

Technical Support Document:

Chapter 2

Intended Round 4 Area Designations for the 2010 1-Hour SO₂ 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 (SO₂) primary national ambient air quality standard (NAAQS) (2010 SO₂ 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 SO₂ 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.¹ This deadline is the final of three deadlines established by the court for EPA to complete area designations for the 2010 SO₂ 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 SO₂ monitoring network by January 2017 in the area meeting EPA’s specifications referenced in EPA’s SO₂ Data Requirements Rule (DRR)², and 2) those areas which EPA has not otherwise previously designated for the 2010 SO₂ NAAQS. EPA previously issued guidance on how to appropriately

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

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

and sufficiently monitor ambient air quality in the “SO₂ NAAQS Designations Source-Oriented Monitoring Technical Assistance Document” (SO₂ NAAQS Designations Monitoring TAD).³

In previous final actions, EPA has issued designations for the 2010 SO₂ NAAQS for most areas of the country.⁴ 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 SO₂ NAAQS. After these Round 4 designations are completed, there will be no remaining undesignated areas for the 2010 SO₂ NAAQS.

This TSD, Chapter 2, specifically addresses Round 4 areas without violating SO₂ 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 SO₂ 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 SO₂ NAAQS, Table 1 identifies EPA’s intended Round 4 designations and the areas to which they would apply.⁵ 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.⁶ 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.

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

⁴ 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 SO₂ NAAQS, except where specifically discussed.

⁵ Table 1 does not address any areas with Round 4 SO₂ monitors that may be violating the 2010 SO₂ 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.

⁶ Detailed SO₂ 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 SO₂ 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 |

| State | County/Area | Recommendation Date | State Recommended Area | State Recommended Designation | EPA's Intended Area | EPA's Intended Designation |
|--------------|--------------------|----------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-----------------------------------|
| 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 1-10.⁷ To better reflect the Round 4 designations process, this memorandum supplements, where necessary, prior designations guidance documents on area designations for the 2010 primary SO₂ 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 SO₂ 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 SO₂ 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 SO₂ NAAQS – The primary NAAQS for SO₂ promulgated in 2010. This NAAQS is 75 ppb, based on the 3-year average of the 99th percentile of the annual distribution of daily maximum 1-hour average concentrations. See 40 CFR 50.17.
- 2) Design Value – a statistic computed according to the data handling procedures of the NAAQS (in 40 CFR part 50 Appendix T) that, by comparison to the level of the NAAQS, indicates whether the area is violating the 2010 SO₂ 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 SO₂ NAAQS, or (2) contributes to ambient air quality in a nearby area that does not meet the NAAQS.

⁷ 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 SO₂ 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 SO₂ 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 SO₂ 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 58.⁸ 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 SO₂ NAAQS rulemaking. The 2010 1-hour SO₂ 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 SO₂ monitors that are attaining the 2010 SO₂ NAAQS, and Table 3 lists the Round 4 SO₂ monitors with invalid design values.⁹ EPA's intended designations for the areas represented in both tables are explained in more detail in Section 4.

⁸ SO₂ air quality data are available from EPA's website at <https://www.epa.gov/outdoor-air-quality-data>. SO₂ air quality design values are available at <https://www.epa.gov/air-trends/air-quality-design-values>.

⁹ An SO₂ 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 SO₂ Monitors with Design Values Attaining the 2010 SO₂ NAAQS

| State | County/ Parish | DRR Facility | AQS Site ID | 2017 99 th Percentile (ppb) | 2018 99 th Percentile (ppb) | 2019 99 th Percentile (ppb) | 2017-2019 Design Value (ppb) |
|-------|---------------------|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|---------------------------------------|
| AL | Shelby | Lhoist North America of Alabama - Montevallo Plant | 01-117-9001 | 43.0 | 72.2 | 77.9 | 64 |
| GA | Floyd | International Paper - Rome (Formerly Temple Inland) | 13-115-0006 | 21.6 | 15.0 | 22.4 | 20 |
| 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 | 51 |
| HI | Honolulu | Hawaiian Electric Company (HECO) Waiau Generating Station | 15-003-4100 | 14.5 | 16.1 | 16.3 | 16 |
| 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 | 22 67 66 |
| IN | Porter | ArcelorMittal Burns Harbor LLC | 18-127-0028 | 33.2 | 27.9 | 78.8 | 47 |
| LA | East Baton Rouge | Oxbow Calcining LLC - Baton Rouge Calcined Coke Plant | 22-033-0015 | 28.6 | 29.3 | 15.4 | 24 |
| LA | St. Charles | Rain CII Carbon LLC - Norco Coke Plant | 22-089-0006 | 53.0 | 52.7 | 52.5 | 53 |
| LA | St. James | Rain CII Carbon LLC - Gramercy Coke Plant | 22-093-0003 | 11.9 | 8.3 | 1.5 | 7 |
| LA | West Baton Rouge | Tokai Carbon CB -Addis Facility | 22-121-0002 | 26.4 | 20.8 | 13.6 | 20 |
| 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 | 50 39 42 |
| NE | Douglas | OPPD - North Omaha Power | 31-055-0057 | 36.1 | 36.5 | 28.5 | 34 |

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

| State | County/ Parish | DRR Facility | AQS Site ID | 2017 99 th Percentile (ppb) | 2018 99 th Percentile (ppb) | 2019 99 th 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 | 33 |
| WA | Chelan Douglas | Alcoa Primary Metals Wenatchee Works | 53-007-0012 | 1.1 | 1.2 | 1.0 | 1 |
| WY | Carbon | Sinclair Wyoming - Sinclair Refinery | 56-007-0009 56-007-0010 | 11.0 30.0 | 13.0 11.0 | 4.0 28.0 | 9 23 |
| WY | Fremont | Burlington Resources - Lost Cabin Gas Plant | 56-013-0003 | 65.1 | 49.6 | 63.6 | 59 |
| WY | Converse | PacifiCorp - Dave Johnston | 56-009-0011 | 14.2 | 15.8 | 12.7 | 14 |
| 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 | 26 24 |

Table 3. Round 4 SO₂ Monitors with Invalid Design Values

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

4. Technical Analysis and EPA's Intended Designations for Areas with Monitors Attaining the 2010 SO₂ NAAQS or with Invalid Design Values

This technical analysis addresses Round 4 SO₂ monitors with design values attaining the 2010 SO₂ NAAQS and Round 4 SO₂ 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 SO₂ monitors with design values that are violating the 2010 SO₂ 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.

¹⁰ This section presents all the available air quality information for the portion of Shelby County that includes the following SO₂ source around which the DRR required the state to characterize air quality:

- The Lhoist North America – Montevallo Plant emits 2,000 tons of SO₂ or more annually. Specifically, the plant emitted 9,935 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Alabama has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ source around which the DRR required the state to characterize air quality:

¹⁰ 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 SO₂ or more annually. Specifically, the facility emitted 2,356 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Georgia has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ sources around which the DRR required the state to characterize air quality:

- The AES Hawaii LLC Cogeneration Plant emits 2,000 tons of SO₂ or more annually. Specifically, the plant emitted 2,243 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ 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 SO₂ or more annually. Specifically, the facility emitted 5,555 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Hawaii has chosen to characterize it via monitoring.
- The Kalaeloa Cogeneration Plant emits 2,000 tons of SO₂ or more annually. Specifically, the plant emitted 2,917 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Hawaii has chosen to characterize it via monitoring.

The second portion of Honolulu County includes the following SO₂ source around which the DRR required the state to characterize air quality:

- The Hawaiian Electric Company (HECO) Waiuu Generating Station emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 2,784 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Hawaii has chosen to characterize it via monitoring.

The SO₂ monitors were sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ source around which the DRR required the state to characterize air quality:

- The Archer Daniels Midland Company facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 9,961 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Illinois has chosen to characterize it via monitoring.
- The Tate & Lyle Ingredients Americas LLC facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 4,379 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Illinois has chosen to characterize it via monitoring.

The SO₂ monitors were sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ source around which the DRR required the state to characterize air quality:

- The ArcelorMittal Burns Harbor LLC facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 12,189 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Indiana has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ 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 SO₂ or more annually. Specifically, the plant emitted 12,300 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Louisiana has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ 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 SO₂ or more annually. Specifically, the plant emitted 2,710 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Louisiana has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ 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 SO₂ or more annually. Specifically, the plant emitted 5,234 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Louisiana has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ source around which the DRR required the state to characterize air quality:

- The Tokai Carbon CB - Addis Facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 6,743 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Louisiana has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ 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 SO₂ annually. Specifically, the facility emitted 1,649 tons of SO₂ in 2014. Missouri included

this source on the SO₂ DRR Source list, and the state has chosen to characterize it via monitoring.

The SO₂ monitors were sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ source around which the DRR required the state to characterize air quality:

- The OPPD - North Omaha Power facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 11,245 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Nebraska has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ source around which the DRR required the state to characterize air quality:

- The Cayuga Generating Station facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 2,846 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and New York has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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.¹¹ This section presents all the available air quality information for the portion of Buncombe County that includes the following SO₂ 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 SO₂ annually. Specifically, the facility emitted 1,281 tons of SO₂ in 2014. North Carolina included this source on the SO₂ DRR Source list, and the state has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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.¹² This section presents all the available air quality information for the portion of Person County that includes the following SO₂ 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 SO₂ or more annually. Specifically, the facility emitted 15,647 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and North Carolina has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ concentrations in the area surrounding the DRR source mentioned above. Data collected at this monitor, shown in Table 2,

¹¹ 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).

¹² 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 SO₂ 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 SO₂ 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 SO₂ annually. Specifically, the plant emitted 569 tons of SO₂ in 2014. Based on monitoring data collected at a non-regulatory monitor near the source which recorded values exceeding the 2010 SO₂ NAAQS from 2012-2014, EPA included the Tioga Gas Plant on the SO₂ DRR source list. North Dakota has chosen to characterize the source via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ source around which the DRR required the state to characterize air quality:

- The Oxbow Calcining- Kremlin facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 9,842 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Oklahoma has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ source around which the DRR required the state to characterize air quality:

- The GRDA - Chouteau Coal Fired Complex emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 12,254 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Oklahoma has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ sources around which the DRR required the state to characterize air quality:

- The Georgia Pacific - Muskogee Mill facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 2,145 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Oklahoma has chosen to characterize it via monitoring.
- The OG&E - Muskogee Generating Station facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 20,538 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Oklahoma has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ or more annually. Specifically, the plant emitted 2,916 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Texas has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ source around which the DRR required the state to characterize air quality:

- The Oxbow Calcining LLC – Oxbow Calcining facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 11,319 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Texas has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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.¹³ 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 SO₂ 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 SO₂ 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 SO₂ or more annually. Specifically, the facility emitted 4,255 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Texas has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ NAAQS. In addition, both the 2017 and 2018 99th percentile daily maximum 1-hour average concentrations were 80.2 and 84.0, respectively, which are also above the level of the 2010 SO₂ NAAQS. The 2019 99th percentile daily maximum 1-hour average concentration was 62.2 ppb, below the level of the 2010 SO₂ NAAQS.

In a May 11, 2020, designation recommendation letter, Texas mentions that new emissions reductions at the Orion facility may result in lower SO₂ concentrations; however, the state has

¹³ The monitor began operating on September 30, 2016 at the Port Arthur 7th 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 7th 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 7th 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ or more annually. Specifically, the facility emitted 7,404 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Texas has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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.¹⁴ This section presents all the available air quality information for the portion of Titus County that includes the following SO₂ 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 SO₂ or more annually. Specifically, the plant emitted 18,225 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Texas has chosen to characterize it via monitoring.

¹⁴ 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 SO₂ 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 SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ 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 SO₂ or more annually. Specifically, the facility emitted 5,558 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Virginia has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ source around which the DRR required the Commonwealth to characterize air quality:

- The Roanoke Cement Company emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 2,393 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Virginia has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ source around which the DRR required the state to characterize air quality:

- The Alcoa Primary Metals Wenatchee Works emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 2,935 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Washington has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ source around which the DRR required the state to characterize air quality:

- The Sinclair Wyoming - Sinclair Refinery emits less than 2,000 tons of SO₂ annually. Specifically, the facility emitted 72 tons of SO₂ in 2014. Wyoming included this source on the SO₂ DRR Source list, and the state has chosen to characterize it via monitoring.

The SO₂ monitors were sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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 SO₂ 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 SO₂ source around which the DRR required the state to characterize air quality:

- The PacifiCorp - Dave Johnston facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 7,689 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Wyoming has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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.¹⁵ This section presents all the available air quality information for the portion of Fremont County that includes the following SO₂ source around which the DRR required the state to characterize air quality:

- The Burlington Resources - Lost Cabin Gas Plant emits 2,000 tons of SO₂ or more annually. Specifically, the plant emitted 3,186 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Wyoming has chosen to characterize it via monitoring.

The SO₂ monitor was sited to characterize the maximum 1-hour SO₂ 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 SO₂ 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.¹⁶ This section presents all the available air quality information for the portion of Sweetwater County that

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

¹⁶ 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 SO₂ sources around which the DRR required the state to characterize air quality:

- The TATA Chemicals - Green River Works facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 4,435 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Wyoming has chosen to characterize it via monitoring.
- The Tronox Alkali - Granger facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 352 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ DRR Source list, and Wyoming has chosen to characterize it via monitoring.
- The Tronox - Westvaco facility emits 2,000 tons of SO₂ or more annually. Specifically, the facility emitted 2,912 tons of SO₂ in 2014. This source meets the DRR criteria and thus is on the SO₂ 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 SO₂ or annually. Specifically, the facility emitted 28 tons of SO₂ in 2014. Wyoming included this source on the SO₂ DRR Source list as part of the cluster of sources in Sweetwater County, and the state has chosen to characterize it via monitoring.

The SO₂ monitors were sited to characterize the maximum 1-hour SO₂ 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 SO₂ NAAQS. Therefore, EPA intends to designate the remaining portion of Sweetwater County, Wyoming as attainment/unclassifiable.