



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGIONAL ADMINISTRATOR  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

August 13, 2020

The Honorable Eric Holcomb  
Governor of Indiana  
Office of the Governor  
200 W. Washington St., Rm. 206  
Indianapolis, Indiana 46204

Dear Governor Holcomb:

The purpose of this letter is to notify you of the U.S. Environmental Protection Agency's (EPA's) intended designations for the remaining undesignated areas in Indiana for the 2010 1-hour sulfur dioxide (SO<sub>2</sub>) primary national ambient air quality standard (NAAQS). In accordance with section 107(d)(1)(B)(ii) of the Clean Air Act (CAA), EPA is providing you with 120 days' notice before promulgating final designation for an area in Indiana. The designations for this NAAQS are an important part of EPA's commitment to a clean, healthy environment.

EPA's intended designations are a response to, and in consideration of, the recommendations and designations-related information your state submitted by letter dated April 16, 2020.

In previous final actions, EPA issued designations for the 2010 SO<sub>2</sub> NAAQS for most areas of the country.<sup>1</sup> To meet the requirements of a March 2, 2015 schedule ordered by the U.S. District Court for the Northern District of California, by December 31, 2020, EPA will sign for publication in the *Federal Register*, a notice promulgating designations for all remaining areas of the country.<sup>2</sup> We are referring to this final set of designations for the 2010 SO<sub>2</sub> NAAQS as "Round 4" designations. After EPA completes these Round 4 designations, there will be no remaining undesignated areas for the 2010 SO<sub>2</sub> NAAQS in the United States.

After carefully considering Indiana's recommendations and all available information, particularly (but not limited to) the most recent (2017-2019) air monitoring data, EPA intends to designate the following area in Indiana as shown in the table below. The enclosure to this letter provides the technical information that supports EPA's intended designation decision for this area in Indiana.<sup>3</sup> Our intended action is consistent with your recommendation.

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<sup>1</sup> Most areas of the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), December 13, 2016 (81 FR 89870), December 21, 2017 (83 FR 1098) and March 28, 2018 (83 FR 14597). The EPA is not reopening these previous designation actions in this current Round 4 of designations under the 2010 SO<sub>2</sub> NAAQS, except where specifically discussed.

<sup>2</sup> *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).

<sup>3</sup> Enclosure 1 includes *Chapter #1: Background and History* and *Chapter #2: Designations for Areas without Violating Monitors* of the Technical Support Document. The Technical Support Document is also available at <https://www.epa.gov/sulfur-dioxide-designations>.

Area	Included Counties	EPA's Intended Designation
Porter County	Porter County	Attainment/Unclassifiable

EPA will publish a notice in the *Federal Register* announcing a 30-day public comment period for interested parties to provide feedback on EPA's intended designations. States will have additional time beyond the public comment period to respond to public comments, if necessary, and/or provide additional information. If you or your staff have additional information that EPA should review and consider prior to promulgating final designations, please submit it as soon as possible but no later than October 16, 2020. You may submit additional information to EPA's public docket for these designations, Docket# EPA-HQ-OAR-2020-0037, located at [www.regulations.gov](http://www.regulations.gov).

Thank you for Indiana's efforts to provide cleaner air for the citizens in your state. We look forward to a continued dialogue with you and your staff as we work together to complete the area designations and implement the 2010 SO<sub>2</sub> NAAQS. For additional information regarding designations under the 2010 SO<sub>2</sub> NAAQS, please visit our website at <https://www.epa.gov/sulfur-dioxide-designations>. Should you have any questions, please do not hesitate to call me at 312-886-3000, or have your staff contact John Mooney, Acting Air Division Director, at [mooney.john@epa.gov](mailto:mooney.john@epa.gov), or at 312-886-6043.

Sincerely,



Kurt A. Thiede  
Regional Administrator

Enclosure: Technical Support Document, Chapter #1: Background and History and Chapter #2: Designations for Areas without Violating Monitors of the Technical Support Document

cc: Bruno L. Pigott, Commissioner, Indiana Department of Environmental Management  
Keith Baugues, Assistant Commissioner, Office of Air Quality

# Technical Support Document:

## Chapter 2

### Intended Round 4 Area Designations for the 2010 1-Hour SO<sub>2</sub> Primary National Ambient Air Quality Standard for Areas without Violating Monitors

#### 1. Introduction

Pursuant to section 107(d) of the Clean Air Act (CAA), the U.S. Environmental Protection Agency (EPA, we, or us) must designate areas as either “nonattainment,” “attainment,” or “unclassifiable” for the 2010 1-hour sulfur dioxide (SO<sub>2</sub>) primary national ambient air quality standard (NAAQS) (2010 SO<sub>2</sub> NAAQS). The CAA defines a nonattainment area as an area that does not meet the NAAQS or that contributes to a nearby area that does not meet the NAAQS. An attainment area is defined by the CAA as any area that meets the NAAQS and does not contribute to a nearby area that does not meet the NAAQS. Unclassifiable areas are defined by the CAA as those that cannot be classified on the basis of available information as meeting or not meeting the NAAQS. See CAA section 107(d)(1)(A)(i)-(iii).

In this action, EPA defines a nonattainment area as an area that, based on available information including (but not limited to) monitoring data and/or appropriate modeling analyses, EPA has determined either: (1) does not meet the 2010 SO<sub>2</sub> NAAQS, or (2) contributes to ambient air quality in a nearby area that does not meet the NAAQS. An attainment/unclassifiable area is defined as an area that, based on available information including (but not limited to) appropriate monitoring data and/or modeling analyses, EPA has determined meets the NAAQS and does not likely contribute to ambient air quality in a nearby area that does not meet the NAAQS. An unclassifiable area is defined as an area for which the available information does not allow EPA to determine whether the area meets the definition of a nonattainment area or the definition of an attainment/unclassifiable area.

EPA is under a December 31, 2020, deadline to designate all remaining undesignated areas as required by the U.S. District Court for the Northern District of California.<sup>1</sup> This deadline is the final of three deadlines established by the court for EPA to complete area designations for the 2010 SO<sub>2</sub> NAAQS. The remaining undesignated areas are: 1) those areas which, under the court order, did not meet the criteria that required designation in Round 2 and also were not required to be designated in Round 3 due to installation and operation of a new SO<sub>2</sub> monitoring network by January 2017 in the area meeting EPA’s specifications referenced in EPA’s SO<sub>2</sub> Data Requirements Rule (DRR)<sup>2</sup>, and 2) those areas which EPA has not otherwise previously designated for the 2010 SO<sub>2</sub> NAAQS. EPA previously issued guidance on how to appropriately

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<sup>1</sup> *Sierra Club v. McCarthy*, No. 3-13-cv-3953 (SI) (N.D. Cal. Mar. 2, 2015).

<sup>2</sup> See 80 FR 51052 (August 21, 2015), codified at 40 CFR part 51 subpart BB.

and sufficiently monitor ambient air quality in the “SO<sub>2</sub> NAAQS Designations Source-Oriented Monitoring Technical Assistance Document” (SO<sub>2</sub> NAAQS Designations Monitoring TAD).<sup>3</sup>

In previous final actions, EPA has issued designations for the 2010 SO<sub>2</sub> NAAQS for most areas of the country.<sup>4</sup> As mentioned, EPA is under a deadline of December 31, 2020, to designate the areas addressed in this technical support document (TSD) as required by the U.S. District Court for the Northern District of California. We are referring to the set of designations being finalized by the deadline of December 31, 2020, as “Round 4” or the final round of the designations process for the 2010 SO<sub>2</sub> NAAQS. After these Round 4 designations are completed, there will be no remaining undesignated areas for the 2010 SO<sub>2</sub> NAAQS.

This TSD, Chapter 2, specifically addresses Round 4 areas without violating SO<sub>2</sub> monitors which EPA intends to designate either attainment/unclassifiable or unclassifiable. TSD Chapters 3 through 12 mainly address areas that EPA intends to designate nonattainment.

States were initially required to submit designation recommendations for the 2010 SO<sub>2</sub> NAAQS in June 2011. Some states have submitted updated recommendation for EPA’s subsequent designation rounds. In EPA’s intended designations, we have considered all the submissions from the state, except where a later submission indicates that it replaces an element of an earlier submission.

For Round 4 areas with monitors that are not violating the 2010 SO<sub>2</sub> NAAQS, Table 1 identifies EPA’s intended Round 4 designations and the areas to which they would apply.<sup>5</sup> It also lists each state’s current recommendations. EPA intends to designate these areas by December 31, 2020, through an assessment and characterization of air quality based primarily on ambient monitoring data, including data from existing and new EPA-approved monitors that have collected data from January 2017 forward, pursuant to the DRR; however, other available evidence and supporting information, such as air dispersion modeling in certain situations, may also be considered.<sup>6</sup> Areas that EPA previously designated in Round 1 (*see* 78 FR 47191), Round 2 (*see* 81 FR 45039 and 81 FR 89870), and Round 3 (*see* 83 FR 1098 and 83 FR 14597) are not affected by the designations in Round 4 unless otherwise noted.

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<sup>3</sup> <https://www.epa.gov/sites/production/files/2016-04/documents/so2monitoringtad.pdf>

<sup>4</sup> Most areas of the U.S. were previously designated in actions published on August 5, 2013 (78 FR 47191), July 12, 2016 (81 FR 45039), December 13, 2016 (81 FR 89870), January 9, 2018 (83 FR 1098) and April 5, 2018 (83 FR 14597). EPA is not reopening these previous designation actions in this current Round 4 of designations under the 2010 SO<sub>2</sub> NAAQS, except where specifically discussed.

<sup>5</sup> Table 1 does not address any areas with Round 4 SO<sub>2</sub> monitors that may be violating the 2010 SO<sub>2</sub> NAAQS, nor does it address any potential attainment/unclassifiable area designations that may remain directly outside of the related nonattainment area boundaries, were applicable. Refer to Chapters 3 to 12 of the TSD for additional information.

<sup>6</sup> Detailed SO<sub>2</sub> monitor information may be found in either the 2016 or 2017 ambient monitoring network plans, or associated addenda, for each state.

**Table 1. EPA's Intended Designations for Areas with Monitors Attaining the 2010 SO<sub>2</sub> NAAQS or Areas with Monitors Having Invalid Design Values**

State	County/Area	Recommendation Date	State Recommended Area	State Recommended Designation	EPA's Intended Area	EPA's Intended Designation
AL	Shelby	05/25/2011	Shelby County	Attainment	Shelby (partial)*	Attainment/Unclassifiable
GA	Floyd	05/31/2011	Floyd County	Attainment/ Unclassifiable	Floyd County	Attainment/Unclassifiable
HI	Honolulu	05/19/2011	Honolulu County	Unclassifiable	Honolulu County	Attainment/Unclassifiable
IL	Macon	04/28/2020	Macon County	Attainment/ Unclassifiable	Macon County	Attainment/Unclassifiable
IN	Porter	04/16/2020	Porter County	Attainment/ Unclassifiable	Porter County	Attainment/Unclassifiable
LA	East Baton Rouge	04/23/2020	East Baton Rouge Parish	Attainment/ Unclassifiable	East Baton Rouge Parish	Attainment/Unclassifiable
LA	St. Charles	04/23/2020	St. Charles Parish	Attainment/ Unclassifiable	St. Charles Parish	Attainment/Unclassifiable
LA	St. James	04/23/2020	St. James Parish	Attainment/ Unclassifiable	St. James Parish	Attainment/Unclassifiable
LA	West Baton Rouge	04/23/2020	West Baton Rouge Parish	Attainment/ Unclassifiable	West Baton Rouge Parish	Attainment/Unclassifiable
MO	Iron	04/30/2020	Iron County	Attainment/ Unclassifiable	Iron County	Attainment/Unclassifiable
NE	Douglas	05/6/2020	Douglas County	Attainment/ Unclassifiable	Douglas County	Attainment/Unclassifiable
NY	Cayuga Seneca Tompkins	04/30/2020	Cayuga County Seneca County Tompkins County	Attainment	Cayuga County Seneca County Tompkins County	Attainment/Unclassifiable

<b>State</b>	<b>County/Area</b>	<b>Recommendation Date</b>	<b>State Recommended Area</b>	<b>State Recommended Designation</b>	<b>EPA's Intended Area</b>	<b>EPA's Intended Designation</b>
NC	Buncombe	04/29/2020	Limestone Township – Buncombe County	Attainment	Limestone Township – Buncombe County	Attainment/Unclassifiable
NC	Person	04/29/2020	Cunningham Township – Person County	Attainment	Cunningham Township – Person County	Attainment/Unclassifiable
ND	Williams	04/23/2020	Williams County	Attainment/ Unclassifiable	Williams County	Attainment/Unclassifiable
OK	Garfield	04/22/2020	Garfield County	Attainment/ Unclassifiable	Garfield County	Attainment/Unclassifiable
OK	Mayes	04/22/2020	Mayes County	Attainment/ Unclassifiable	Mayes County	Attainment/Unclassifiable
OK	Muskogee	04/22/2020	Muskogee County	Attainment/ Unclassifiable	Muskogee County	Attainment/Unclassifiable
PA	York	06/23/2011	York County	Unclassifiable	York County	Attainment/Unclassifiable
TX	Bexar	09/18/2015	Bexar County	Unclassifiable/ Attainment	Bexar County	Attainment/Unclassifiable
TX	Harrison	09/18/2015	Harrison County	Unclassifiable/ Attainment	Harrison County	Attainment/Unclassifiable
TX	Jefferson	09/18/2015	Jefferson County	Attainment	Jefferson County	Attainment/Unclassifiable
TX	Orange	05/11/2020	Orange County	Attainment/ Unclassifiable	Orange County	Unclassifiable
TX	Robertson	09/18/2015	Robertson County	Unclassifiable/ Attainment	Robertson County	Attainment/Unclassifiable
TX	Titus	09/18/2015	Titus County (partial)	Unclassifiable/ Attainment	Titus County (partial)*	Attainment/Unclassifiable

State	County/Area	Recommendation Date	State Recommended Area	State Recommended Designation	EPA's Intended Area	EPA's Intended Designation
VA	Alleghany	04/24/2020	City of Covington – Alleghany County	Attainment/Unclassifiable	City of Covington – Alleghany County	Attainment/Unclassifiable
VA	Botetourt	04/24/2020	Botetourt County	Attainment/Unclassifiable	Botetourt County	Attainment/Unclassifiable
WA	Chelan Douglas	06/15/2020	Chelan County Douglas County	Attainment	Chelan County Douglas County	Attainment/Unclassifiable
WY	Carbon	05/01/2020	Carbon County	Attainment	Carbon County	Attainment/Unclassifiable
WY	Fremont	05/01/2020	Fremont County (partial)	Attainment	Fremont County (partial)*	Attainment/Unclassifiable
WY	Converse	05/01/2020	Converse County	Attainment	Converse County	Attainment/Unclassifiable
WY	Sweetwater	05/01/2020	Sweetwater County (partial)	Attainment	Sweetwater County (partial)*	Attainment/Unclassifiable

\* The other portion of the area was designated previously.

## 2. General Approach and Schedule

An updated designations guidance document was issued by EPA through a September 5, 2019, memorandum from Peter Tsirigotis, Director, U.S. EPA, Office of Air Quality Planning and Standards, to Regional Air Division Directors, U.S. EPA Regions 1-10.<sup>7</sup> To better reflect the Round 4 designations process, this memorandum supplements, where necessary, prior designations guidance documents on area designations for the 2010 primary SO<sub>2</sub> NAAQS issued on March 24, 2011, March 20, 2015, and July 22, 2016. This memorandum identifies factors that EPA intends to evaluate in determining whether areas are in violation of the 2010 1-hour SO<sub>2</sub> NAAQS. The document also contains the factors that EPA intends to evaluate in determining the boundaries for all remaining areas in the country. These factors include: 1) air quality characterization via ambient monitoring and/or dispersion modeling results; 2) emissions-related data; 3) meteorology; 4) geography and topography; and 5) jurisdictional boundaries.

In EPA's September 2019, memorandum, we note that Round 4 area designations will be based primarily on ambient monitoring data, including data from existing and new EPA-approved monitors that have collected data at least from January 2017 forward, pursuant to the DRR. In addition, EPA may evaluate air dispersion modeling submitted by state air agencies for two specific circumstances. First, states may submit air dispersion modeling to support the geographic extent of a nonattainment boundary. Second, states may submit air dispersion modeling to demonstrate that new permanent and federally enforceable SO<sub>2</sub> emissions limits provide for attainment of the NAAQS and represent a more accurate characterization of current air quality at the time of designation than does monitoring of past air quality.

EPA does not plan to revise our intended designations TSDs after consideration of state and public comment on our intended designation. Separate final TSDs will be prepared as necessary to document how we have addressed such comments in the final designations.

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

- 1) 2010 SO<sub>2</sub> NAAQS – The primary NAAQS for SO<sub>2</sub> promulgated in 2010. This NAAQS is 75 ppb, based on the 3-year average of the 99<sup>th</sup> percentile of the annual distribution of daily maximum 1-hour average concentrations. See 40 CFR 50.17.
- 2) Design Value – a statistic computed according to the data handling procedures of the NAAQS (in 40 CFR part 50 Appendix T) that, by comparison to the level of the NAAQS, indicates whether the area is violating the 2010 SO<sub>2</sub> NAAQS.
- 3) Intended designated nonattainment area –an area that, based on available information including (but not limited to) monitoring data and/or appropriate modeling analyses, EPA intends to determine either: (1) does not meet the 2010 SO<sub>2</sub> NAAQS, or (2) contributes to ambient air quality in a nearby area that does not meet the NAAQS.

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<sup>7</sup> [https://www.epa.gov/sites/production/files/2019-09/documents/round\\_4\\_so2\\_designations\\_memo\\_09-05-2019\\_final.pdf](https://www.epa.gov/sites/production/files/2019-09/documents/round_4_so2_designations_memo_09-05-2019_final.pdf)



- 4) Intended designated attainment/unclassifiable area – an area that, based on available information including (but not limited to) appropriate monitoring data and/or appropriate modeling analyses, EPA intends to determine meets the 2010 SO<sub>2</sub> NAAQS and does not likely contribute to ambient air quality in a nearby area that does not meet the NAAQS.
- 5) Intended designated unclassifiable area – an area for which the available information does not allow EPA to determine whether the area meets the definition of a nonattainment area or the definition of an attainment/unclassifiable area.
- 6) Modeled violation – a modeled design value impact above the 2010 SO<sub>2</sub> NAAQS demonstrated by air dispersion modeling.
- 7) Recommended attainment area – an area that a state, territory, or tribe has recommended that EPA designate as attainment.
- 8) Recommended nonattainment area – an area that a state, territory, or tribe has recommended that EPA designate as nonattainment.
- 9) Recommended unclassifiable area – an area that a state, territory, or tribe has recommended that EPA designate as unclassifiable.
- 10) Recommended attainment/unclassifiable (or unclassifiable/attainment) area – an area that a state, territory, or tribe has recommended that EPA designate as attainment/unclassifiable (or unclassifiable/attainment).
- 11) Violating monitor – an ambient air monitor meeting 40 CFR parts 50, 53, and 58 requirements whose valid design value exceeds 75 ppb, based on data analysis conducted in accordance with Appendix T of 40 CFR part 50.
- 12) We, our, and us – these refer to EPA.

### 3. Air Quality Monitoring Data for Areas with Monitors Attaining the 2010 SO<sub>2</sub> NAAQS or Areas with Monitors Having Invalid Design Values

EPA considered design values for air quality monitors by assessing the most recent 3 consecutive years (i.e., 2017-2019) of quality-assured, certified ambient air quality data in the EPA Air Quality System (AQS) using data from Federal Reference Method and Federal Equivalent Method monitors that are sited and operated in accordance with 40 CFR parts 50 and 58.<sup>8</sup> Procedures for using monitored air quality data to determine whether a violation has occurred are given in 40 CFR part 50 Appendix T, as revised in the 2010 SO<sub>2</sub> NAAQS rulemaking. The 2010 1-hour SO<sub>2</sub> NAAQS is met when the design value is 75 ppb or less. Whenever several monitors are located in an area, the design value for the area is determined by the monitor with the highest valid design value.

Table 2 lists the 2017-2019 design values for Round 4 SO<sub>2</sub> monitors that are attaining the 2010 SO<sub>2</sub> NAAQS, and Table 3 lists the Round 4 SO<sub>2</sub> monitors with invalid design values.<sup>9</sup> EPA's intended designations for the areas represented in both tables are explained in more detail in Section 4.

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<sup>8</sup> SO<sub>2</sub> air quality data are available from EPA's website at <https://www.epa.gov/outdoor-air-quality-data>. SO<sub>2</sub> air quality design values are available at <https://www.epa.gov/air-trends/air-quality-design-values>.

<sup>9</sup> An SO<sub>2</sub> 1-hour primary standard design value is valid if it encompasses 3 consecutive years of complete data. A year meets data completeness requirements when all 4 quarters are complete. A quarter is complete when at least 75 percent of the sampling days for each quarter have complete data.

**Table 2. Round 4 SO<sub>2</sub> Monitors with Design Values Attaining the 2010 SO<sub>2</sub> NAAQS**

<b>State</b>	<b>County/ Parish</b>	<b>DRR Facility</b>	<b>AQS Site ID</b>	<b>2017 99<sup>th</sup> Percentile (ppb)</b>	<b>2018 99<sup>th</sup> Percentile (ppb)</b>	<b>2019 99<sup>th</sup> Percentile (ppb)</b>	<b>2017-2019 Design Value (ppb)</b>
AL	Shelby	Lhoist North America of Alabama - Montevallo Plant	01-117-9001	43.0	72.2	77.9	<b>64</b>
GA	Floyd	International Paper - Rome (Formerly Temple Inland)	13-115-0006	21.6	15.0	22.4	<b>20</b>
HI	Honolulu	AES Hawaii LLC Cogeneration Plant Hawaiian Electric Company (HECO) Kahe Generating Station Kalaeloa Cogeneration Plant	15-003-4001	54.7	37.8	61.8	<b>51</b>
HI	Honolulu	Hawaiian Electric Company (HECO) Waiau Generating Station	15-003-4100	14.5	16.1	16.3	<b>16</b>
IL	Macon	Archer Daniels Midland Company Tate & Lyle Ingredients Americas LLC	17-115-0117 17-115-0217 17-115-0317	27.8 76.6 74.3	20.8 83.9 89.0	17.0 41.8 34.2	<b>22</b> <b>67</b> <b>66</b>
IN	Porter	ArcelorMittal Burns Harbor LLC	18-127-0028	33.2	27.9	78.8	<b>47</b>
LA	East Baton Rouge	Oxbow Calcining LLC - Baton Rouge Calcined Coke Plant	22-033-0015	28.6	29.3	15.4	<b>24</b>
LA	St. Charles	Rain CII Carbon LLC - Norco Coke Plant	22-089-0006	53.0	52.7	52.5	<b>53</b>
LA	St. James	Rain CII Carbon LLC - Gramercy Coke Plant	22-093-0003	11.9	8.3	1.5	<b>7</b>
LA	West Baton Rouge	Tokai Carbon CB -Addis Facility	22-121-0002	26.4	20.8	13.6	<b>20</b>
MO	Iron	Doe Run Buick Resource Recycling	29-093-9009 29-093-9010 29-093-9011	50.9 46.5 44.0	47.7 36.3 34.5	50.0 35.0 48.3	<b>50</b> <b>39</b> <b>42</b>
NE	Douglas	OPPD - North Omaha Power	31-055-0057	36.1	36.5	28.5	<b>34</b>

State	County/ Parish	DRR Facility	AQS Site ID	2017 99 <sup>th</sup> Percentile (ppb)	2018 99 <sup>th</sup> Percentile (ppb)	2019 99 <sup>th</sup> Percentile (ppb)	2017-2019 Design Value (ppb)
NY	Cayuga Seneca Tompkins	Cayuga Generating Station	36-099-0002 36-109-0002	2.5 24.9	2.4 51.8	1.9 20.8	<b>2</b> <b>33</b>
NC	Buncombe	Asheville Steam Electric Plant - Duke Energy Progress, Inc.	37-021-0037	18.2	9.8	7.7	<b>12</b>
NC	Person	Roxboro Steam Electric Plant - Duke Energy Progress, LLC	37-145-0004	31.1	24.7	40.9	<b>32</b>
ND	Williams	Amerada Hess - Tioga Gas Plant	38-105-0106	17.0	14.0	17.0	<b>16</b>
OK	Garfield	Oxbow Calcining - Kremlin	40-047-0555	54.0	44.0	45.0	<b>48</b>
OK	Mayes	GRDA - Chouteau Coal Fired Complex	40-097-0188	25.0	25.0	16.0	<b>22</b>
OK	Muskogee	Georgia Pacific - Muskogee Mill OG&E - Muskogee Generating Station	40-101-0170	52.0	31.0	7.0	<b>30</b>
PA	York	Magnesita Refractories Pixelle Specialty Solutions - Spring Grove	42-133-0012	6.2	5.6	6.5	<b>6</b>
TX	Harrison	Southwestern Electric Power Co. - AEP Pirkey Power Plant	48-203-1079	32.8	44.5	54.0	<b>44</b>
TX	Jefferson	Oxbow Calcining LLC - Oxbow Calcining	48-245-1071	85.9	61.1	27.7	<b>58</b>
TX	Robertson	Oak Grove MGMT Company LLC - Oak Grove Steam Electric Station	48-395-1076	12.7	13.3	8.3	<b>11</b>
TX	Titus	Southwestern Electric Power Co. - Welsh Power Plant	48-449-1078	33.4	20.2	30.5	<b>28</b>
VA	Botetourt	Roanoke Cement Company	51-023-0004	39.9	28.4	35.5	<b>35</b>

State	County/ Parish	DRR Facility	AQS Site ID	2017 99 <sup>th</sup> Percentile (ppb)	2018 99 <sup>th</sup> Percentile (ppb)	2019 99 <sup>th</sup> Percentile (ppb)	2017-2019 Design Value (ppb)
VA	Alleghany	Westrock's Covington Mill (Meadwestvaco Packaging Resource Group)	51-580-0008	31.0	24.9	41.7	<b>33</b>
WA	Chelan Douglas	Alcoa Primary Metals Wenatchee Works	53-007-0012	1.1	1.2	1.0	<b>1</b>
WY	Carbon	Sinclair Wyoming - Sinclair Refinery	56-007-0009 56-007-0010	11.0 30.0	13.0 11.0	4.0 28.0	<b>9</b> <b>23</b>
WY	Fremont	Burlington Resources - Lost Cabin Gas Plant	56-013-0003	65.1	49.6	63.6	<b>59</b>
WY	Converse	PacifiCorp - Dave Johnston	56-009-0011	14.2	15.8	12.7	<b>14</b>
WY	Sweetwater	Solvay Chemicals - Solvay Green River TATA Chemicals - Green River Works Tronox Alkali - Granger Tronox - Westvaco	56-037-0014 56-037-0021	19.5 28.5	45.2 32.0	13.3 12.0	<b>26</b> <b>24</b>

**Table 3. Round 4 SO<sub>2</sub> Monitors with Invalid Design Values**

<b>State</b>	<b>County/ Parish</b>	<b>DRR Facility</b>	<b>Monitor ID</b>	<b>2017 99<sup>th</sup> Percentile (ppb)</b>	<b>2018 99<sup>th</sup> Percentile (ppb)</b>	<b>2019 99<sup>th</sup> Percentile (ppb)</b>	<b>2017-2019 Invalid Design Value (ppb)</b>
TX	Bexar	City Public Service - Calaveras Plant	48-029-1080	29.3	32.1	3.7	<b>22</b>
TX	Orange	Orion Engineered Carbons LLC - Echo Carbon Black	48-361-1083	80.2	84.0	62.2	<b>75</b>
WY	Carbon	Sinclair Wyoming - Sinclair Refinery	56-007-0008	7.0	7.0	3.0	<b>6</b>

## 4. Technical Analysis and EPA's Intended Designations for Areas with Monitors Attaining the 2010 SO<sub>2</sub> NAAQS or with Invalid Design Values

This technical analysis addresses Round 4 SO<sub>2</sub> monitors with design values attaining the 2010 SO<sub>2</sub> NAAQS and Round 4 SO<sub>2</sub> monitors with invalid design values, as listed in Table 2 and Table 3. Refer to Chapters 3 to 12 of the TSD for information regarding Round 4 SO<sub>2</sub> monitors with design values that are violating the 2010 SO<sub>2</sub> NAAQS, unless otherwise noted. These state-specific chapters include both EPA's intended nonattainment area designations as well as EPA's intended attainment/unclassifiable area designations for the remaining portion of each undesignated area, where applicable.

### 4.1. Alabama: Shelby County Area

EPA must designate the remaining undesignated portion of Shelby County, Alabama area by December 31, 2020, because the area has not been previously designated, and Alabama installed and began operating a new EPA-approved monitor pursuant to the DRR.

<sup>10</sup> This section presents all the available air quality information for the portion of Shelby County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Lhoist North America – Montevallo Plant emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the plant emitted 9,935 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Alabama has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate the remaining portion of Shelby County, Alabama as attainment/unclassifiable.

### 4.2. Georgia: Floyd County Area

EPA must designate the Floyd County, Georgia area by December 31, 2020, because the area has not been previously designated, and Georgia installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Floyd County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

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<sup>10</sup> An adjacent portion of Shelby County was previously designated unclassifiable in EPA's Round 3 designations (83 FR 1098; January 9, 2018).

- The International Paper – Rome facility (formerly Temple Inland) emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 2,356 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Georgia has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Floyd County, Georgia as attainment/unclassifiable.

#### 4.3. Hawaii: Honolulu County Area

EPA must designate the Honolulu County, Hawaii area by December 31, 2020, because the area has not been previously designated, and Hawaii installed and began operating new EPA-approved monitors pursuant to the DRR in two separate portions of the county. The first portion of Honolulu County includes the following SO<sub>2</sub> sources around which the DRR required the state to characterize air quality:

- The AES Hawaii LLC Cogeneration Plant emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the plant emitted 2,243 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Hawaii has chosen to characterize it via monitoring.
- The Hawaiian Electric Company (HECO) Kahe Generating Station emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 5,555 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Hawaii has chosen to characterize it via monitoring.
- The Kalaeloa Cogeneration Plant emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the plant emitted 2,917 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Hawaii has chosen to characterize it via monitoring.

The second portion of Honolulu County includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Hawaiian Electric Company (HECO) Waiau Generating Station emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 2,784 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Hawaii has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitors were sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in each of the areas surrounding the DRR sources mentioned above. Data collected at these monitors, shown in Table 2, indicates that the two areas have complete, valid 2017-2019 design values that are attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Honolulu County, Hawaii as attainment/unclassifiable.



#### 4.4. Illinois: Macon County Area

EPA must designate the Macon County, Illinois area by December 31, 2020, because the area has not been previously designated, and Illinois installed and began operating new EPA-approved monitors pursuant to the DRR. This section presents all the available air quality information for the portion of Macon County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Archer Daniels Midland Company facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 9,961 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Illinois has chosen to characterize it via monitoring.
- The Tate & Lyle Ingredients Americas LLC facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 4,379 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Illinois has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitors were sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR sources mentioned above. Data collected at these monitors, shown in Table 2, indicates that the area has complete, valid 2017-2019 design values that are attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Macon County, Illinois as attainment/unclassifiable.

#### 4.5. Indiana: Porter County Area

EPA must designate the Porter County, Indiana area by December 31, 2020, because the area has not been previously designated, and Indiana installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Porter County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The ArcelorMittal Burns Harbor LLC facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 12,189 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Indiana has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Porter County, Indiana as attainment/unclassifiable.

#### 4.6. Louisiana: East Baton Rouge Parish Area

EPA must designate the East Baton Rouge Parish, Louisiana area by December 31, 2020, because the area has not been previously designated, and Louisiana installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of East Baton Rouge Parish that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Oxbow Calcining LLC – Baton Rouge Calcined Coke Plant emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the plant emitted 12,300 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Louisiana has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate East Baton Rouge Parish, Louisiana as attainment/unclassifiable.

#### 4.7. Louisiana: St. Charles Parish Area

EPA must designate the St. Charles Parish, Louisiana area by December 31, 2020, because the area has not been previously designated, and Louisiana installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of St. Charles Parish that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Rain CII Carbon LLC – Norco Coke Plant emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the plant emitted 2,710 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Louisiana has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate St. Charles Parish, Louisiana as attainment/unclassifiable.

#### 4.8. Louisiana: St. James Parish Area

EPA must designate the St. James Parish, Louisiana area by December 31, 2020, because the area has not been previously designated, and Louisiana installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality

information for the portion of St. James Parish that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Rain CII Carbon LLC – Gramercy Coke Plant emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the plant emitted 5,234 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Louisiana has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate St. James Parish, Louisiana as attainment/unclassifiable.

#### 4.9. Louisiana: West Baton Rouge Parish Area

EPA must designate the West Baton Rouge Parish, Louisiana area by December 31, 2020, because the area has not been previously designated, and Louisiana installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of West Baton Rouge Parish that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Tokai Carbon CB - Addis Facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 6,743 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Louisiana has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate West Baton Rouge Parish, Louisiana as attainment/unclassifiable.

#### 4.10. Missouri: Iron County Area

EPA must designate the Iron County, Missouri area by December 31, 2020, because the area has not been previously designated, and Missouri installed and began operating new EPA-approved monitors pursuant to the DRR. This section presents all the available air quality information for the portion of Iron County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Doe Run Buick Resource Recycling facility emits less than 2,000 tons of SO<sub>2</sub> annually. Specifically, the facility emitted 1,649 tons of SO<sub>2</sub> in 2014. Missouri included

this source on the SO<sub>2</sub> DRR Source list, and the state has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitors were sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at these monitors, shown in Table 2, indicates that the area has complete, valid 2017-2019 design values that are attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Iron County, Missouri as attainment/unclassifiable.

#### 4.11. Nebraska: Douglas County Area

EPA must designate the Douglas County, Nebraska area by December 31, 2020, because the area has not been previously designated, and Nebraska installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Douglas County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The OPPD - North Omaha Power facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 11,245 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Nebraska has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Douglas County, Nebraska as attainment/unclassifiable.

#### 4.12. New York: Cayuga, Seneca, and Tompkins County Area

EPA must designate the Cayuga, Seneca, and Tompkins Counties, New York area by December 31, 2020, because the area has not been previously designated, and New York installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Cayuga, Seneca, and Tompkins Counties that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Cayuga Generating Station facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 2,846 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and New York has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2,

indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Cayuga, Seneca, and Tompkins Counties, New York as attainment/unclassifiable.

#### 4.13. North Carolina: Buncombe County Area

EPA must designate the remaining undesignated portion of the Buncombe County, North Carolina area by December 31, 2020, because the area has not been previously designated, and North Carolina installed and began operating a new EPA-approved monitor pursuant to the DRR.<sup>11</sup> This section presents all the available air quality information for the portion of Buncombe County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Asheville Steam Electric Plant - Duke Energy Progress, Inc. facility emits less than 2,000 tons of SO<sub>2</sub> annually. Specifically, the facility emitted 1,281 tons of SO<sub>2</sub> in 2014. North Carolina included this source on the SO<sub>2</sub> DRR Source list, and the state has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Limestone Township, North Carolina, which is the remaining undesignated portion of Buncombe County, as attainment/unclassifiable.

#### 4.14. North Carolina: Person County Area

EPA must designate the remaining undesignated portion of the Person County, North Carolina area by December 31, 2020, because the area has not been previously designated, and North Carolina installed and began operating a new EPA-approved monitor pursuant to the DRR.<sup>12</sup> This section presents all the available air quality information for the portion of Person County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Roxboro Steam Electric Plant - Duke Energy Progress, LLC facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 15,647 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and North Carolina has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2,

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<sup>11</sup> All townships in Buncombe County except for Limestone Township were previously designated attainment/unclassifiable in EPA's Round 3 designations (83 FR 1098; January 9, 2018).

<sup>12</sup> All townships in Person County except for Cunningham Township were previously designated attainment/unclassifiable in EPA's Round 3 designations (83 FR 1098; January 9, 2018).

indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Cunningham Township, North Carolina, which is the remaining undesignated portion of Person County, as attainment/unclassifiable.

#### 4.15. North Dakota: Williams County Area

EPA must designate the Williams County, North Dakota area by December 31, 2020, because the area has not been previously designated, and North Dakota installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Williams County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Amerada Hess - Tioga Gas Plant emits less than 2,000 tons of SO<sub>2</sub> annually. Specifically, the plant emitted 569 tons of SO<sub>2</sub> in 2014. Based on monitoring data collected at a non-regulatory monitor near the source which recorded values exceeding the 2010 SO<sub>2</sub> NAAQS from 2012-2014, EPA included the Tioga Gas Plant on the SO<sub>2</sub> DRR source list. North Dakota has chosen to characterize the source via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Williams County, North Dakota as attainment/unclassifiable.

#### 4.16. Oklahoma: Garfield County Area

EPA must designate the Garfield County, Oklahoma area by December 31, 2020, because the area has not been previously designated, and Oklahoma installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Garfield County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Oxbow Calcining- Kremlin facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 9,842 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Oklahoma has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Garfield County, Oklahoma as attainment/unclassifiable.

#### 4.17. Oklahoma: Mayes County Area

EPA must designate the Mayes County, Oklahoma area by December 31, 2020, because the area has not been previously designated, and Oklahoma installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Mayes County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The GRDA - Chouteau Coal Fired Complex emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 12,254 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Oklahoma has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Mayes County, Oklahoma as attainment/unclassifiable.

#### 4.18. Oklahoma: Muskogee County Area

EPA must designate the Muskogee County, Oklahoma area by December 31, 2020, because the area has not been previously designated. This section presents all the available air quality information for the portion of Muskogee County that includes the following SO<sub>2</sub> sources around which the DRR required the state to characterize air quality:

- The Georgia Pacific - Muskogee Mill facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 2,145 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Oklahoma has chosen to characterize it via monitoring.
- The OG&E - Muskogee Generating Station facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 20,538 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Oklahoma has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR sources mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Muskogee County, Oklahoma as attainment/unclassifiable.

#### 4.19. Pennsylvania: York County Area

EPA must designate the York County, Pennsylvania area by December 31, 2020, because the area has not been previously designated, and Pennsylvania installed and began operating a new EPA-approved monitor pursuant to the DRR. Refer to TSD Chapter 12 (Intended Round 4 Area Designations for the 2010 1-Hour SO<sub>2</sub> Primary National Ambient Air Quality Standard for Pennsylvania) for EPA's comprehensive analysis of the York County, Pennsylvania area.

#### 4.20. Texas: Bexar County Area

EPA must designate the Bexar County, Texas area by December 31, 2020, because the area has not been previously designated, and Texas installed and began operating a new EPA-approved monitor pursuant to the DRR. Refer to TSD Chapter 8 (Intended Round 4 Area Designations for the 2010 1-Hour SO<sub>2</sub> Primary National Ambient Air Quality Standard for Texas) for EPA's comprehensive analysis of the Bexar County, Texas area.

#### 4.21. Texas: Harrison County Area

EPA must designate the Harrison County, Texas area by December 31, 2020, because the area has not been previously designated, and Texas installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Harrison County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Southwestern Electric Power Company - AEP Pirkey Power Plant emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the plant emitted 2,916 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Texas has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Harrison County, Texas as attainment/unclassifiable.

#### 4.22. Texas: Jefferson County Area

EPA must designate the Jefferson County, Texas area by December 31, 2020, because the area has not been previously designated, and Texas installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Jefferson County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:



- The Oxbow Calcining LLC – Oxbow Calcining facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 11,319 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Texas has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. The monitoring site was relocated twice, with EPA approval, during the 2017-2019 monitoring period.<sup>13</sup> Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. EPA believes that the data are representative of the air quality in the Oxbow Calcining area regardless of the monitoring site moves. Therefore, EPA intends to designate Jefferson County, Texas as attainment/unclassifiable.

#### 4.23. Texas: Orange County Area

EPA must designate the Orange County, Texas area by December 31, 2020, because the area has not been previously designated, and Texas installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Orange County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Orion Engineered Carbons LLC – Echo Carbon Black emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 4,255 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Texas has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 3, indicates that the area has an incomplete 2017-2019 design value. The first quarter of 2018 has only 72.2% data completion, which is below the 75% data completeness requirement in 40 CFR part 50 Appendix T. From 2017-2019, the monitor recorded 10 daily maximum 1-hour average concentrations above the level of the 2010 SO<sub>2</sub> NAAQS. In addition, both the 2017 and 2018 99<sup>th</sup> percentile daily maximum 1-hour average concentrations were 80.2 and 84.0, respectively, which are also above the level of the 2010 SO<sub>2</sub> NAAQS. The 2019 99<sup>th</sup> percentile daily maximum 1-hour average concentration was 62.2 ppb, below the level of the 2010 SO<sub>2</sub> NAAQS.

In a May 11, 2020, designation recommendation letter, Texas mentions that new emissions reductions at the Orion facility may result in lower SO<sub>2</sub> concentrations; however, the state has

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<sup>13</sup> The monitor began operating on September 30, 2016 at the Port Arthur 7<sup>th</sup> Street site, which was approximately 1600 meters from the facility, and stopped operating on July 8, 2019 after EPA approved Texas' request to move the monitor due to construction impeding the site. On July 13, 2019, the monitor started operating at the Port Arthur West 7<sup>th</sup> Street site, which was approximately 1900 meters from the facility, and stopped operating on December 8, 2019 after EPA approved Texas' request to move the monitor due to complications with the site lease. Finally, on December 13, 2019, the monitor began operating at the Port Arthur West 7<sup>th</sup> Gate 2, which is approximately 1050 meters from the facility. The monitor continues to operate at this location.

not provided EPA with modeling of these new limits showing attainment of the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Orange County, Texas as unclassifiable due to the invalid design value and inconclusive data demonstrating whether the area attains the 2010 SO<sub>2</sub> NAAQS.

#### 4.24. Texas: Robertson County Area

EPA must designate the Robertson County, Texas area by December 31, 2020, because the area has not been previously designated, and Texas installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Robertson County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Oak Grove MGMT Company LLC - Oak Grove Steam Electric Station emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 7,404 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Texas has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Robertson County, Texas as attainment/unclassifiable.

#### 4.25. Texas: Titus County Area

EPA must designate the remaining portion of Titus County, Texas area by December 31, 2020, because the area has not been previously designated, and Texas installed and began operating a new EPA-approved monitor pursuant to the DRR.<sup>14</sup> This section presents all the available air quality information for the portion of Titus County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Southwestern Electric Power Company - Welsh Power Plant emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the plant emitted 18,225 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Texas has chosen to characterize it via monitoring.

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<sup>14</sup> An adjacent portion of Titus County was previously designated as nonattainment in EPA's Round 2 supplemental designations (81 FR 89870; December 13, 2016). In Round 3, EPA inadvertently listed the portion of Titus County containing Welsh Power Plant as attainment/unclassifiable on the Texas 40 CFR part 81 table for the 2010 SO<sub>2</sub> NAAQS (83 FR 1098; January 9, 2018). Consistent with the Round 3 rulemaking records, the remaining portion of Titus County should not have been listed as attainment/unclassifiable in the part 81 table. For the purposes of this TSD and Round 4 designations, EPA is treating the portion of Titus County containing the Welsh Power Plant as though it was not listed as attainment/unclassifiable on the part 81 table in Round 3.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate the remaining undesignated portion of Titus County, Texas as attainment/unclassifiable.

#### 4.26. Virginia: Alleghany County Area

EPA must designate the Alleghany County, Virginia area by December 31, 2020, because the area has not been previously designated, and Virginia installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Alleghany County that includes the following SO<sub>2</sub> source around which the DRR required the Commonwealth to characterize air quality:

- The Westrock's Covington Mill (Meadwestvaco Packaging Resource Group) emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 5,558 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Virginia has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Alleghany County, Virginia as attainment/unclassifiable.

#### 4.27. Virginia: Botetourt County Area

EPA must designate the Botetourt County, Virginia area by December 31, 2020, because the area has not been previously designated, and Virginia installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Botetourt County that includes the following SO<sub>2</sub> source around which the DRR required the Commonwealth to characterize air quality:

- The Roanoke Cement Company emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 2,393 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Virginia has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Botetourt County, Virginia as attainment/unclassifiable.

#### 4.28. Washington: Chelan and Douglas County Areas

EPA must designate the Chelan County and Douglas County, Washington area by December 31, 2020, because the area has not been previously designated, and Washington installed and began operating a new EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portions of Chelan and Douglas Counties that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Alcoa Primary Metals Wenatchee Works emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 2,935 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Washington has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Chelan County and Douglas County, Washington as attainment/unclassifiable.

#### 4.29. Wyoming: Carbon County Area

EPA must designate the Carbon County, Wyoming area by December 31, 2020, because the area has not been previously designated, and Wyoming installed and began operating new EPA-approved monitors pursuant to the DRR. This section presents all the available air quality information for the portion of Carbon County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Sinclair Wyoming - Sinclair Refinery emits less than 2,000 tons of SO<sub>2</sub> annually. Specifically, the facility emitted 72 tons of SO<sub>2</sub> in 2014. Wyoming included this source on the SO<sub>2</sub> DRR Source list, and the state has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitors were sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at these monitors, shown in Table 2, indicates that the area has two complete, valid 2017-2019 design values that are attaining the 2010 SO<sub>2</sub> NAAQS for two monitors. The third monitor (AQS Site ID 56-007-0008), shown in Table 3, has an invalid design value because of incomplete data. EPA intends to designate Carbon County, Wyoming as attainment/unclassifiable because two monitors at the facility, including the monitor with the highest readings, have valid design values showing attainment of the 2010 SO<sub>2</sub> NAAQS.

#### 4.30. Wyoming: Converse County Area

EPA must designate the Converse County, Wyoming area by December 31, 2020, because the area has not been previously designated, and Wyoming installed and began operating a new

EPA-approved monitor pursuant to the DRR. This section presents all the available air quality information for the portion of Converse County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The PacifiCorp - Dave Johnston facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 7,689 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Wyoming has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate Converse County, Wyoming as attainment/unclassifiable.

#### 4.31. Wyoming: Fremont County Area

EPA must designate the remaining undesignated portion of the Fremont County, Wyoming area by December 31, 2020, because the area has not been previously designated, and Wyoming installed and began operating a new EPA-approved monitor pursuant to the DRR.<sup>15</sup> This section presents all the available air quality information for the portion of Fremont County that includes the following SO<sub>2</sub> source around which the DRR required the state to characterize air quality:

- The Burlington Resources - Lost Cabin Gas Plant emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the plant emitted 3,186 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Wyoming has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitor was sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2, indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate the remaining portion of Fremont County, Wyoming as attainment/unclassifiable.

#### 4.32. Wyoming: Sweetwater County Area

EPA must designate the remaining undesignated portion of the Sweetwater County, Wyoming area by December 31, 2020, because the area has not been previously designated, and Wyoming installed and began operating new EPA-approved monitors pursuant to the DRR.<sup>16</sup> This section presents all the available air quality information for the portion of Sweetwater County that

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<sup>15</sup> An adjacent portion of Fremont County was previously designated attainment/unclassifiable in EPA's Round 3 designations (83 FR 1098; January 9, 2018).

<sup>16</sup> An adjacent portion of Sweetwater County was previously designated attainment/unclassifiable in EPA's Round 3 designations (83 FR 1098; January 9, 2018).

includes the following SO<sub>2</sub> sources around which the DRR required the state to characterize air quality:

- The TATA Chemicals - Green River Works facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 4,435 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Wyoming has chosen to characterize it via monitoring.
- The Tronox Alkali - Granger facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 352 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Wyoming has chosen to characterize it via monitoring.
- The Tronox - Westvaco facility emits 2,000 tons of SO<sub>2</sub> or more annually. Specifically, the facility emitted 2,912 tons of SO<sub>2</sub> in 2014. This source meets the DRR criteria and thus is on the SO<sub>2</sub> DRR Source list, and Wyoming has chosen to characterize it via monitoring.
- The Solvay Chemicals - Solvay Green River facility emits less than 2,000 tons of SO<sub>2</sub> or annually. Specifically, the facility emitted 28 tons of SO<sub>2</sub> in 2014. Wyoming included this source on the SO<sub>2</sub> DRR Source list as part of the cluster of sources in Sweetwater County, and the state has chosen to characterize it via monitoring.

The SO<sub>2</sub> monitors were sited to characterize the maximum 1-hour SO<sub>2</sub> concentrations in the area surrounding the DRR sources mentioned above. Data collected at these monitors, shown in Table 2, indicates that the area has complete, valid 2017-2019 design values that are attaining the 2010 SO<sub>2</sub> NAAQS. Therefore, EPA intends to designate the remaining portion of Sweetwater County, Wyoming as attainment/unclassifiable.