still exceedances when Western Sugar was offline but only when PPL was online. Thus the nonattainment area should extend out from contributing source, PPL Corette, not significantly farther than Coburn Roads distance from PPL Corette, and exclude all areas below the elevation of Lower Coburn station. Another commenter discusses that if EPA would designate a portion of the county nonattainment then EPA should be sure to include all sources contributing to the nonattainment designation within the boundary. The commenter continues that it would be inappropriate to set a designation boundary that failed to capture areas that are potentially influenced by the other sources.

***EPA's Response:*** The EPA agrees that the initial nonattainment area should be revised from the entire county to a smaller boundary. The EPA reviewed the State's five-factor analysis and new nonattainment boundary recommendation, which only included the

violating monitor (Coburn Road monitor) and PPL Corette, and agrees with the State's analysis and revised boundary. The EPA's detailed response to this comment can be found in Region 8's TSD. We are not at this time prepared to reach final designations conclusions regarding any other areas or sources outside the boundary of the initial nonattainment area.

**Comment:** Two commenters submitted a five-factor analysis for a smaller nonattainment area boundary for Yellowstone County.

**EPA's Response:** The EPA agrees with the commenters on establishing a smaller initial nonattainment area boundary. Our detailed response can be found in Region 8's TSD.

**Comment:** Some commenters discuss current and future regulations and possible impacts on reducing SO<sub>2</sub> in the Billings/Laurel area. The commenters included: EPA's refinery initiative and associated consent decrees, existing FIP implementation, MATS/utility MACT implementation, regional haze/BART implementation, NSPS Subpart Ja, EPA's flare initiative, and boiler MACT implementation. One commenter discusses that all these regulations will have some SO<sub>2</sub> reductions at certain facilities in the Billings/Laurel area and that the county would demonstrate compliance solely through the actions already required by existing and enforceable programs. However, another commenter discusses that all but two will have little to no impact on reducing SO<sub>2</sub> emission, which are the EPA's refinery initiative/associated consent decree and EPA's FIP.

The following discusses comments on each of the regulations listed above and EPA's responses.

-EPA's refinery initiative and associated consent decree, and SO<sub>2</sub> FIP  
Implementation: One commenter discusses that between 2002 and 2005, Billings/Laurel refineries and representative parent companies each entered into a consent decree with EPA and the State of Montana. Phillips66 and CHS have largely completed their consent decrees and had emission reductions. ExxonMobil was implementing their consent decree, completing catalyst testing, and implementing findings during and after the 2008-2010 period that EPA describes as "representative of normal emissions." In 2010, ExxonMobil had more than a 1,600 tons per year increase over 2009 and 2011 years, which EPA noted as "normal." Years 2011 and 2012 show dramatic decreases in emissions at ExxonMobil. These additional emissions that resulted from the consent decree required catalyst testing contributed to the high values in 2010 and since the controls have been added, emissions are unlikely to return to 2010 levels. Thus 2010 is an anomaly. The commenter also discusses that even though the FIP has been delayed by recently completed unsuccessful litigation, it has not rendered the FIP moot and it will still apply to those facilities. The FIP primarily applies to flaring events at refineries (CHS, ExxonMobil, and Phillips66) and MSCC, where these facilities are required to develop and submit to EPA for approval flare monitoring plans. These plans were possibly held up by the recent litigation.

***EPA's Response:*** The EPA has revised the initial nonattainment area to include only the Corette power plant and the violating monitor (see Region 8's TSD). Thus the other sources and the areas that will show reductions from the EPA's refinery initiative and from the FIP's implementation are not addressed in this final action, and will be addressed in a future final designations action and are outside the scope of this initial nonattainment designation.

-Regional Haze FIP: One commenter discusses that for the Corette power plant the Regional Haze FIP revised the SO<sub>2</sub> emission standard, which represents a 19% reduction in the previously allowable standard. This would effectively eliminate previously allowable excursions of high emissions that would cause Corette to exceed the standard. Additionally, the FIP would have effectively shaved off about 30% from the allowable high-end emissions that Corette would emit. The commenter concludes that to ensure the standard is met, Corette would implement fuel blending to address high sulfur coal that is shipped to the plant. Another commenter discusses that other than the SO<sub>2</sub> limit, which is averaged over a rolling 30-day period, no additional emissions reductions would result in the Billings/Laurel area.

***EPA's Response:*** The EPA agrees that the Regional Haze FIP pertaining to Corette had set a lower allowable SO<sub>2</sub> limit. However, this lower limit is what the Corette power plant is allowed to emit and is based on Corette's actual emissions with an added margin of compliance. Corette's actual emissions would not necessarily be reduced by the lower allowable limit under the Regional Haze FIP.

-MATS/Utility MACT Implementation. One commenter discusses that the facilities affected by this rule would be Corette and YELP. Another commenter discusses that for the implementation of this rule, Corette would need substantial controls to lower air toxics and SO<sub>2</sub> emissions or mothball the plant in April 2015. The options included for this rule would be for the facilities to take a hydrochloric acid limit or a SO<sub>2</sub> limit and it is assumed that Corette would take the hydrochloric acid limit. Any controls installed for this rule associated with PM or metal limits will provide co-benefit of additional SO<sub>2</sub> control.

***EPA's Response:*** The EPA has revised the initial nonattainment area to include only the Corette power plant and the violating monitor (see Region 8's TSD). Thus the other sources and the areas that will show reductions from of the MATS/Utility MACT rule (except for PPL Corette) are outside the scope of this initial nonattainment designation and will be addressed in a future final designations action. EPA agrees that if the Corette power plant were to be mothballed, the overall emissions in the area would be reduced. However, PPL does not plan to mothball or add controls to Corette until April 2015, or April 2016 if an extension under the MATS rule is granted. The State has flexibility under the CAA for a nonattainment area to consider impacts, such as these, as it develops the control strategy for the SIP to bring the area into attainment of the air quality standard.

-Boiler MACT Implementation. One commenter discusses that Montana DEQ in 2011 made a case that the implementation of this rule would significantly reduce SO<sub>2</sub> at major sources. However, EPA dismissed this and stated that since the rule has been indefinitely delayed, anticipated reductions could not be factored into this initial designation and that the rule would not have a significant effect on the area. The reconsideration of EPA's Boiler MACT standard for major sources was finalized and published as 40 CFR 63, subpart DDDDD on January 31, 2013. The commenter further discusses that even though exact reductions is still unknown, the assumption cannot be that SO<sub>2</sub> reductions will be insignificant. Another commenter discusses that for subpart DDDDD, MSCC, PPL, ExxonMobil, CHS, and Phillips66 appear to meet the applicability requirements of the rule. The commenter continues that reduction in SO<sub>2</sub> is not quantifiable at this early stage, but improvements in efficiency and tune-up will likely lead to slightly lower emissions. Additionally, the reconsideration of EPA's Boiler MACT standard for area sources was finalized and published as 40 CFR 63, subpart JJJJJ on February 1, 2013. The commenter discusses subpart JJJJJ, where Western Sugar's coal-fired boilers would be subject to Hg and CO limits. However, it is still unclear what steps Western Sugar may take to meet the Hg emission limits. If scrubber upgrades are considered for Hg control at Western Sugar, a co-benefit of SO<sub>2</sub> emissions reductions will be realized.

***EPA's Response:*** The EPA agrees that exact SO<sub>2</sub> emission reductions for the Boiler MACT implementation rule cannot be known at this time. However, the EPA has revised the initial nonattainment area to include only the Corette power plant and the violating monitor (see Region 8's TSD). Thus the other sources and the areas that will show reductions from subpart JJJJJ and subpart DDDDD (except for PPL Corette) of the Boiler MACT rule are outside the scope of this initial nonattainment designation and will be addressed in a future final designations action. For PPL's Corette power plant, the State has flexibility under the CAA for a nonattainment area to consider impacts, such as these, as it develops the control strategy for the SIP to bring the area into attainment of the air quality standard.

***Comment:*** MEIC and Sierra Club support designation of all or a portion of Yellowstone County as a nonattainment area for the SO<sub>2</sub> NAAQS, but believe that EPA must also designate all or a portion of Rosebud County as a nonattainment area for the SO<sub>2</sub> NAAQS. The largest source in Rosebud County is Colstrip, and even with future reductions from the regional haze plan, violations of the 1-hour SO<sub>2</sub> standard still occur. The commenters agree with EPA that ExxonMobil testing in 2010 is unavailing and since ExxonMobil is downwind of the monitor they are unlikely the sole cause of the violations. Additionally, MDEQ's five-factor analysis proposal for only Corette in the nonattainment area (NAA) does not follow CAA requirements that all contributing sources to the violation be included in the NAA. Not one source is solely responsible for SO<sub>2</sub> violations and in addition, other sources in the area emit the same or even more SO<sub>2</sub> than Corette. From the modeling analysis, where conservative assumptions about the other sources emissions were assumed, Corette would need to reduce its SO<sub>2</sub> emissions by more than 88%. In support of these comments, MEIC and Sierra Club submit modeling of SO<sub>2</sub> NAAQS violations in Yellowstone and Rosebud Counties, where the

modeling predicted that exceedances would extend throughout the region and up to a distance of 50km from the sources (but excluding the Crow Reservation). This modeling is appropriate because Yellowstone County contains only one SO<sub>2</sub> monitor and Rosebud County contains none. EPA is required to consider all evidence before it—including submitted modeling—in making attainment and nonattainment designations.

***EPA's Response:*** The EPA agrees with the commenter that a portion of Yellowstone County should initially be designated nonattainment. However, EPA is not yet prepared to conclude whether Rosebud County should be designated in whole or in part nonattainment based on a modeling analysis. In this initial round of final nonattainment designations, the EPA is not addressing modeling either in the initial nonattainment areas or in other areas, which will be addressed in a future round of final designations. Thus Rosebud County and the remaining portion of Yellowstone County are outside the scope of this initial nonattainment designation, and will be addressed in a future final action, which could include determining whether initial nonattainment boundaries need to be extended, new nonattainment boundaries need to be designated, or if the areas should be designated attainment or unclassifiable. Region 8's TSD provides a more detailed analysis of revising Yellowstone County's nonattainment boundary under sections "Air Quality Data" and "Emissions and Emissions-Related Data" based on monitoring data.

### **3.2.9. Multi-Region Areas**

#### **3.2.9.1. Campbell-Clermont Counties, KY-OH Area**

***Comment:*** In a March 6, 2013, letter, the Commonwealth of Kentucky submitted a response to EPA's February 6, 2013, intended nonattainment designation and boundary determinations for areas in relation to the 2010 SO<sub>2</sub> NAAQS. Kentucky expressed strong opposition to any portion of Campbell County, Kentucky being designated nonattainment. Specifically, the Commonwealth stated "... Kentucky strongly opposes the proposed nonattainment designation of Campbell County due to overwhelming supporting data indicating that there is no environmental benefit to designating the Kentucky portion as nonattainment." Kentucky cited to EPA's TSD which explained that the source causing the violation at the Campbell County, Kentucky monitor is in Clermont County, Ohio. The Commonwealth provided some general technical points implicating the source in Clermont County as causing the violation at the monitor in Kentucky, and mentioned that the nonattainment designation for Campbell County would cause more stringent permitting requirements and would not result in any additional programs in Campbell County, Kentucky to reduce SO<sub>2</sub> emissions. Also, Kentucky noted that "... the total area in Kentucky designated nonattainment is ironically larger than the total area designated nonattainment in Ohio, the location of the source causing the violation."

***EPA's Response:*** The EPA has made the determination that Campbell County, Kentucky has a violating monitor for the 1-hour SO<sub>2</sub> NAAQS, and thus is designating a portion of this county as nonattainment. Additionally, and in association with the violating monitor in Campbell County, Kentucky, the EPA is also designating a portion

of Clermont County, Ohio as nonattainment for the 1-hour SO<sub>2</sub> NAAQS. Because of the nonattainment designation, the Commonwealth of Kentucky is obligated under the CAA to submit a State Implementation Plan for the Campbell County area. However, the EPA understands that for the Campbell County, Kentucky nonattainment area, the emissions source associated with the violation monitored in Campbell County is located in Ohio. Accordingly, we expect Ohio will address this source as part of their state implementation planning. The EPA will work with Ohio to ensure the required nonattainment area SIP addresses the air quality impact on the citizens of Kentucky. With regard to size of the boundary for the Kentucky portion of this area, the EPA has reevaluated its intended boundary determination, and has revised this boundary. More information on EPA's technical analysis for this area and revised boundary determination for Campbell County, Kentucky can be found in EPA's TSD for Kentucky.

### **3.2.9.2. Steubenville, OH-WV Area**

**Comment:** The WV Division of Air Quality (DAQ) has performed additional technical analysis and refined the related nonattainment area boundaries. Therefore, we are now recommending that EPA revise its initial Nonattainment Area Designations for West Virginia. Our recommendations are primarily based upon the five-factor analysis detailed in EPA's March 2011 guidance. In the Steubenville OH-WV area, all of the violating monitors in Brooke County WV and all significant sources of SO<sub>2</sub> emissions in Brooke County WV are located in the Cross Creek Tax District portion of Brooke County, WV. The West Virginia portion of the Steubenville, OH-WV non attainment area should be confined to the Cross Creek Tax District (within Brooke County).

**EPA's Response:** EPA concurs with this recommendation from DAQ. The additional information regarding monitor locations and emissions information (Tables 5 and 6 of the DAQ Five factor analysis document and related discussion in this document) was confirmed by EPA and supports a revised boundary for the WV portion of this nonattainment area specifically using a partial county boundary of Brooke County consisting of the Cross Creek Tax District. See the WV TSD for additional information.

### **3.2.9.3. Marshall, WV Area (previously called Wheeling, WV-OH)**

**Comment:** The WV Division of Air Quality (DAQ) has performed additional technical analysis and refined the related nonattainment area boundaries. Therefore, we are now recommending that EPA revise its initial Nonattainment Area Designations for the West Virginia portion of this area. Our recommendations are primarily based upon the five-factor analysis detailed in EPA's March 2011 guidance. The West Virginia portion of the Wheeling, WV-OH nonattainment area should be confined to the Clay, Franklin and Washington Tax Districts all within Marshall County.

**EPA's Response:** EPA concurs with this recommendation from DAQ. The additional information from DAQ indicates that the violating monitor in Marshall county is located in the Washington Tax District and all significant SO<sub>2</sub> emission sources are located in Franklin Tax District (Tables 7 and 8 of the DAQ five factor analysis and related

discussion in this document). Clay tax district is located directly between Franklin and Washington Tax Districts. This information supports a revised boundary for the WV portion of this nonattainment area specifically using a partial county boundary of Marshall County consisting of the Clay, Franklin, and Washington Tax Districts within Marshall County. See the WV TSD for additional information.

**Comment:** The DAQ analysis indicates that a nearby significant source, which likely impacts the above area, seems to have been overlooked. Therefore, we recommend that Ohio Township (Monroe County, OH) be included in the final Wheeling, WV-OH nonattainment designation since it contains The Ormet Primary Aluminum facility. This facility is located less than 5 kilometers from the PPG Industries facility which is located in the recommended nonattainment area.

**EPA's Response:** The Ormet SO<sub>2</sub> source in Ohio Township, Monroe County, Ohio, is located approximately 25 km from the Marshall County, WV, monitor. As discussed by DAQ and confirmed by EPA this source emitted 2,442 tpy of SO<sub>2</sub> in 2008 and 2,471 tpy in 2011 (2008 NEI and draft 2011 NEI). As discussed in the TSD that accompanied this proposal, PPG Industries emitted 7,693 tpy (2008 NEI). Also while the Ormet facility is in close proximity to the PPG Industries facility, PPG Industries emits almost three times the amount of SO<sub>2</sub> emissions as Ormet and is also located within a jurisdictional border that is useful for bounding the nonattainment area. EPA did not propose to include the Ormet facility in the original nonattainment area and is not prepared based on the emissions information and other factors to include this source in the initial nonattainment area. We will make final designation decision for areas outside the Marshall County WV area in a subsequent round of designations. See the WV TSD and Ohio TSD for additional information.

**Comment:** The WV Division of Air Quality (DAQ) has performed additional technical analysis and recommends that EPA retain Mead Township in Belmont County Ohio in the Wheeling WV-OH Nonattainment Area. In particular although R.E. Burger power plant has ceased operations, emissions from this plant appear to have significantly impacted the air quality in Marshall County, WV during three year periods when monitored data showed violations of the NAAQS.

**EPA's Response:** EPA does not concur with this recommendation and is removing Mead Township from the nonattainment area. Additional information that responds to this comment can be found in our response to comment below which addresses a comment from Scott Nally of the Ohio Environmental Protection Agency. Additional information can be found in the Ohio and WV TSDs.

**Comment:** EPA is proposing to designate a portion of Belmont County, Ohio, nonattainment as part of the Wheeling WV-OH nonattainment area, as a result of violations occurring at a monitor in West Virginia. Upon further review of this recommendation, Ohio EPA urges EPA to designate all of Belmont County as unclassifiable. As recognized in both the West Virginia and Ohio technical support documents supplied by EPA, the only source in Ohio that may have been a significant

source is the R.E. Burger power plant. As indicated in Table 9 of Ohio's TSD, R.E. Burger represented just over 15,000 tpy out of over 66,700 tpy in the area in 2008. At that time the monitor in Ohio was at 105 ppb while the monitor in West Virginia was at 113 ppb. Since that time, emissions have decreased at the R.E. Burger plant to zero emissions in 2011 and 2012. This is the result of the permanent shutdown of two larger units (156 MW each) and the cold storage of two smaller units (94 MW each). Since the shutdown and cold storage, the Ohio monitor has shown attainment while the West Virginia monitor has continued to show nonattainment. It is Ohio's belief that any future consideration of Belmont County sources should be a part of the upcoming unclassifiable planning; therefore, we recommend an unclassifiable designation for all of Belmont County.

***EPA's Response:*** EPA has reviewed the SO<sub>2</sub> emissions data reported to the Clean Air Markets Division (CAMD) for the R.E. Burger plant, 2005-2012. These data confirm the emissions information in Ohio's comment.

The First Energy R.E. Burger power plant, in Shadyside, Ohio, is located two kilometers from the Marshall County monitor in Moundsville, West Virginia, and about seven kilometers from the Belmont County monitor. Given this proximity, EPA carefully evaluated this source as a potential contributor to the monitored SO<sub>2</sub> concentrations. On March 13, 2013, Ohio informed EPA that the R.E. Burger power plant had emitted no SO<sub>2</sub> in 2011 or 2012. Two of its four units (Units 7 and 8) had shut down permanently and enforceably in 2010. The remaining two smaller units (Units 5 and 6) are in cold storage. Cold storage is not a federally enforceable shutdown; those units currently retain the legal right to restart without obtaining a new permit. However, as discussed below, EPA believes that these units are unlikely to resume operation, and furthermore EPA believes that these units are unlikely to operate at a level that would warrant treating the source as contributing to the violation at the Marshall County monitor. In 2011, when the R.E. Burger power plant reported zero SO<sub>2</sub> emissions to EPA CAMD, the Moundsville monitor still exceeded the 2010 SO<sub>2</sub> NAAQS (79 ppb).

The table below shows the SO<sub>2</sub> emissions for Units 5 and 6 at the R.E. Burger power plant as reported to CAMD for the years starting in 2005. While these units had emissions of several hundred tons each in 2005 and 2007, emissions for all other years since 2005 have been under 100 tons for each unit, with emissions in most years being zero. By comparison, the larger two units at R.E. Burger (Units 7 and 8) emitted a combined total of 14,952 tons in 2008, a level that was close to average for these units for the years before they shut down by the beginning of 2011. These emissions from these larger units are prohibited from recurring by the permanent and enforceable shutdown of these units. The only emissions which might hypothetically resume are from Units 5 and 6, the smaller units at the plant, which have been effectively shut down since 2008, and which historically emitted less than ten percent, and most recently no more than about one percent, of the larger units' SO<sub>2</sub> emissions. It is unlikely that the two smaller units will restart, and if they do, they are unlikely to contribute significantly to the nonattainment values. Since these units were shut down before the larger units were shut down, and since these units have been in cold storage for two years after the larger units

were shut down, the shutdown of the larger units is not expected to result in load being shifted to the smaller units. The requirements of the Clean Air Interstate Rule (CAIR), which would make it even more expensive to operate these units, provide added incentive for FirstEnergy to continue keeping these units inoperative. Ohio provided further information about this facility in May 2013. Ohio staff spoke with representatives of FirstEnergy, who confirmed that they have no intention of restarting Units 5 and 6. The company is keeping the two units in “cold storage” rather than permanently shutting them down in order to maintain receiving allowances for use in other facilities, and for the income tax advantages of retaining the units on cold storage status. Units 5 and 6 are 63 years old, the R.E. Burger power plant currently has no coal onsite, and economics dictate that FirstEnergy is unlikely to restart these units. Therefore, EPA believes that the R.E. Burger power plant is not currently contributing and is not likely to contribute in the future to the Marshall WV nonattainment area, and EPA agrees with Ohio’s recommendation that Mead Township, Belmont County, should not be designated nonattainment for the 2010 SO<sub>2</sub> NAAQS.

**Table. Annual SO<sub>2</sub> Emissions for Units 5 and 6 at the R.E. Burger Power Plant (As reported to CAMD)**

Unit ID	Year	SO <sub>2</sub> (tons)	Heat Input (MMBtu)
5	2005	433.5	236316.6
6	2005	347.1	190433.0
5	2006	0	0
6	2006	0	0
5	2007	723.2	506796.2
6	2007	671.2	471102.9
5	2008	81.3	69613.9
6	2008	93.2	79246.6
5	2009	0	0
6	2009	0	0
5	2010	3.0	2483.4
6	2010	2.7	2239.9
5	2011	0	0
6	2011	0	0
5	2012	0	0
6	2012	0	0