



## **ENVIRONMENTAL PROTECTION AGENCY**

### **40 CFR Part 52**

**[EPA-R06-OAR-2020-0434; FRL-10014-56-Region 6]**

### **Approval of Texas Air Quality Plans; Clean Data Determination for the 2010 1-Hour Primary Sulfur Dioxide National Ambient Air Quality Standard; Anderson and Freestone Counties and Titus County Nonattainment Areas**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to determine that the Anderson and Freestone Counties and the Titus County nonattainment areas, in Texas, have attained the 2010 1-hour primary Sulfur Dioxide (SO<sub>2</sub>) National Ambient Air Quality Standard (NAAQS) per the EPA's Clean Data Policy. The primary sources of SO<sub>2</sub> emissions in these counties have permanently shut down and as a result air quality in these areas is now meeting the NAAQS for SO<sub>2</sub>. This proposed determination is supported by monitoring data from within or near to the nonattainment areas, emissions data and an evaluation of previous modeling.

**DATES:** Comments must be received on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R06-OAR-2020-0434, to [https:// www.regulations.gov](https://www.regulations.gov). Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose

disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment.

The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system).

For additional submission methods, please contact Robert Imhoff, (214) 665-7262, Imhoff.Robert@epa.gov. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

*Docket:* The index to the docket for this action is available electronically at [www.regulations.gov](http://www.regulations.gov). While all documents in the docket are listed in the index, some information may not be publicly available due to docket file size restrictions or content (e.g., CBI).

**FOR FURTHER INFORMATION CONTACT:** Robert Imhoff, EPA Region 6 Office, SO<sub>2</sub> and Regional Haze Branch, (214) 665–7262, or by email at Imhoff.Robert@epa.gov. Out of an abundance of caution for members of the public and our staff, the EPA Region 6 office will be closed to the public to reduce the risk of transmitting COVID-19. We encourage the public to submit comments via <https://www.regulations.gov>, as there will be a delay in processing mail and no courier or hand deliveries will be accepted. Please call or e-mail the contact listed above if you need alternative access to material indexed but not provided in the docket.

**SUPPLEMENTARY INFORMATION:**

Throughout this document “we,” “us,” and “our” refer to the EPA.

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**I. What Action is the EPA Proposing?**

The EPA is proposing to determine that portions of Anderson and Freestone Counties and Titus County (hereby referred to as “the nonattainment areas”), in Texas, have attained the 2010 1-hour primary SO<sub>2</sub> NAAQS<sup>1</sup>. This proposed determination of attainment is in response to a June 30, 2020 request from the state<sup>2</sup> that the EPA consider information - including quality

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<sup>1</sup> In accordance with Appendix T to 40 CFR part 50, the 1-hour primary SO<sub>2</sub> NAAQS is met at an ambient air quality monitoring site when the valid 1-hour primary standard design value is less than or equal to 75 parts per billion (ppb). 40 CFR 50.17(b).

<sup>2</sup> June 30, 2020 Letter from Toby Baker, Executive Director of TCEQ to Ken McQueen, Regional Administrator of EPA Region 6, subject: “Sulfur Dioxide Clean Data Determination Request for Portions of Freestone, Anderson, and Titus Counties in Texas” included in the docket for this action.

assured and certified ambient air monitoring data<sup>3</sup> from the 2017–2019 monitoring period and the permanent and enforceable shutdown of the primary sources of SO<sub>2</sub> emissions in these areas, Big Brown Power Plant (Big Brown) and Monticello Steam Electric Station (Monticello), that were the key contributors to the violations of the standard - which both support our proposed finding that the nonattainment areas have attained the 2010 1-hour primary SO<sub>2</sub> NAAQS.

The primary basis for the state's request is that the primary sources of SO<sub>2</sub> emissions in these nonattainment areas have permanently shut down. These sources were located in rural areas with few other sources. EPA has reviewed the Texas Commission on Environmental Quality (TCEQ) submission, available monitoring data and past modeling to base our proposed finding that air quality in these nonattainment areas is now meeting the NAAQS for SO<sub>2</sub>. The EPA has made the monitoring data, permit information submitted by the state, and additional information developed by EPA to support this proposed action available in the docket to this rulemaking through [www.regulations.gov](http://www.regulations.gov) (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

## **II. What is the Background of this Action?**

### **A. Nonattainment Designation**

On June 22, 2010 (75 FR 35520), the EPA published a health-based 1-hour primary SO<sub>2</sub> NAAQS at 75 parts per billion (ppb). Following promulgation of a new or revised NAAQS, section 107(d) of the Clean Air Act (CAA) requires the EPA to designate any area that does not

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<sup>3</sup> Monitoring data must be reported, quality assured, and certified in accordance with the requirements set forth in 40 CFR part 58.

meet (or that contributes to ambient air quality in a nearby area that does not meet) the NAAQS as nonattainment.

The process for designating areas following promulgation of a new or revised NAAQS is contained in CAA section 107(d) (42 U.S.C. 7407(d)). After promulgation of a new or revised NAAQS, each governor or tribal leader has an opportunity to recommend air quality designations, including the appropriate boundaries for nonattainment areas, to the EPA (42 U.S.C. 7407(d)(1)(A)). The EPA considers these recommendations when fulfilling its duty to promulgate the formal area designations and boundaries for the new or revised NAAQS. By no later than 120 days prior to promulgating designations, the EPA is required to notify states, territories, and tribes, as appropriate, of any intended modifications to an area designation or boundary recommendation that the EPA deems necessary (42 U.S.C. 7407(d)(1)(B)).

After invoking a 1-year extension of the deadlines to designate areas, as provided for in section 107(d)(1)(B) of the Act, the EPA published an initial round of SO<sub>2</sub> designations for certain areas of the country on August 5, 2013 (referred to as “Round 1”) (78 FR 47191). Following the Round 1 designations, several groups filed lawsuits against the EPA alleging the agency had failed to perform a nondiscretionary duty under the CAA to designate all portions of the country by the June 2, 2013, statutory deadline. As a result of the lawsuits, the EPA entered into a March 2, 2015, Consent Decree<sup>4</sup> which required the EPA to complete the remaining area designations by three specific deadlines known as Rounds 2, 3, and 4 according to the court-ordered schedule. To meet the Round 2 court-ordered deadline for the SO<sub>2</sub> designations, the

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<sup>4</sup> Mar. 02, 2015 Consent Decree; Sierra Club and Natural Resources Defense Council v. EPA, Case No. 3:13-cv-3953-SI (N.D. Cal.).

court order required the EPA to designate areas containing sources meeting certain criteria no later than July 2, 2016.<sup>5</sup>

For SO<sub>2</sub> NAAQS designations, air agencies have the flexibility to characterize air quality using either appropriately sited ambient air quality monitors or using modeling of actual or allowable source emissions. The EPA issued the non-binding draft Monitoring Technical Assistance Document (TAD) and Modeling TAD<sup>6</sup> recommending how air agencies should conduct such monitoring or modeling. The 1-hour primary SO<sub>2</sub> standard is violated at an ambient air quality monitoring site (or in the case of dispersion modeling, at an ambient air quality receptor location) when the 3-year average of the annual 99th percentile of the daily maximum 1-hour average concentrations exceeds 75 ppb, as determined in accordance with appendix T of 40 CFR part 50. To determine model-based violations, the EPA believes that dispersion modeling is the appropriate tool, as discussed in the Modeling TAD. The TAD provides recommendations on how an air agency might appropriately and sufficiently model ambient air in proximity to an SO<sub>2</sub> emission source to establish air quality data for comparison to the 2010 primary SO<sub>2</sub> NAAQS for the purposes of designations.

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<sup>5</sup> Areas with three years of monitoring data showing violations of the NAAQS and areas containing stationary sources that had not been announced for retirement and that according to the EPA's Air Markets Database emitted in 2012 either (i) more than 16,000 tons of SO<sub>2</sub> or (ii) more than 2,600 tons of SO<sub>2</sub> with an annual average emission rate of 0.45 pounds of SO<sub>2</sub> per one million British thermal units (lbs SO<sub>2</sub>/mmBTU) or higher. Mar. 02, 2015 Consent Decree; Sierra Club and Natural Resources Defense Council, et al. v. EPA, Case No. 3:13-cv-03953-SI (N.D. Cal.).

<sup>6</sup> Technical Assistance Documents for Implementing the 2010 Sulfur Dioxide Standard, August 2016 and February 2016, <https://www.epa.gov/so2-pollution/technical-assistance-documents-implementing-2010-sulfur-dioxide-standard>.

In September 2015, Texas submitted updated recommendations for areas of the state where there were no monitors, including the above counties.<sup>7</sup> Texas recommended “unclassifiable/attainment” designations for those areas and stated its position that ambient air monitoring data were the appropriate information for use in attainment and nonattainment designations.

On June 30, 2016, the EPA signed the final action designating 61 additional areas for Round 2 (81 FR 45039, July 12, 2016). On November 29, 2016, EPA supplemented its Round 2 designations by signing a supplemental final action that included nonattainment designations for portions of Freestone and Anderson Counties and Titus County (“Round 2 Supplement”) (81 FR 89870, December 13, 2016). This action established an attainment date five years after the effective date for the areas designated as nonattainment for the 2010 SO<sub>2</sub> NAAQS (i.e., by January 12, 2022). The state is required to submit a State Implementation Plan (SIP) for the nonattainment areas to the EPA that meets the requirements of CAA sections 110 and 172(c), and 191–192 within 18 months following the January 12, 2017 effective date of designation (i.e., by July 12, 2018). The State of Texas has not yet submitted the Nonattainment Area Plan for the 2010 1-Hour Sulfur Dioxide National Ambient Air Quality Standard for these areas. Therefore, on August 10, 2020, EPA published a Finding of Failure to Submit (FFS) for Texas for these two nonattainment areas and one additional area. As a consequence of the FFS, Texas must submit a complete SIP for each area addressing the outstanding SIP requirements by February 10, 2022 (18 months from the effective date of the finding) or be subject to mandatory sanctions under the

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<sup>7</sup> <https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2014-0464-0080&contentType=pdf>

Clean Air Act. Additionally, Texas must submit and obtain EPA approval of its SIP by August 10, 2022 or EPA must promulgate a Federal Implementation Plan addressing any outstanding SIP requirements. As discussed in more detail below, if this proposed Clean Data Determination is finalized, certain nonattainment area SIP requirements for these two nonattainment areas are suspended as long as air quality continues to meet the standard.

For the SO<sub>2</sub> designations in the two Texas areas addressed in this action, the EPA considered the data available at the time of designations, including modeling submitted by Vistra Energy and the Sierra Club in March 2016. EPA found that the technical analysis provided by the Sierra Club demonstrated that in the Freestone and Anderson Counties area, Big Brown Steam Electric Station (“Big Brown”) and in the Titus County area, Monticello Steam Electric Station (“Monticello”) plants were the primary sources of SO<sub>2</sub> emissions and the key contributors to the modeled 2010 SO<sub>2</sub> NAAQS violations. A nonattainment area encompasses the area shown to be in violation of the standard and the principal source or sources that contributes to the violation. The analysis of the maximum impacts around Big Brown and around Monticello showed that Big Brown and Monticello were responsible for almost 100% of the impacts on the maximum modeled concentrations in each area, and therefore only these sources were included within the boundaries of the nonattainment areas. A complete description of the State recommendations and data considered in proposing and finalizing those designations are included in the Texas Intended TSD<sup>8</sup> and Texas Final TSD<sup>9</sup> from Round 2 that are also included in the docket to this proposed rulemaking.

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<sup>8</sup> <https://www.epa.gov/sites/production/files/2016-03/documents/tx-epa-tds-r2.pdf>.

<sup>9</sup> [https://www.epa.gov/sites/production/files/201611/documents/texas\\_4\\_deferred\\_luminant\\_tsd\\_final\\_docket.pdf](https://www.epa.gov/sites/production/files/201611/documents/texas_4_deferred_luminant_tsd_final_docket.pdf).

## **B. Clean Data Policy**

The EPA issued its “Clean Data” policy memoranda for SO<sub>2</sub> and other NAAQS describing reduced attainment planning requirements for nonattainment areas that attain the NAAQS but have not yet been redesignated as attainment.<sup>10, 11</sup> When EPA considers a clean data determination for a designated SO<sub>2</sub> NAAQS nonattainment area, the EPA determines whether an area has attained the NAAQS based on air quality monitoring data (when available) and air quality dispersion modeling information for the affected area as necessary.

Additionally, the EPA has issued national rulemakings that have codified this policy for ozone and fine particulate matter (PM<sub>2.5</sub>) NAAQS.<sup>12</sup> Under our Clean Data policy, the EPA has consistently interpreted the requirements of the CAA that are specifically designed to help an area achieve attainment, such as attainment demonstrations and implementation of reasonably available control measures (including reasonably available control technology), reasonable further progress (RFP) demonstrations, and contingency measures, to be suspended as long as air quality continues to meet the standard because requirements designed to achieve or plan for attainment are no longer necessary when an area is already meeting the standard. The

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<sup>10</sup> Memorandum of December 14, 2004, from Steve Page, Director, EPA Office of Air Quality Planning and Standards to the EPA Air Division Directors, “Clean Data Policy for the Fine Particle National Ambient Air Quality Standards.” This document is available at: <http://www.epa.gov/pmdesignations/guidance.htm>.

<sup>11</sup> The memorandum of April 23, 2014, from Steve Page, Director, EPA Office of Air Quality Planning and Standards to the EPA Air Division Directors “Guidance for 1-hr SO<sub>2</sub> Nonattainment Area SIP Submissions” provides guidance for the application of the clean data policy to the 2010 1-hour primary SO<sub>2</sub> NAAQS. This document is available at [https://www.epa.gov/sites/production/files/2016-06/documents/20140423guidance\\_nonattainment\\_sip.pdf](https://www.epa.gov/sites/production/files/2016-06/documents/20140423guidance_nonattainment_sip.pdf).

<sup>12</sup> See, e.g., 81 FR 58010, 81 FR 58127–58129 (August 24, 2016) (promulgating 40 CFR 51.1015); 80 FR 12264, 80 FR 12296 (promulgating 51.1118). See also 70 FR 1612, 70 FR 71664–46 (November 29, 2005); 72 FR 20585, 72 FR 20603–20605 (April 25, 2007).

nonattainment new source review and emissions inventory requirements are not suspended under a Clean Data Determination and must still be addressed for the nonattainment areas.

In the memorandum of April 23, 2014, from Steve Page, Director, EPA Office of Air Quality Planning and Standards to the EPA Air Division Directors “Guidance for 1-hr SO<sub>2</sub> Nonattainment Area SIP Submissions” (2014 SO<sub>2</sub> Nonattainment Area Guidance), the EPA explained its intention to extend the Clean Data Policy to 1-hour SO<sub>2</sub> nonattainment areas that show attainment of the SO<sub>2</sub> standard. As noted therein, the legal bases set forth in the various guidance documents and regulations establishing the Clean Data Policy for other pollutants are equally pertinent to all NAAQS.<sup>13</sup> This proposed determination is also consistent with prior actions of the EPA applying the Clean Data Policy to other nonattainment areas under the 2010 SO<sub>2</sub> NAAQS.<sup>14</sup>

A clean data determination is not a redesignation to attainment. For the EPA to redesignate a nonattainment area to attainment, the area must satisfy all of the statutory criteria for redesignation to attainment which, in addition to determining the area is in attainment, include a demonstration that the improvement in the area’s air quality is due to permanent and enforceable emission reductions; have a fully approved SIP that meets all of the applicable requirements under CAA section 110 and CAA part D; and have a fully approved maintenance plan.<sup>15</sup>

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<sup>13</sup> See court cases upholding the legal basis for the EPA’s Clean Data Determination Policy, *NRDC v. EPA*, 571 F.3d at 1258–61 (D.C. Cir. 2009); *Sierra Club v. EPA*, 99 F.3d 551 (10th Cir. 1996); *Latino Issues Forum v. EPA*, 315 Fed. App. 651, 652 (9th Cir. 2009).

<sup>14</sup> For example, see 82 FR 13227 (March 10, 2016) and 81 FR 28718 (May 10, 2016).

<sup>15</sup> Clean Air Act Section 107(d)(3)(E).

### **C. How Does a Nonattainment Area Achieve “Clean Data” for the 2010 1-Hour Primary SO<sub>2</sub> NAAQS?**

Generally, the EPA relies on ambient air quality monitoring data alone in order to make determinations of attainment for areas designated nonattainment for a particular NAAQS. However, given the Agency's historical approach toward SO<sub>2</sub>, the source-specific nature of SO<sub>2</sub> emissions, and the localized effect of those emissions the EPA has emphasized the use of additional sources of air quality information to determine attainment of the SO<sub>2</sub> NAAQS. In the preamble to the 2010 1-hour primary SO<sub>2</sub> NAAQS rulemaking, the EPA stated that it did not expect to rely solely on monitored air quality data in all areas when determining if an area has attained the 2010 1-hour primary SO<sub>2</sub> NAAQS (75 FR 35551).

The 2014 SO<sub>2</sub> Nonattainment Area Guidance states that in order for a nonattainment area that was designated based on modeling data to be determined as attaining the NAAQS, additional dispersion modeling may be required. The SO<sub>2</sub> Modeling TAD states that for the purposes of modeling to characterize air quality for use in SO<sub>2</sub> designations the EPA recommends using a minimum of the most recent three years of actual emissions data and concurrent meteorological data to allow the modeling to simulate what a monitor would observe. Additionally, the SO<sub>2</sub> Modeling TAD indicates that it is acceptable to use allowable emission rates instead of actual emission rates. Although past actual emissions could have been higher than those under the most recent allowable rate, the SO<sub>2</sub> Modeling TAD reflects the EPA's belief that it is reasonable to account for any lower allowable limits currently in place when determining if an area is attaining the NAAQS. In addition, the SO<sub>2</sub> Modeling TAD indicates that, where an allowable emissions limit has been lowered during the relevant three-year period (such as through the implementation of emissions controls), the air agency may rely on the new limit in demonstrating that the modeled limit assures attainment. The EPA believes this kind of analysis is appropriate for both

designations and clean data determinations, both of which use the analysis to determine whether the area is currently meeting the NAAQS.

For areas designated based on air quality modeling alone and where the source determined to be the primary cause of the violation has been permanently shut down, a more streamlined analysis may be appropriate. In this case, the relevant allowable emissions limit has been lowered to zero. The EPA believes that the permanent cessation of SO<sub>2</sub> emissions from primary sources may be sufficient to determine that the area is attaining the NAAQS, if available monitoring, emissions and modeling data for the area also support the finding of attainment. As discussed elsewhere in this document, the Anderson and Freestone Counties and the Titus County nonattainment areas in Texas were designated based on available modeling data that characterized the area around the Big Brown and Monticello facilities using 2013- 2015 emissions; these facilities have since been permanently shut down.

**D. What Information Did Texas Provide That Demonstrates That the Area Attained the NAAQS?**

TCEQ provided information related to primary sources of SO<sub>2</sub>, primary source shutdowns, and recent monitoring data. As noted by Texas, the Vistra Energy Power Plants Big Brown and Monticello were the only significant SO<sub>2</sub> emission sources in the nonattainment areas. Texas also noted the resulting decrease of ambient SO<sub>2</sub> concentrations after the shutdowns.

*i. Primary Source Shutdowns.*

As discussed above, for the SO<sub>2</sub> designations in the two Texas areas addressed in this action, the EPA relied on modeling that demonstrated that the Big Brown and Monticello plants were the key contributors to the modeled 2010 SO<sub>2</sub> NAAQS violations. Thus, the key factor in our proposed determination that the two areas are attaining the 2010 SO<sub>2</sub> standard is the retirement of the two Vistra Energy facilities.

Regarding the Anderson and Freestone Counties area, Vistra Energy permanently retired the Big Brown coal-fired steam electric generating Units 1 and 2 on February 12, 2018. Vistra Energy filed to void the Big Brown Title V permit, FOP 065, on May 24, 2018 and it was voided by TCEQ on August 29, 2018. A letter was submitted by Vistra Energy to TCEQ to void Big Brown's individual NSR permits (17891, 18744, 45420, 53205, 54810, 56445, 56447, 83646, 83647, 85296, 94619, 95214, 96276, 99047, 99050, 106862, 108990, 112207, and 148918 ). On March 29, 2018, TCEQ cancelled all new source review authorizations for Big Brown Units 1 and 2 and certain other facilities, as requested by Vistra Energy.<sup>16</sup> The remaining permits (17891, 18744, 56447, 106862, and 112207) are material handling permits maintained while closure activities are completed, such as coal piles, silos, and conveyors.

Regarding the Titus County area, Vistra Energy permanently retired the Monticello coal-fired steam electric generating Units 1, 2, and 3 on December 31, 2017. Vistra Energy filed to void the Monticello Title V permit, FOP 64, on May 23, 2018 and it was voided by TCEQ on August 3, 2018. A letter was submitted by Vistra Energy to TCEQ to void individual NSR permits (2401, 26740, 45432, 54808, 56384, 71238, 85294, 95215, 104897, 105738, 146220, 83645, and 83640) on February 9, 2018. On February 14, 2018, TCEQ cancelled all new source review authorizations for Monticello Units 1, 2, and 3 and certain other facilities, as requested by Vistra Energy.<sup>17, 18</sup> The remaining permits (146278, 2399, 140265, 137864, 56387, 54408, and

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<sup>16</sup> See docket item number EPA-HQ-OAR-2014-0464-0455 for a list of Big Brown's voided NSR permits. Big Brown's voided operating permit is also located in Docket EPA-HQ-OAR-2014-0464.

<sup>17</sup> For Monticello, see docket item number EPA-HQ-OAR-2014-0464-0456 for a list of voided NSR permits, and docket item number EPA-HQ-OAR-2014-0464-0457 for the voided operating permit.

<sup>18</sup> Any remaining NSR or material handling permits for Big Brown and Monticello will only be maintained while the facilities complete closure activities related to coal piles, silos, conveyors, and other shutdown tasks

104210) are material handling permits maintained while closure activities are completed, such as coal piles, silos, and conveyors.

*ii. Monitoring Data*

Texas provided recent monitoring data from the Fairfield FM 2570 Ward Ranch monitor, located approximately three miles southwest of the Big Brown plant, and from the Cookville FM 4855 monitor, located approximately 12 miles to the east of the Monticello plant and source-oriented to the still-operational Welsh power plant. The air quality data from these two monitors demonstrate a decrease in ambient SO<sub>2</sub> concentrations (which Texas stated in their request is a result of the shutdowns of the Big Brown and Monticello plants) supporting EPA's proposed determination that these areas will continue to attain the SO<sub>2</sub> NAAQS.

In its 2017 annual monitoring network plan, Texas proposed SO<sub>2</sub> monitoring sites in the Freestone/Anderson Counties and Titus County areas to assess air quality in the new SO<sub>2</sub> nonattainment areas involving Vistra Energy sources. Texas referred to the 2016 Sierra Club modeling analysis, among other information, to inform their proposed siting of the new monitors.<sup>19</sup> The EPA approved the two monitoring sites.<sup>20</sup>

Freestone/Anderson Counties Monitor Data

Texas sited and began operating a monitor in the area of the Big Brown power plant (within the Freestone/Anderson Counties nonattainment area) on October 30, 2017. Though the Big Brown power plant shut down in February 2018, Texas continues to operate the monitor.

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<sup>19</sup> 2017 ANP, available in the docket for the action and at: [https://www.tceq.texas.gov/assets/public/compliance/monops/air/annual\\_review/historical/2017-AMNP.pdf](https://www.tceq.texas.gov/assets/public/compliance/monops/air/annual_review/historical/2017-AMNP.pdf).

<sup>20</sup> EPA's approval of 2017 ANP, available in the docket for the action and at: [https://www.tceq.texas.gov/assets/public/compliance/monops/air/annual\\_review/historical/EPA2017AMNP.pdf](https://www.tceq.texas.gov/assets/public/compliance/monops/air/annual_review/historical/EPA2017AMNP.pdf).

EPA requires three calendar years of complete, quality assured, certified monitoring data to determine a design value, the measure of an area's air quality defined statistically by the form of the standard. For the 2010 one-hour SO<sub>2</sub> standard, the design value is the three-year average of the 4<sup>th</sup>-high annual daily maximum 1-hour average concentrations, representing the 99<sup>th</sup> percentile of annual daily maximum hourly average concentrations. A three-year period is used to smooth out variability in concentrations from year to year due to changes in source emission rates or to meteorological effects on dispersion. Texas stated that the monitor has a preliminary design value of 41 ppb based on the 99<sup>th</sup> percentile concentrations for 2017-2019, compared to the standard of 75 ppb. We note that while this calculated design value is invalid due to insufficient information for 2017, the data can be used as part of a weight of evidence analysis to support a determination of clean data. See the section below for EPA's analysis of the available monitor data.

#### Titus County Monitor Data

For the Titus County nonattainment area, Texas did not install a monitor planned near the Monticello power plant once the retirement of the facility was announced for 2017. However, the TCEQ provided monitoring data from the Welsh monitor, (the Cookville FM 4855 monitor) also located in Titus county, approximately 16 km to the east of the nonattainment area surrounding the Monticello Power Plant. Unlike the Big Brown Monitor, the Welsh Monitor has 3 years of complete, certified monitoring data from the period of 2017-2019, as it began operating in January 2017. The Welsh monitor was sited by Texas to characterize the SO<sub>2</sub> concentrations from the Welsh Power Plant.

The monitor at Welsh began reporting data to the EPA's Air Quality System (AQS) on January 1, 2017. The 2017-2019 design value for the most recent three years of complete, quality

assured, and certified ambient air monitoring data is 28 ppb, 37% of the standard. This represents an upper limit for the estimated design value for the Titus County nonattainment area since the Welsh monitor includes the impacts from the nearby Welsh Power Plant. Concentrations in the nonattainment area, further from the Welsh plant, would be expected to be lower since there are no other large sources nearby. See the section below for EPA's analysis of the Welsh Monitor data as an indicator of air quality in the Titus nonattainment area.

#### **E. What is the EPA's Rationale for Proposing this Action?**

The EPA is proposing to issue a clean data determination for the Anderson and Freestone Counties and the Titus County nonattainment areas based on the shutdown of the sources in the nonattainment areas, and as supported by monitoring data from within or near to the nonattainment areas and an evaluation of previous modeling. A detailed analysis of the monitoring data is presented below. In addition, we consider below available modeling data and more recent emission inventory data for the areas as further support for our proposed determination, consistent with our Clean Data Policy, that the nonattainment areas are attaining the 2010 SO<sub>2</sub> NAAQS.

### **III. What is the EPA's Analysis?**

#### **A. Modeling Data and Supplemental 2016-2019 Emissions Information Evaluation**

In 2016, Sierra Club and Vistra Energy submitted modeling data for the then most recent three years (2013–2015). This modeling provided the basis for the two nonattainment designations as discussed earlier.

In the 2016 designation action, EPA found that the Sierra Club's modeled source inventory was created in accordance with the 2014 SO<sub>2</sub> Nonattainment Area Guidance and the 2016 SO<sub>2</sub> Modeling TAD. Our analysis of the maximum impacts around Big Brown and around Monticello

found that Big Brown and Monticello were responsible for almost 100% of the impacts on the maximum ambient concentration, and thus, it was appropriate for these sources to be the only sources explicitly modeled. EPA’s boundaries for the nonattainment area encompassed the area shown to be in violation of the standard and the only sources within the boundaries of the nonattainment areas were the principal sources that contributed to the violation in each area, i.e. Big Brown and Monticello.

We have evaluated this modeling to determine if there is any possibility the area would still be in nonattainment after the plant shutdowns. EPA also reviewed 2016–2019 emissions data from the Clean Air Markets Database (CAMD) and compared those emissions to the assumptions made in the 2013–2015 modeling demonstration. As shown in Table 1, beginning in the second quarter of 2018 both plants’ emissions are omitted in CAMD, indicating no SO<sub>2</sub> emissions due to the facility shutdowns. Overall, during the modeled period 2013-2015 Big Brown emitted 169,791 tons and Monticello emitted 63,230 tons of SO<sub>2</sub>. In the most recent three-year period, 2017-2019, they emitted 54,291 and 29,410 tons respectively, less than ½ the average emission rates modeled. More importantly, both facilities no longer emit any SO<sub>2</sub>.

**Table 1 - Quarterly Emissions from Big Brown and Monticello for 2013 – 2019.**

<b>Quarter</b>	<b>Big Brown SO<sub>2</sub> Emissions (tons)</b>	<b>Monticello SO<sub>2</sub> Emissions (tons)</b>
2013 Q1	16,179	2,131
2013 Q2	14,603	7,358
2013 Q3	16,817	12,130
2013 Q4	14,895	2,778
2014 Q1	12,792	5,607
2014 Q2	13,119	3,683
2014 Q3	19,477	11,147
2014 Q4	12,072	2
2015 Q1	12,430	0
2015 Q2	11,677	4,205

2015 Q3	12,994	8,760
2015 Q4	12,737	5,430
2016 Q1	9,632	2,622
2016 Q2	7,369	3,853
2016 Q3	14,556	11,191
2016 Q4	10,913	7,293
2017 Q1	9,904	3,463
2017 Q2	10,244	8,558
2017 Q3	13,203	8,358
2017 Q4	14,282	9,030
2018 Q1	6,659	0
2018 Q2	0	0
2018 Q3	0	0
2018 Q4	0	0
2019 Q1	0	0
2019 Q2	0	0
2019 Q3	0	0
2019 Q4	0	0

The only emissions explicitly modeled were those from Big Brown and Monticello. The contributions from all other sources were represented in the model by an estimate of the background concentration. This is a technique in modeling to address smaller or more distant source contributions by examining monitoring data thought to be representative. These contributions were estimated to be small, 2 ppb for both areas. Review of 2017 National Emission Inventory data shows one additional SO<sub>2</sub> emission source, Freestone Energy Center, within the Freestone/Anderson nonattainment area with total annual SO<sub>2</sub> emissions of only 11.7 tons. There are no other SO<sub>2</sub> emission sources in the Titus County nonattainment area.<sup>21</sup>

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The overall modeled concentrations at a receptor were computed by Equation 1.

**Equation 1. Equation representing the determination of total modeled total concentration at a receptor location.**

*Total Concentration = Concentration from Vistra Energy Source + Concentration from All Other Sources (background estimate 2 ppb)*

Because the Sierra Club sufficiently considered all significant sources of SO<sub>2</sub> emissions for inclusion in the modeling demonstration, and these sources now have zero emissions, we do not believe that new modeling is required to determine attainment of the standard. Based on Equation 1, because the emissions from the Vistra Energy Sources are zero and their modeled concentrations would also be zero, the total concentration within the nonattainment area would be modeled as equal to the contribution from all other sources, or background. The modeled design value, in the absence of emissions from the Vistra Energy sources, if remodeled would then be equal to the concentrations from all other sources as represented by the background concentration of 2 ppb.

**B. Ambient Air Quality Monitoring Data Evaluation**

According to the 2014 SO<sub>2</sub> Nonattainment Area Guidance, to support a clean data determination based on monitoring data alone, the state needs to demonstrate that the area is meeting the standard based on three consecutive calendar years of complete and quality-assured air quality monitoring data (consistent with 40 CFR part 58 requirements). Neither nonattainment area contains a monitor with three complete years of monitoring data, but we

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believe that the available monitoring data from the Big Brown and Welsh monitors do provide corroborating evidence that the source shutdowns have resulted in attainment. To further support our proposed determination, the EPA performed a detailed analysis of the SO<sub>2</sub> concentrations monitored before and after the shutdowns.

Data from the Big Brown monitor demonstrates a marked improvement in air quality in the nonattainment area due to the permanent retirement of the source as shown in Table 2. During the initial 107-day period from the start of monitoring on October 31, 2017 to the shutdown of Big Brown on February 14, 2018, the 99<sup>th</sup> percentile concentration (the 1<sup>st</sup> high value for this shorter-than-one-year period) was 77.5 ppb, slightly above the standard. Post-shutdown, 321 days were measured during 2018; during this period the 99<sup>th</sup> percentile concentration (the 3<sup>rd</sup> high value) was 14 ppb, 19% of the standard. The 99<sup>th</sup> percentile concentration for 2019 (the 4<sup>th</sup> high value) is 5.8 ppb, 8% of the standard. Preliminary monitoring data for the first quarter of 2020 gives a 99<sup>th</sup> percentile (the first-high value) of 7.6 ppb. The extremely low 99<sup>th</sup> percentile concentrations post-shutdown indicate that the monitored 99<sup>th</sup> percentile concentrations in the Freestone and Anderson County nonattainment area are now, and will continue to be, well below the NAAQS.

As discussed previously, the Welsh Monitor provides a conservative estimate of possible concentrations in the Titus nonattainment area. Its design value is 28.0 ppb, in attainment of the standard, and supports the EPA's proposed determination that concentrations in the Titus County nonattainment area would also be in attainment. The shutdown of Monticello also reduced concentrations at the Welsh monitor when winds blew from the direction of Monticello (231°-321°). In 2017, prior to the shutdown, the maximum concentration from the direction of

Monticello was 112.7 ppb. After the shutdown the maximum concentrations from that direction in 2018 and 2019 were 6.8 ppb and 6 ppb respectively.

Based on our analysis, the monitoring data from the Big Brown and Welsh DRR Monitors, before and after the major source shutdowns, support our proposed determination that both areas are now in attainment.

**TABLE 2—99TH PERCENTILE 1-HOUR AVERAGE IN PARTS PER BILLION (PPB)  
AT THE Welsh and Big Brown MONITORS**

**[2017-2019]**

Monitor	Site name	2017	2018	2019	Average
48-449-1078	Welsh	33.4	20.2	30.5	28 <sup>1</sup>
48-161-1084	Big Brown	77.5 <sup>2</sup>	39.4	5.8	21.6 <sup>3</sup>

1. The 3-year average of the yearly 4<sup>th</sup> high of the complete and certified data from the Welsh monitor represents the design value for the monitor.
2. Includes only data beginning 10/30/2017
3. Average is weighted by number of days included for each year

**C. EPA’s Proposed Clean Data Determination**

The EPA acknowledges the permanent shut down of the Vistra Energy Big Brown and Monticello power plants and recognizes the corresponding relationship between the decrease in concentrations of SO<sub>2</sub> in the nonattainment areas and the cessation of emissions from the Vistra Power Plants. We have examined available monitoring and modeling data and propose to find that air quality in the nonattainment areas are now attaining the 1-hour SO<sub>2</sub> standard.

**IV. What Would Be the Effects of This Action, If Promulgated?**

If this proposed determination is made final, the requirements for the state to submit an attainment demonstration, a reasonable further progress plan, contingency measures, and other planning SIP revisions related to attainment of the 2010 1-hour primary SO<sub>2</sub> NAAQS such as

reasonably available control measures and reasonably available control technology would be suspended until such time, if any, that the EPA subsequently determines, after notice-and-comment rulemaking in the Federal Register, that either area has violated the 2010 1-hour primary SO<sub>2</sub> NAAQS. If this were to occur, the basis for the suspension of the specific SIP requirements would no longer exist, and the state would thereafter have to address the pertinent requirements. If finalized, a determination of attainment would not shield the area from other required actions, such as provisions to address pollution transport, which could require emission reductions at sources or other types of emission activities contributing significantly to nonattainment in other areas or states, or interfering with maintenance in those areas. The EPA has the authority to require emissions reductions as necessary and appropriate to deal with transported air pollution situations. See CAA sections 110(a)(2)(D), 110(a)(2)(A), and 126.

If, after considering any comments received on this proposal, the EPA finalizes a clean data determination for these areas, the state would still be subject to nonattainment area requirements, including nonattainment new source review and emission inventory requirements, until the area is redesignated to attainment.

This proposed clean data determination is limited to a determination that the areas are attaining the 2010 1-hour primary SO<sub>2</sub> NAAQS as evidenced by the state's monitoring data and the Sierra Club's modeling analysis; this proposed action, if finalized, would not constitute a redesignation to attainment under section 107(d)(3) of the CAA. The designation status of the nonattainment areas will remain nonattainment for the 2010 1-hour primary SO<sub>2</sub> NAAQS until such time as the state submits approvable redesignation requests and maintenance plans, and the EPA takes final rulemaking action to determine that such submissions meet the CAA requirements for redesignation to attainment.

## V. Statutory and Executive Order Reviews

This action proposes to make a determination based on air quality monitoring data and modeling and would, if finalized, result in the suspension of certain Federal requirements and would not impose any additional requirements. For that reason, this proposed action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Is not an Executive Order 13771 (82 FR 9339, February 2, 2017) regulatory action because this action is not significant under Executive Order 12866.
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);

- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide the EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this proposed action does not apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65FR 67249, November 9, 2000).

#### **List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference, Sulfur dioxide, Attainment determination.

**Authority:** 42 U.S.C. 7401 *et seq.*

Dated: September 17, 2020.

**Kenley McQueen,**

*Regional Administrator, Region 6.*

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