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## Re: Sierra Club Comments Regarding EPA Responses to Certain State Designation Recommendations for the 2010 Sulfur Dioxide Primary National Ambient Air Quality Standard: Notice of Availability and Public Comment Period, 88 Fed. Reg. 51,694 (Aug. 21, 2020), EPA Docket No. EPA-HQ-OAR-2020-0037; FRL-10013-82-OAR.

On behalf of its more than 28,730 members in Texas, Sierra Club respectfully submits the following comments regarding the Environmental Protection Agency's ("EPA") proposed Responses to Certain State Designation Recommendations for the 2010 Sulfur Dioxide Primary National Ambient Air Quality Standard: Notice of Availability and Public Comment Period, 88 Fed. Reg. 51,694 (Aug. 21, 2020), EPA Docket No. EPA–HQ–OAR–2020–0037; FRL–10013–82–OAR ("Round 4 Area Designations"). We incorporate by reference and are attaching two expert reports and supporting air quality modeling files confirming that emissions from the Harrington Station Power Plant in Potter County Texas, and the H.W. Pirkey Power Plant in Harrison County, Texas, are causing or contributing to violations of the 2010 National Ambient Air Quality Standard ("NAAQS") for sulfur dioxide ("SO<sub>2</sub>"), and must therefore be designated as "nonattainment" under the Clean Air Act, 42 U.S.C. § 7407(d)(1)(A)(i) and EPA's regulations and guidance implementing the 2010 SO<sub>2</sub> NAAQS.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> See Ex. 1, Harrington Station Power Plant, Amarillo, Texas, Evaluation of Compliance with the 1-hour NAAQS for SO<sub>2</sub>, September 9, 2020, conducted by Steven Klafka, P.E., BCEE Wingra Engineering, S.C., Madison, Wisconsin; Ex. 2, Pirkey Power Plant and Martin Lake Steam Electric Station, Harrison and Tatum Counties, Texas Evaluation of Compliance with the 1-hour NAAQS for SO2, September 18, 2020, conducted by Steven Klafka, P.E., BCEE Wingra Engineering, S.C., Madison, Wisconsin; see also Ex. 1, Harrington TX - Supporting AERMET Files - AMA2018dry; Ex. 1C, Harrington TX - Supporting AERMET Files - AMA2018dry; Ex. 1C, Harrington TX - Supporting AERMET Files - AMA2017wet; Ex. 1D, Harrington TX - Supporting AERMOD Files - HAsx1719e; Ex.

#### **BACKGROUND**

#### A. The Sulfur Dioxide NAAQS and Human Health

Exposure to  $SO_2$ , for even short time periods, such as five minutes, can have significant human health impacts, including the aggravation of asthma attacks and cardiovascular and respiratory failure, leading to increased hospitalizations and premature death.<sup>2</sup> Children, the elderly, and adults with asthma are particularly at risk. 75 Fed. Reg. 35,520, 35, 525-26 (June 22, 2010) ("2010 SO<sub>2</sub> NAAQS"). To address these risks, EPA revised the primary, or health-based, NAAQS for SO<sub>2</sub> more than a decade ago. As EPA has long determined, SO<sub>2</sub> "cause[s] or contribute[s] to air pollution which may . . . endanger public health and welfare." *See id.* at 35,521 (quoting 42 U.S.C. § 7408(a)(1)(A)). The 2010 standard establishes a maximum, 75 parts per billion ("ppb") SO<sub>2</sub> concentration EPA deems to be the level "requisite to protect the public health." *Id.* at 35,521 (citation omitted).<sup>3</sup>

Under the now decade-old standard, EPA estimates that between 2,300 and 5,900 premature deaths and 54,000 asthma attacks will be prevented each year.<sup>4</sup> These reductions in adverse health effects are expected to save up to \$36 billion dollars in avoided public health costs and lost productivity. 75 Fed. Reg. at 35,588. Sulfur dioxide pollution is not only harmful to human health by itself, but it also contributes to the atmospheric formation of fine particulate matter, which can penetrate deep into the lungs and cause a host of health problems, including aggravated asthma, chronic bronchitis, and premature death. 78 Fed. Reg. 3086, 3103, 3105-06 (Jan. 15, 2013). Indeed, SO<sub>2</sub> emissions from a handful of Texas power plants have been shown to contribute to premature death, asthma events, tens of thousands of lost work and school days, and billions of dollars in public health costs *each year* across the central region states.<sup>5</sup>

https://www3.epa.gov/ttnecas1/regdata/RIAs/fso2ria100602full.pdf.

<sup>5</sup> Report of Dr. George Thurston, Docket ID No. EPA-R06-OAR-2016-0611 (May 4, 2017) (attached as Ex. 3).

<sup>2</sup>A, AECOM SO2 Characterization Approach - Martin Lake\_31mar16.pdf; Ex. 2B, Martin Lake – Pirkey AERMOD Files; Ex. 2C: Martin Lake – Pirkey AERMET Files.

<sup>&</sup>lt;sup>2</sup> See Primary National Ambient Air Quality Standard for Sulfur Dioxide, 75 Fed. Reg. 35,520, 35,525 (June 22, 2010) ("2010 SO<sub>2</sub> NAAQS").

<sup>&</sup>lt;sup>3</sup> The 2010 SO<sub>2</sub> NAAQS replaces a standard first set in 1971 and is based on the 3-year average of the 99<sup>th</sup> percentile of the yearly distribution of 1-hour daily maximum SO<sub>2</sub> concentrations. 75 Fed. Reg. at 35,521-22. Under the 1971 standard, EPA set the SO<sub>2</sub> NAAQS at 0.14 parts per million ("ppm") (365  $\mu$ g/m<sup>3</sup>) averaged over a 24-hour period, not to be exceeded more than once per year, and 0.030 ppm (80  $\mu$ g/m<sup>3</sup>) annual arithmetic mean. 36 Fed. Reg. at 8187. EPA revised the standard in light of epidemiological and controlled human exposure studies establishing a causal relationship between respiratory morbidity and short-term (5-minutes to 24-hours) exposure to SO<sub>2</sub>. 75 Fed. Reg. at 35,524-29.

<sup>&</sup>lt;sup>4</sup> EPA, Final Regulatory Impact Analysis (RIA) for the SO<sub>2</sub> National Ambient Air Quality Standards (NAAQS) at 5-35, Table 5.14 (June 2010),

#### B. Uncontrolled Coal-Burning Power Plants Are the Primary Source of SO<sub>2</sub> Pollution

Nearly all SO<sub>2</sub> pollution in the United States comes from a handful of very large coal-fired power plants.<sup>6</sup> In fact, according to the National Emissions Inventory the year following EPA's issuance of the 2010 NAAQS, 91% of all U.S. SO<sub>2</sub> emissions come from coal-fired sources—at the time, those sources were responsible for 5.2 million of the 6.4 million total tons of SO<sub>2</sub> emitted, or about 82%.

Although there are now fewer coal-fired power plants than 2011, Texas is still home to many of the largest emitters of sulfur dioxide pollution in the country. Indeed, several of the coal plants implicated in EPA's proposed designations—the Martin Lake Steam Electric Station, H.W. Pirkey Power Plant, and Harrington Station, in particular—routinely rank among the largest SO<sub>2</sub> polluters in the state and cause or contribute to modeled and monitored violations of the NAAQS.<sup>7</sup>

That is not because these three power plants are the largest in terms of generating capacity, but because they all lack the modern pollution controls commonly used in the industry.<sup>8</sup> In 2018, for example, Martin Lake emitted more SO<sub>2</sub> than any other source in the country; and the monitor at the power plant will have a minimum 2018-2020 design value of 97.1 ppb. As discussed in more detail below, the nearby Pirkey Power Plant contributes significantly to those monitored violations. Meanwhile, EPA-certified monitoring data for 2017-2019 demonstrates conclusively that Harrington Station is also causing violations of the 2010 SO<sub>2</sub> NAAQS.<sup>9</sup> In fact, the Harrington design value is 114 ppb—more than one and half times the health-based NAAQS safeguard. Despite significant evidence that these three plants are each causing or contributing to violations of the health-based NAAQS, Texas and EPA have failed, for more than a decade, to protect the public from those impacts.

#### C. EPA's Implementation of the NAAQS

EPA's promulgation of the revised one-hour SO<sub>2</sub> NAAQS triggered mandatory statutory timetables for EPA to "designate" all areas of the country that fail to comply with the standard. Within one year of EPA's issuance of the standard, each state was required to submit to EPA a list of recommended designations for all areas (or portions thereof) in the state as attainment, nonattainment, or unclassifiable. Areas that comply are designated "attainment." 42 U.S.C. §

<sup>&</sup>lt;sup>6</sup> In fact, 91% of all U.S. SO<sub>2</sub> emissions come from coal-fired electric power plants. Sierra Club Comments, Docket ID No. EPA-HQ-OAR-2014-0464-0420, at 2 (Mar. 31, 2016) (citing U.S. EPA, 2011 National Emissions Inventory (NEI) Data, <u>https://www.epa.gov/air-emissions-</u> <u>inventories/2011-national-emissions-inventory-nei-data</u>). At the time EPA promulgated its area designations, 2011 was the most recent year for which complete National Emission Inventory data was available.

<sup>&</sup>lt;sup>7</sup> See <u>https://ampd.epa.gov/ampd/</u> (select Reports, and Run Top Emitter Reports for SO<sub>2</sub>).

<sup>&</sup>lt;sup>8</sup> See EPA, Technical Support Document for the Cost of Controls Calculations for the Texas Regional Haze Federal Implementation Plan (Cost TSD), Docket ID No. EPA-R06-OAR-2014-0754-0008, at 1 (Nov. 2014) (13 units at 6 large facilities in Texas do not have scrubbers to control SO<sub>2</sub> pollution).

<sup>&</sup>lt;sup>9</sup> See Ex. 4, EPA, Sulfur Dioxide Air Quality Design Values, 2019, https://www.epa.gov/sites/production/files/2020-

<sup>05/</sup>so2\_designvalues\_2017\_2019\_final\_05\_05\_20.xlsx.

7407(d)(1)(A)(i). Areas that do not comply must be designated "nonattainment." *Id.* § 7407(d)(1)(A)(i). Areas that "cannot be classified *on the basis of available information*" as complying or not complying with the standard are designated "unclassifiable." *Id.* § 7407(d)(1)(A)(i) (iii) (emphasis added).

As an initial step, states are charged with submitting initial designation recommendations for areas within their jurisdiction, and then EPA may make any modifications it "deems necessary." *Id.* § 7407(d)(1)(A), (B)(ii). EPA must then issue final designations for all areas in each state "as expeditiously as practicable, but in no case later than 2 years from the date of promulgation of the new or revised [NAAQS]." *Id.* § 7407(d)(1)(B)(i). Thus, EPA had a statutory obligation to issue designations for all areas of every state within three years of issuing the revised 2010 NAAQS for SO<sub>2</sub>—or by 2013.

In August 2013, EPA issued nonattainment designations for only 29 areas in 16 states—the "Round 1" designations—based on nearby monitor readings exceeding the 2010 SO<sub>2</sub> NAAQS. *See* Air Quality Designations for the 2010 Sulfur Dioxide (SO<sub>2</sub>) Primary National Ambient Air Quality Standard, 78 Fed. Reg. 47,191 (Aug. 5, 2013) (effective Oct. 4, 2013). Because EPA failed to timely issue final designations for the remainder of the country, Sierra Club and other public interest organizations filed a citizen suit to compel the agency to fulfill its statutory duty.<sup>10</sup>

As a result of a consent decree entered in that case, EPA is required to issue final designations for the remainder of the country according to a specific schedule. In "Round 2," EPA was required to designate areas with many of the largest sources of SO<sub>2</sub> by July 2, 2016. Consent Decree ¶ 1, *Sierra Club v. McCarthy*, No. 3:13-cv-3953-SI (N.D. Cal. Mar. 2, 2015), ECF No. 163, EPA-HQ-OAR-2014-0464-0202.<sup>11</sup> EPA was required to designate remaining areas of the country where states decided *not* to install monitoring networks by December 31, 2017 ("Round 3"); and for all remaining areas where states decided to characterize air quality with monitoring data by December 31, 2020 ("Round 4"). *Id.* ¶¶ 2-3. Whether states decide to characterize air quality using monitoring or modeling, however, the agency must still consider all available information in making

<sup>&</sup>lt;sup>10</sup> EPA is required to make its designations "as expeditiously as practicable, but in no case later than 2 years from the date of promulgation of the new or revised [NAAQS]"—unless EPA "has insufficient information to promulgate the designations", in which case EPA may have up to one additional year. *Id.* § 7407(d)(1)(B)(i). In the case of the 2010 SO<sub>2</sub> NAAQS, federal law mandated designations no later than 2013.

<sup>&</sup>lt;sup>11</sup> EPA was required to promulgate designations for undesignated areas, which (a) based on air quality monitoring had violated the 2010 SO<sub>2</sub> NAAQS within the preceding three calendar years, or (b) contained any stationary source that had not been announced for retirement and which had either (i) emitted more than 16,000 tons of SO<sub>2</sub> in 2012 or (ii) emitted more than 2,600 tons of SO<sub>2</sub> and had an annual average emission rate of 0.45 lbs SO<sub>2</sub>/Mmbtu or higher in 2012. Consent Decree ¶ 1.

Pursuant to agreed-upon modifications to the Consent Decree, EPA received a short extension of time by which to designate the areas surrounding the Big Brown, Martin Lake, Monticello, and Sandow power plants—until November 29, 2016. *See Sierra Club v. McCarthy*, No. 3:13-cv-3953-SI (N.D. Cal. Oct. 28, 2016), ECF No. 180.

the designation.<sup>12</sup> Indeed, it is axiomatic that EPA must base its designations on the basis of all information then available. 84 Fed. Reg. at 43,760-61; *see also* 42 U.S.C. § 7407(d)(1)(A); *Motor Vehicle Mfrs. Assn. of United States, Inc. v. State Farm Mut. Automobile Ins. Co.*, 463 U.S. 29, 43 (1983) ("The agency must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.") (quoting Burlington Truck Lines v. United States, 371 U.S. 156, 158 (1962)).

#### D. EPA's Data Requirements Rule

To facilitate the implementation of the NAAQS, on August 10, 2015, EPA finalized the Data Requirements Rule ("DRR"), which requires states to provide data to characterize air quality around many major sources of SO<sub>2</sub>.<sup>13</sup> For areas around any source that emits 2,000 tons per year (tpy) or more of SO<sub>2</sub>, states were required to notify EPA by July 1, 2016, whether they intended to: (1) characterize air quality through ambient monitoring; (2) characterize air quality through air quality modeling; or (3) whether it will be subjecting the pertinent source or sources to enforceable emission limits that will keep the source below this rule's 2,000 tpy threshold. To use monitoring to characterize air quality at a specific facility, states must take appropriate steps to identify, relocate and/or install new ambient SO<sub>2</sub> monitors that would characterize peak 1-hour SO<sub>2</sub> concentrations in areas around or impacted by identified SO<sub>2</sub> sources.<sup>14</sup>

Although EPA expected its Round 3 and 4 designations "to be informed and benefited by any additional information that is timely obtained pursuant to the DRR,"<sup>15</sup> the rule "requires air quality

http://www.epa.gov/airquality/sulfurdioxide/pdfs/SO2MonitoringTAD.pdf.<sup>15</sup> 80 Fed. Reg. at 51,056.

<sup>&</sup>lt;sup>12</sup> 42 U.S.C. § 7407(d)(1)(A)(iii); *see also* Memorandum from Stephen D. Page, Director of EPA Office of Air Quality Planning and Standards, at 2, 4-5 (hereinafter, 2015 Page Memo), *available at* <u>https://www.epa.gov/sites/production/files/201604/documents/20150320so2</u>

<sup>&</sup>lt;u>designations.pdf</u> ("In the time since states submitted their original designations recommendations in 2011, they may have obtained additional monitoring and/or modeling information that may be relevant for future designations.... [and] we will consider such information.").

<sup>&</sup>lt;sup>13</sup> Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide (SO2) Primary National Ambient Air Quality Standard (NAAQS), 80 Fed. Reg. 51,052 (Aug. 21, 2015) (to be codified at 40 C.F.R. § 51, Subpart BB).

<sup>&</sup>lt;sup>14</sup> See generally 80 Fed. Reg. at 51,085-88. In the Data Requirements Rule's companion Technical Assistance Document ("TAD"), EPA offers the following guidance on how air agencies might satisfy the  $SO_2$  data requirements in order to determine compliance with the NAAQS:

The EPA expects monitoring conducted in response to [an anticipated] future data requirements rule to be targeted, source-oriented monitoring, for which the primary objective would be to identify peak SO2 concentrations in the ambient air that are attributable to an identified emission source or group of sources.

See SO<sub>2</sub> NAAQS Designations Source-Oriented Monitoring Technical Assistance Document, U.S. EPA Office of Air and Radiation, Office of Air Quality Planning and Standards, Air Quality Assessment Division (Dec. 2013 Draft),

characterization for areas previously designated as unclassifiable, just as it requires air quality characterization for undesignated areas."<sup>16</sup> If, for example:

the EPA has previously determined through a designation action that sufficient information has not yet been identified to support an attainment or nonattainment designation (*i.e.*, the area was initially designated as unclassifiable), then the additional information required by this rule will be used to inform possible future actions by the EPA or the state (*e.g.*, to determine whether the area is attaining or not attaining the standard, and change designation status).<sup>17</sup>

Thus, EPA and the states have a continuing obligation to collect and evaluate data to inform the designation of both undesignated areas and those areas previously designated as unclassifiable. And it making those designations, EPA must evaluate *both* monitoring and modeling data.<sup>18</sup>

### E. EPA's Five-Step Methodology for Determining Designation Boundaries

In making its area designations, EPA evaluates five factors, in addition to air quality modeling and monitoring data:

- (1) air quality data or dispersion modeling results;
- (2) emissions-related data;
- (3) meteorology;
- (4) geography and topography; and
- (5) jurisdictional boundaries, "as well as other available data"<sup>19</sup>

Regardless of whether a state has decided to characterize air quality around a specific source using monitoring or modeling, "it will also be necessary to show that sources in the area are not contributing to a violation in a nearby area."<sup>20</sup> Indeed, under the Clean Air Act, an "attainment area cannot contain any area that violates the NAAQS or contributes to a violation of the NAAQS in a nearby area."<sup>21</sup>

EPA's final air quality designations govern the stringency of the CAA state implementation plans ("SIPs") required from each state to ensure achievement of the NAAQS. 42 U.S.C. § 7407(a). If an area is designated "nonattainment," the state must develop and submit, within 18 months of the effective date of that designation, a SIP that provides for the attainment of the NAAQS "as expeditiously as practicable," but no later than 5 years from the date of the nonattainment designation. *Id.* §§ 7502, 7503, 7514, 7514a. By contrast, in areas that are designated unclassifiable or attainment, states are required only to prevent further significant deterioration of air quality. *Id.* § 7471.

<sup>&</sup>lt;sup>16</sup> *Id.* at 51,084

<sup>&</sup>lt;sup>17</sup> Id.

<sup>&</sup>lt;sup>18</sup> See, e.g., 2015 Page Memo at 2, 4-5 (recognizing modeling as "an appropriate tool to indicate a violation of the  $SO_2$  NAAQS" and anticipating "that in many areas the most reliable information for informing these designations will be based on source modeling")

 $<sup>^{19}</sup>$  *Id.* at 6.

 $<sup>^{20}</sup>$  *Id.* at 2.

<sup>&</sup>lt;sup>21</sup> *Id.* at 6 (citing 42 U.S.C. § 7407(d)(l)(A)(i).

# F. Air Dispersion Modeling Is an Appropriate, Longstanding, and Court-Validated Tool for Use in Promulgating NAAQS Area Designations.

In issuing the 2010 SO<sub>2</sub> NAAQS, EPA recognized dispersion modeling as a "technically appropriate, efficient, and readily available method for assessing short-term ambient SO<sub>2</sub> concentrations in areas with large point sources." 75 Fed. Reg. 35,520, 35,551 (June 22, 2010). As EPA explained, "[d]ue to the generally localized impacts of SO<sub>2</sub>, [the Agency has] not historically considered monitoring alone to be an adequate, nor the most appropriate, tool to identify all maximum concentrations of SO<sub>2</sub>." *Id.*; *cf. Catawba County v. EPA*, 571 F.3d 20, 30 (D.C. Cir. 2009) (acknowledging the inherent problem of using monitored data for criteria pollutants, namely that "a monitor only measures air quality in its immediate vicinity."). With that in mind, EPA has endorsed, supported, and relied on the use of modeling (in addition to monitoring) to implement the 2010 SO<sub>2</sub> NAAQS designation process.<sup>22</sup>

EPA's use of modeling to assess compliance with the 2010 SO<sub>2</sub> NAAQS is consistent with the Agency's historic use of such modeling for multiple NAAQS implementation purposes, including for attainment designations. As EPA explained:

Historically, we have favored dispersion modeling to support  $SO_2$  NAAQS compliance determinations for areas with sources that have the potential to cause an  $SO_2$  NAAQS violation, and we have explained that for an area to be designated as "attainment," dispersion modeling regarding such sources needs to show the absence of violations even if monitoring does not show a violation. This has been our general position throughout the history of implementation of the  $SO_2$  NAAQS program.<sup>23</sup>

<sup>&</sup>lt;sup>22</sup> See, e.g., Page Memo at 2, 4-5; EPA, Draft SO<sub>2</sub> NAAQS Designation Modeling Technical Assistance Document, Aug. 2016 (hereinafter, 2016 Modeling TAD), *available at* <u>https://www.epa.gov/sites/production/files/2016-06/documents/so2modelingtad.pdf;</u> EPA, Responses to Significant Comments on the Designation Recommendations for the 2010 SO<sub>2</sub> NAAQS – Supplement for Four Areas in Texas Not Addressed in June 30, 2016, Version Nov. 29, 2016 (hereinafter, Nov. 2016 Response to Comments), *available at* 

<sup>&</sup>lt;u>https://www.epa.gov/sites/production/files/2016-11/documents/rtc\_so2\_comments\_received\_document\_4\_tx\_sources\_final\_0.pdf</u> ("Modeling has proved to be an accurate and reliable tool for remedying the occasional weakness of  $SO_2$  monitoring, and obviously in some cases is the only tool available where there is no  $SO_2$  monitor in place to assess air quality.").

<sup>&</sup>lt;sup>23</sup> 75 Fed. Reg. at 35, 551; *see also* EPA, SO<sub>2</sub> Guideline Document, EPA-452/R-94-008 at 2-1 (Feb. 1994), *available at* <u>https://nepis.epa.gov/Exe/ZyPDF.cgi/2000H22J.PDF?Dockey=2000H22J.PDF</u> ("Attainment determinations for SO<sub>2</sub> will generally not rely on ambient monitoring data alone, but instead will be supported by an acceptable modeling analysis which quantifies that the SIP strategy is sound and that enforceable emission limits are responsible for attainment."); Memorandum from Sheldon Meyers, Director of EPA Office of Air Quality Planning and Standards, Section 107 Designation Policy Summary at 1-2 (Apr. 21, 1983) ("[A]ir quality modeling emissions data, etc., should be used to determine if the monitoring data alone will not be sufficient for areas dominated by point sources.").

EPA's use of air modeling is also court-validated. See, e.g., Mont. Sulphur & Chem. Co. v. EPA, 666 F.3d 1174, 1185 (9th Cir. 2012) (upholding EPA's reliance on predictive modeling in requiring amendments to State Implementation Plan to ensure SO<sub>2</sub> NAAQS compliance); Republic Steel Corp. v. Costle, 621 F.2d 797, 805 (6th Cir. 1980) (approving use of modeling to predict future violations and incorporating "worst-case" assumptions regarding weather and full capacity operations of pollutant sources); see also Genon Rema, LLC v. U.S. EPA, 722 F.3d 513, 526 (3rd Cir. 2013) (upholding the use of air dispersion modeling and AERMOD in particular in resolving a recent CAA section 126 petition for resolution of cross-state impacts).

#### G. EPA's Previous Texas Nonattainment Designations

In March 2016, EPA proposed its designations for those areas with the largest SO<sub>2</sub> sources. 81 Fed. Reg. 10,563 (Mar. 1, 2016). Consistent with EPA's technical guidance, Sierra Club submitted third-party modeling reports to inform EPA's evaluation of the short-term impacts of numerous large SO<sub>2</sub> sources across the country. All told, Sierra Club submitted dozens of air dispersion modeling reports for major sources across the country, including Luminant Generation Company's Big Brown, Martin Lake, and Monticello coal-burning power plants and Southwestern Public Service Company's Harrington Station Power Plant. Relevant here, on September 17, 2015, Sierra Club submitted air dispersion modeling conducted by Wingra Engineering, S.C. demonstrating that SO<sub>2</sub> emissions from the Martin Lake power plant caused violations of the 2010 SO<sub>2</sub> NAAQS, and therefore the areas surrounding the plants should be designated as nonattainment areas.<sup>24</sup>

On July 12, 2016, EPA issued its final area designations for much of Texas.<sup>25</sup> Relevant here, after review of the state's submittal and based on the lack of information, EPA concluded that the area surrounding Harrington Station "cannot be classified on the basis of available information," and designated the area as unclassifiable.<sup>26</sup>

On December 13, 2016, EPA issued its final area designations for the four areas surrounding the Big Brown, Martin Lake, Monticello, and Sandow power plants. 81 Fed. Reg. 89,870 (Dec. 13, 2016). In line with Sierra Club's March 31, 2016 modeling, EPA determined that the areas surrounding three coal-fired power plants—Big Brown in the Freestone and Anderson Counties Area, Martin Lake in the Rusk and Panola Counties Area, and Monticello in the Titus County Area—failed to meet the health-based 2010 SO<sub>2</sub> NAAQS. *Id.* at 89,873.<sup>27</sup>

#### H. EPA's Proposed Round 4 Designations

On April 21, 2020, EPA issued public notice of its proposed Round 4 area designations. Relevant here, EPA proposed to designate the H.W. Pirkey Plant, which is approximately 14 miles

<sup>&</sup>lt;sup>24</sup> Ex. 5, *Martin Lake Steam Electric Station Tatum, Texas Evaluation of Compliance with the 1-hour NAAQS for SO*<sub>2</sub>, dated September 11, 2015, conducted by Steven Klafka, P.E., BCEE Wingra Engineering, S.C., Madison, Wisconsin.

<sup>&</sup>lt;sup>25</sup> 81 Fed. Reg. 45,039 (July 12, 2016).

<sup>&</sup>lt;sup>26</sup> *Id.*; EPA Responses to Significant Comments on the Designation Recommendations for the 2010 Sulfur Dioxide Primary National Ambient Air Quality Standard (NAAQS), Docket Number EPA–HQ–OAR–2014–0464 (June 30, 2016).

<sup>&</sup>lt;sup>27</sup> EPA also determined that the fourth area, Milam County surrounding the Sandow Power Station, was "unclassifiable." 81 Fed. Reg. at 89,871.

north, northeast of Martin Lake as attainment/unclassifiable. EPA notes that Texas has chosen to characterize the area using monitoring. EPA suggests the "monitor was sited to characterize the maximum 1-hour SO2 concentrations in the area surrounding the DRR source," and the data collected at this monitor "indicates that the area has a complete, valid 2017-2019 design value that is attaining the 2010 SO2 NAAQS."<sup>28</sup> EPA's proposal does not mention Harrington Station.

#### ARGUMENT

As discussed below, there is substantial monitoring and modeling evidence demonstrating that SO<sub>2</sub> emissions from the Harrington and Pirkey power plants are causing or contributing to violations of the NAAQS, and must therefore be designated as "nonattainment" under the Clean Air Act, 42 U.S.C. § 7407(d)(1)(A)(i) and EPA's regulations and guidance implementing the 2010 SO<sub>2</sub> NAAQS.

# I. EPA MUST INCLUDE PIRKEY IN THE EXISTING MARTIN LAKE-AREA NONATTAINMENT AREA.

As noted, on December 13, 2016, EPA finalized a nonattainment designation for the area surrounding the Martin Lake power plant in Rusk County, Texas.<sup>29</sup> Although Texas challenged that rule and sought reconsideration of the designation, the rule remains effective. Moreover, repeated rounds of air quality modeling—including the September 2020 modeling supporting these comments—and Texas's own air quality monitoring demonstrate conclusively that air quality surrounding Martin Lake violates the NAAQS.<sup>30</sup> As explained below, air quality modeling demonstrates that the Pirkey power plant is contributing to those violations of the SO<sub>2</sub> NAAQS in nearby Rusk County,<sup>31</sup> and must therefore be included in a nonattainment area encompassing both Martin Lake and Pirkey. 42 U.S.C. § 7407(d)(1)(A)(i).

<sup>&</sup>lt;sup>28</sup> EPA, 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 at 22.

<sup>&</sup>lt;sup>29</sup> 81 Fed. Reg. 89,870 (Dec. 13, 2016).

<sup>&</sup>lt;sup>30</sup> Monitoring data for Martin Lake is now available from January 2018 through September 21, 2020. Although evidence indicates that the Martin Lake monitor is *not* actually sited in a location corresponding to the highest likely SO<sub>2</sub> concentrations from the plant and only 20 months of monitoring data is available for the 2017-2019 period, that data nevertheless conclusively demonstrated a minimum 2017-2019 design value of 82.03 ppb for the Martin Lake monitor—well above the NAAQS. The annual design value for the monitor was 109.1 ppb in 2018, which was the fourth-highest hourly reading for that year. In 2019, the fourth-highest hourly reading was 114.8 ppb. Although the monitor operated for only 32 days of 2017, the fourth-highest reading for that period was 22.2 ppb. Thus, the design value for 2017-2019 was 82.03 ppb. The design value for 2020 is already 67.4 ppb. Paired with the fourth-highest 2018 and 2019 values of 109.1 ppb and 114.8 ppb,<sup>30</sup> respectively, the newly-available data thus yields a minimum 2018-2020 design value of 97.1 ppb—again, well above the NAAQS of 75 ppb.

# A. Credible Evidence Demonstrates That Pirkey "Contributes" to Violations of the NAAQS at the "Nearby" Martin Lake Power Plant, and therefore Must Be Designated as Nonattainment.

EPA's proposes to designate the H.W. Pirkey Plant based on three years of monitoring data suggesting that the area immediately surrounding the plant is meeting the NAAQS. That designation is arbitrary and capricious, for several reasons.

First, as EPA explained in the final 2010 SO<sub>2</sub> NAAQS Rule, "even if monitoring does not show a violation," that absence of data is not determinative of attainment status absent modeling.<sup>32</sup> Regardless of whether a state has decided to characterize air quality around a specific source using *monitoring*, "it will also be necessary to show that sources in the area are not contributing to a violation in a nearby area."<sup>33</sup> Indeed, the Clean Air Act, 42 U.S.C. § 7407(d)(1), requires states to designate as nonattainment two types of areas: (1) those that are currently violating the NAAQS and (2) those "nearby" areas that "contribute" to an area that does not meet the NAAQS,<sup>34</sup> even though the contributing area itself may not be violating the NAAQS.<sup>35</sup> Additionally, courts have held that EPA must designate as nonattainment any area that "exacerbates" nonattainment nearby, a flexible standard that courts have recognized as central to the "very purpose" of Section 107(d) area designations.<sup>36</sup>

Here, all of the available monitoring and modeling data demonstrates conclusively that the Martin Lake power plant is causing violations of the NAAQS. As the attached modeling report demonstrates, however, the Pirkey power plant contributes to the violations of the NAAQS at Martin Lake and must therefore be included as part of a larger nonattainment area.<sup>37</sup>

First, Pirkey is a major source of SO<sub>2</sub> pollution "nearby" an existing nonattainment area. In interpreting the term "nearby" for the purposes of designating areas as nonattainment under section 107(d), EPA has historically evaluated the entire combined metropolitan statistical area within the boundary of nonattainment areas.<sup>38</sup> Here, Pirkey is in Harrison County, which is adjacent to and shares a border with Rusk County, where Martin Lake is located. The two counties are part of the

<sup>&</sup>lt;sup>32</sup> 75 Fed. Reg. at 35,551.

<sup>&</sup>lt;sup>33</sup> *Id.* at 2.

 $<sup>^{34}</sup>$  42 U.S.C. § 7407(d)(1) (requiring states to designate as nonattainment "any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standards for the pollutant").

<sup>&</sup>lt;sup>35</sup> *Id*.

<sup>&</sup>lt;sup>36</sup> See Catawba Cnty., N.C. v. EPA, 571 F.3d 20, 39 (D.C. Cir. 2009).

<sup>&</sup>lt;sup>37</sup> See generally Ex. 2.

<sup>&</sup>lt;sup>38</sup> See Miss. Comm'n on Envtl. Quality v. E.P.A., 790 F.3d 138, 152 (D.C Cir. 2015) (noting EPA's practice, in designating areas under the ozone NAAQS, to interpret nearby as being within the combined statistical area); see also Responses to Significant Comments on the State and Tribal Designation Recommendations for the 2008 Ozone National Ambient Air Quality Standards, EPA Docket No. EPA-HQ-OAR-2008-0476-0675 at 24 (Apr. 2012) [hereinafter "2008 NAAQS Designation Response to Comments"] ("EPA recommended to states that they use (and EPA indicated in guidance that it would use) Core Based Statistical Areas (CBSAs) or Combined Statistical Areas (CSAs) as a starting point or "presumptive" boundary for considering the geographic boundaries for ozone nonattainment area").

same Longview-Marshall combined metropolitan statistical area,<sup>39</sup> and Pirkey is approximately 14 miles north of Martin Lake. Thus, Pirkey is nearby Martin Lake within the meaning of 42 U.S.C. § 7407(d)(1).

Second, EPA has consistently interpreted "contribute" to mean those areas and sources that "sufficiently" contribute to nonattainment.<sup>40</sup> As noted, courts have held that EPA must designate as nonattainment any area that "exacerbates" nonattainment. *See Catawba Cnty., N.C. v. EPA*, 571 F.3d 20, 39 (D.C. Cir. 2009). Consistent with that approach, EPA has found that impacts *greater than one percent* of the applicable NAAQS are "significantly" contributing to nonattainment.<sup>41</sup>

As the attached modeling demonstrates, using 2017-2019 emissions data, SO<sub>2</sub> emissions from Pirkey routinely contribute to violations of the NAAQS at the Martin Lake monitor and the surrounding areas. Specifically, Pirkey has a peak impact of 6.7  $\mu$ g/m<sup>3</sup> at the location of the maximum impacts from both plants together—well above EPA's one percent threshold for significant contribution.<sup>42</sup> As reflected in Figure 1, *infra*, those maximum impacts occur to the south and west of the Martin Lake plant. This suggests that the Martin Lake monitor may not be in a location that captures the highest concentrations from both plants. In any event, the modeling also demonstrates that Pirkey has a peak impact of 8.2  $\mu$ g/m<sup>3</sup>—also well above EPA's one percent threshold for significant contribution—at the location of the Martin Lake monitoring station, approximately 1.9 km to the north of Martin Lake. Because Pirkey contributes up to 4.17% of the 196.2  $\mu$ g/m<sup>3</sup>NAAQS at the nearby Martin Lake monitor—more than four times EPA's contribution threshold—the agency must include Pirkey as part of a broader nonattainment area that encompasses both plants.

While EPA is not required to set a bright line test for what constitutes a "contribution" under section 107(d), the plain statutory language (*i.e.*, the omission of the modifier "significant") requires EPA to designate as non-attainment any area that has a non-negligible impact on pollution levels in a nearby non-attainment area. Indeed, courts have confirmed that any area that "exacerbates" nonattainment in a nearby area must also be designated as nonattainment.<sup>43</sup>

<sup>&</sup>lt;sup>39</sup> https://www2.census.gov/geo/maps/econ/ec2012/csa/EC2012\_330M200US346M.pdf.

<sup>&</sup>lt;sup>40</sup> *Catawba Cnty.*, 571 F.3d at 41 (upholding EPA's decision to designate sources as being in nonattainment with the NAAQS where the source is contributing to an areas with a violating monitor).

<sup>&</sup>lt;sup>41</sup> See 76 Fed. Reg. 80760 (Dec. 27, 2011) (final Cross State Air Pollution Rule adopting one percent contribution threshold under the Clean Air Act's good neighbor provision for both NOx and sulfate-based particulate matter contribution to downwind nonattainment); 75 Fed. Reg. 45210, 45232-37 (Aug. 2, 2010) (explaining application of one percent significance threshold in proposed Cross-State Air Pollution Rule); 70 Fed. Reg. at 25193 (Clean Air Interstate Rule); 63 Fed. Reg. at 57379-80 (NOx SIP Call).

<sup>&</sup>lt;sup>42</sup> See Ex. 2 at 6. The one-hour SO<sub>2</sub> NAAQS level is 75 ppb, which is equivalent to 196.2  $\mu$ g/m<sup>3</sup>. 6.7  $\mu$ g/m<sup>3</sup> is equivalent to 3.4% of the NAAQS.

<sup>&</sup>lt;sup>43</sup> *Catawba Cnty.*, 571 F.3d at 39; *see also Clean Wisconsin v. EPA*, 964 F.3d 1145, 1166 (D.C. Cir. July 10, 2020) (remanding EPA's attainment designation for Ottawa County, Michigan, under the 2015 ozone NAAQS, in part, because emissions from that county "contributed ozone in excess of than 0.7 parts per billion" (more than 1% of the NAAQS) to violating monitors).

Although courts have upheld EPA's use of a multi-factor test for determining downwind nonattainment where it "lacks a definite 'threshold' or clear line of demarcation," *Catawba Cnty*, 571 F.3d at 39, there are limits to the agency's discretion. Where, as here, EPA has established a clear numeric threshold for "significant" downwind contribution to nonattainment in analogous circumstances, the agency must provide a rational explanation for its departure from that approach. *See FCC v. Fox Television Stations*, 556 U.S. 502, 515 (2009) (when an agency departs from an interpretation, "the agency must at least 'display awareness that it *is* changing position" and "show that there are good reasons for the new policy") (emphasis in original).

Here, EPA fails to discuss, let alone evaluate, whether Pirkey contributes to nearby nonattainment. As noted, in interpreting the related "good neighbor" provisions of the Clean Air Act, 42 U.S.C. § 7410(a)(2)(D), EPA has consistently found that pollution impacts greater than one percent of the applicable NAAQS constitute a "significant" contribution to downwind nonattainment.<sup>44</sup> The Clean Air Act's good neighbor provision, like the nonattainment designation provisions at issue here, "requires EPA to seek downwind attainment of NAAQS," EPA v. EME Homer City Generation, L.P., 572 U.S. 489, 523 (2014), by prohibiting "any source or other type of emissions activity within the state from emitting any air pollutant in amounts which will . . . contribute significantly to nonattainment ..., or interfere with maintenance," of any national air quality standard. 42 U.S.C. § 7410(a)(2)(D)(i) (emphasis added). The overriding purpose of both the good neighbor provision and the designation provisions at issue here are to assure attainment and maintenance of the NAAQS throughout the country. Compare 42 U.S.C. § 7407(a), with id. § 7410(a)(1). And in upholding EPA's one percent numeric threshold in the good neighbor context, the Supreme Court observed that, in evaluating downwind contribution to nonattainment, EPA "has a statutory obligation to avoid 'under-control,' i.e., to maximize achievement of attainment downwind." EME Homer City, 572 U.S. at 523. Applying that reasoning, there is no reason that the "good neighbor" one percent threshold should not apply in the designation context.

Any other interpretation of the term "contribution" would not only be arbitrarily inconsistent with the agency's historic interpretation of analogous statutory provisions, but with the structure of the Clean Air Act. In crafting Section 107(d), Congress purposefully declined to use the modifier "significantly," which appears in the closely-related good neighbor provisions of the Act. *Compare* 42 U.S.C. § 7407(d)(1)(A)(i) (an area must be designated as nonattainment if it "contributes to" nonattainment in a "nearby" area), *with id.* § 7410(a)(2)(D)(i)(I) (state implementation plan must prohibit emissions that will "contribute *significantly* to nonattainment in … any other State") (emphasis added), *and id.* § 7426(a)(1)(B) (providing for notification of nearby states if a source is being constructed that "may *significantly* contribute" to violation of the NAAQS in such other state). Congress clearly intended for a "contribution" for purposes of Section 107(d) to mean something *less than* a "significant contribution" for the purposes of the good neighbor provision. Additionally, there is no logical reason why pollution contributions above one percent of the NAAQS are deemed

<sup>&</sup>lt;sup>44</sup> See 76 Fed. Reg. 48,208, 48,237 (Aug. 8, 2011) (final Cross State Air Pollution Rule adopting a one percent threshold for determining whether an upwind state "significantly contributes" to nonattainment); 75 Fed. Reg. 45,210, 45,232-37 (Aug. 2, 2010) (proposed Cross-State Air Pollution Rule explaining application of one percent significance threshold); 70 Fed. Reg. 25,162, 25,191-93 (May 12, 2005) (Clean Air Interstate Rule adopting a one percent threshold for determining whether an upwind state "significantly contributes" to nonattainment); 63 Fed. Reg. 57,356, 57379-80 (Oct. 27, 1998) (NOx SIP Call adopting same percentage threshold).

"significant" and must therefore be controlled for the purposes of assuring downwind attainment in the good neighbor, while the same numeric level of pollution contribution escapes control when determining whether adjacent counties should be designated as nonattainment under Section 107(d). To satisfy EPA's fundamental "statutory obligation to avoid 'under-control,' *i.e.,* to maximize achievement of attainment downwind," *EME Homer City*, 572 U.S. at 523, EPA must follow its past use of that one percent benchmark to inform its nonattainment decisions.

Including the Pirkey and Martin Lake power plant together in their own broader nonattainment area is also consistent with the agency's approach to nonattainment designations for other parts of Texas under the 2008 ozone standard. In designating Wise County, Texas as being in nonattainment with the 2008 ozone NAAQS, for example, EPA relied on source-apportionment modeling demonstrating that Wise County emissions contributed more than one percent of the ozone impacts to violating monitors in the Dallas Fort Worth area. Although Wise County did not have any regulatory monitors of its own, the D.C. Circuit upheld EPA's nonattainment designation based, in part, on modeled pollution contributions to nearby monitors violating the standard.<sup>45</sup> Given the availability of the same kind of air quality modeling for Pirkey and Martin Lake SO<sub>2</sub> emissions, the agency should follow the same approach and include the two facilities as part of a broader nonattainment area.

In sum, EPA has consistently found that pollution impacts greater than one percent of the applicable NAAQS are "significantly" contributing to nonattainment. Applying that standard, EPA must designate Pirkey in Harrison County as nonattainment (in addition to the area of Rusk County where Martin Lake is located) because credible air quality modeling (which is the only evidence in the record) demonstrates that Pirkey significantly exceeds the one-percent contribution threshold with respect to the NAAQS violations in Rusk County.<sup>46</sup>

# **B.** EPA's Five-Factor Analysis Supports Including Pirkey in the Martin Lake Nonattainment Area.

As noted, in making its area designations, EPA evaluates five factors, in addition to air quality modeling and monitoring data: (1) air quality data or dispersion modeling results; (2) emissions-related data; (3) meteorology; (4) geography and topography; and (5) jurisdictional boundaries, "as well as other available data"<sup>47</sup> As set forth in EPA's Guidance, a "nonattainment area should contain the area violating the NAAQS (e.g., the area around a violating monitor or encompassing modeled violations), as well as any nearby areas (e.g., counties or portions thereof) that contain emissions

<sup>&</sup>lt;sup>45</sup> *Miss Comm'n*, 790 F.3d at 168.

<sup>&</sup>lt;sup>46</sup> EPA must consider all available information, including credible modeling that follows EPA's guidance, like the attached Wingra Engineering, in making area designations. 84 Fed. Reg. at 43,760-61; see also 42 U.S.C. § 7407(d)(1)(A); Motor Vehicle Mfrs. Assn. of United States, Inc. v. State Farm Mut. Automobile Ins. Co., 463 U.S. 29, 43 (1983) ("The agency must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made."") (quoting Burlington Truck Lines v. United States, 371 U.S. 156, 158 (1962)).

 $<sup>\</sup>frac{47}{2015}$  Page Memo at 6 and Attach. 2 at 2-3.

sources contributing to the violation."<sup>48</sup> Consideration of those factors supports including Pirkey in the existing Martin Lake nonattainment area.

## 1. <u>Air quality data or dispersion modeling results</u>

In the first step of the analysis, EPA intends to review monitoring and modeling data from the most recent three year period—here, 2017 through 2019. Although the monitor at the Pirkey Power Plant reflects a 44 ppb design value for 2017-2019, "to be designated attainment it will be necessary to show that sources in the area are not contributing to a violation in a nearby area."<sup>49</sup>

As explained in the attached modeling, however, the Pirkey Plant contributes to exceedances of the NAAQS in the nearby nonattainment area around Martin Lake in several significant ways. At the outset, using hourly emissions data from EPA's Clean Air Markets Program Database (CAMD) for the 2017-19 period,<sup>50</sup> stack parameters including location, height, diameter, temperature, and exit velocity from Martin Lake's own AECOM modeling report,<sup>51</sup> public data, and Pirkey, and conservative modeling inputs, the modeling indicates that Martin Lake and Pirkey together cause significant exceedances of the NAAQS—impacts as high as 306.2 µg/m<sup>3.52</sup>

The figure below shows the highest predicted exceedances (in yellow) from both plants. Those impacts occur to the south of the plant, whereas the Martin Lake monitor is approximately 1.9 km to the north of Martin Lake. The maximum impact is primarily due to SO<sub>2</sub> emissions from the Martin Lake plant, but Pirkey has a peak impact of 6.7  $\mu$ g/m<sup>3</sup> at the location of this maximum impact (again in yellow to the south of the plant). Thus, SO<sub>2</sub> pollution from the Pirkey plant exacerbates the intensity of the monitored and modeled violations of the NAAQS at the Martin Lake Monitor and around the facility. Consequently, Pirkey is contributing to nonattainment within the meaning of 42 U.S.C. § 7407(d)(1)(A).<sup>53</sup>

<sup>&</sup>lt;sup>48</sup> Memorandum from Peter Tsirigotis to Regional Division Directors, Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard—Round 4 at 5 (Sept. 5, 2019) [hereinafter, "Tsirigotis Memo"].

<sup>&</sup>lt;sup>49</sup> Page Memo at Attach. 2 at 2.

<sup>&</sup>lt;sup>50</sup> http://ampd.epa.gov/ampd/

<sup>&</sup>lt;sup>51</sup> Ex. 2A.

 $<sup>^{52}</sup>$  As explained in the attached modeling report, these impacts are almost certainly conservative (including low background levels and conservative stack parameters) the SO<sub>2</sub> concentrations resulting from emissions from the two plants is likely much higher and more widespread. See Ex. 2 at 11.

<sup>&</sup>lt;sup>53</sup> See Catawba Cnty, 571 F.3d at 39 (EPA must designate as nonattainment any area that

<sup>&</sup>quot;exacerbates" nonattainment nearby, a flexible standard that courts have recognized as central to the "very purpose" of Section 107(d) area designations).

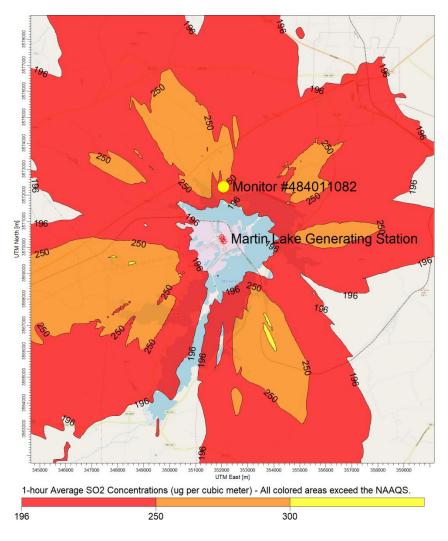


Figure 1 -- NAAQS Exceedances for 2017-19 Period Caused by Martin Lake and Pirkey<sup>54</sup>

The figure below shows the predicted contribution from the Pirkey power plant, by itself. The Pirkey plant also has a peak impact of  $8.2 \,\mu\text{g/m}^3$ —well above EPA's one percent contribution threshold—at the location of the Martin Lake monitoring station, which, as noted, is approximately 1.9 km to the north of Martin Lake.

<sup>&</sup>lt;sup>54</sup> Ex. 2 at Figure 2.

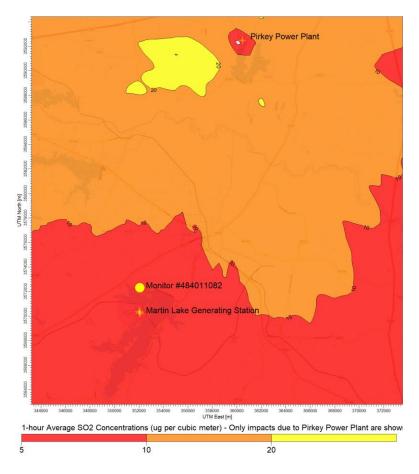


Figure 2 -- Impacts of Pirkey Power Plant Alone<sup>55</sup>

In addition to exacerbating the intensity of the NAAQS violations around Martin Lake, Pirkey also increases the geographic scope of NAAQS violations around Martin Lake. Indeed, comparing the impacts of Martin Lake, by itself, with the impacts from Martin Lake and Pirkey together demonstrates that, as a result of Pirkey's pollution impacts, the area of modeled NAAQS violations expands to encompass almost the entire City of Tatum between the two plants.<sup>56</sup> Thus, Pirkey exacerbates both the magnitude and extent of NAAQS exceedances around Martin Lake, and therefore contributes to nonattainment within the meaning of the Clean Air Act.

<sup>&</sup>lt;sup>55</sup> Ex. 2 at Figure 3.

<sup>&</sup>lt;sup>56</sup> Compare id. with Martin Lake Steam Electric Station Tatum, Texas Evaluation of Compliance with the 1-hour NAAQS for SO<sub>2</sub>, September 23, 2019, conducted by Steven Klafka, P.E., BCEE Wingra Engineering, S.C., Madison, Wisconsin. Klafka, EPA Docket No. EPA-HQ-OAR-2014-0464-0328.

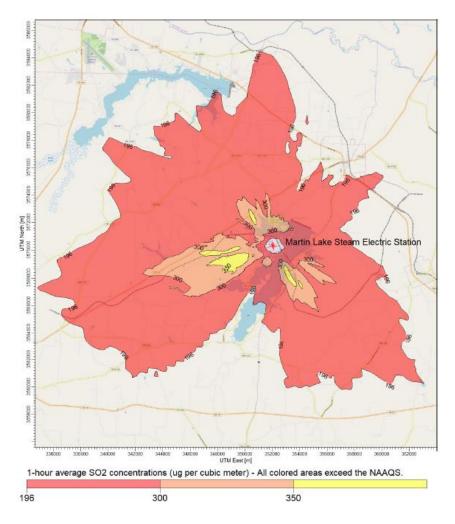


Figure 3 – Impacts of Martin Lake Alone<sup>57</sup>

In sum, the attached air quality modeling demonstrates that the Pirkey power plant is contributing to those violations of the SO<sub>2</sub> NAAQS in nearby Rusk County,<sup>58</sup> and must therefore be included in a nonattainment area encompassing both Martin Lake and Pirkey. 42 U.S.C. 7407(d)(1)(A)(i).

### 2. Emissions-related data

In its designations guidance, EPA states that he agency "intend[s] to examine actual emissions of SO<sub>2</sub> from sources located in and around the violating area. Significant emissions levels in a nearby area indicate potential for the area to contribute to observed or modeled violations of the NAAQS."<sup>59</sup>

<sup>&</sup>lt;sup>57</sup> Ex. 6 at 10.

<sup>&</sup>lt;sup>58</sup> Ex. 2.

<sup>&</sup>lt;sup>59</sup> Page Memo, Attach. 2 at 2-3.

Here, the available emissions data weigh in favor of including Pirkey within the Martin Lake nonattainment area, and using the southwest portion of Harrison County as the boundary for the designation to reflect the considerable amount of SO2 coming from Pirkey. Martin Lake is a lignite-burning power plant comprised of three units, for a total of 2,455 MW generating capacity. Pirkey also burns lignite coal, but is a single unit with approximately 720 MW generating capacity.

Facility	2017	2018	2019	Total
Martin Lake	36,441	56,198	46,549	139,189
Pirkey	3,958	5,085	3,073	12,118

### Table 1: SO2 Emissions from Pirkey and Martin Lake (tons)60

Although Martin Lake is responsible for the majority of emissions in the area, Pirkey is responsible for up to 10% of the annual SO<sub>2</sub> emissions in the area, and approximately 8% of the total SO<sub>2</sub> emissions for the three year period, 2017-2019.

# 3. <u>Meteorology</u>

Meteorological data is another important factor to consider in identifying areas potentially contributing to the monitored violations at Martin Lake. As explained in the attached air modeling report, Pirkey contributes as much as  $8.2 \,\mu\text{g/m}^3$ —or more than 4 percent of the NAAQS—to monitored exceedances at Martin Lake. The modeling includes a wind rose for the 2017-19 meteorological year, indicating that wind from the Pirkey plant directly impacts air quality around the Martin Lake plant 6.1% of the time.

# 4. Geography and topography

Geography and topography weigh in favor of designating both Pirkey and Martin Lake as part of one nonattainment area because there are no geographical features that prevent Pirkey's  $SO_2$  pollution from impacting Martin Lake or vice versa.

# 5. Jurisdictional boundaries

Given the proximity of the two plants—only 14 miles apart—and the fact that Harrison County is immediately adjacent to Rusk, the proper starting point for identifying the boundaries of a broader nonattainment area should be the Longview-Marshal combined metropolitan statistical area. At a minimum, EPA should evaluate designating the northeast portion of Rusk County, where Martin Lake is located, and the southwest portion of Harrison County, where Pirkey is located, as nonattainment. Indeed, a nonattainment area should contain the area violating the NAAQS (e.g., the area around a violating monitor or encompassing modeled violations), as well as *any nearby areas (e.g., counties or portions thereof) that contain emissions sources contributing to the violation.*<sup>61</sup>

In sum, on the "basis of available information"—including EPA's past practice and interpretation of the Clean Air Act, available modeling data, and EPA's five-factor designation analysis—it is clear that Pirkey "contributes to ambient air quality in a nearby area that does not

<sup>&</sup>lt;sup>60</sup> https://ampd.epa.gov/ampd/

<sup>&</sup>lt;sup>61</sup> Tsirigotis Memo at 5.

meet" the SO<sub>2</sub> NAAQS.<sup>62</sup> Accordingly, EPA must include Pirkey as part of the adjacent Martin Lake nonattainment area.

# C. EPA Was, and Is, Required to Consider Credible Third-Party Modeling.

As discussed above, EPA must base its decisionmaking on all available and relevant information. *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983) ("[T]he agency must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made." (quoting *Burlington Truck Lines v. United States*, 371 U.S. 156, 168 (1962)).

EPA appropriately considered third-party modeling when issuing the Round 2 designations and cannot disregard such information now. Agency action is arbitrary and capricious where it relies on irrelevant factors, fails "to consider an important aspect of the problem," "runs counter to the evidence before the agency," or is wildly "implausible." *Id.* (internal quotation marks omitted).

Because Sierra Club's modeling credibly demonstrates that Pirkey contributes to NAAQS violations at the nearby Martin Lake monitor, EPA must designate Pirkey as nonattainment. 42 U.S.C. § 7407(d)(1)(A)(i) (EPA must designate as "nonattainment" "any area that does not meet . . . the [NAAQS]" and any area that "contributes to ambient air quality in a nearby area that does not meet" the NAAQS.). Significantly, EPA may only designate an area as "unclassifiable" when that area "cannot be classified *on the basis of available information* as meeting or not meeting the [NAAQS]." *Id.* § 7407(d)(1)(A)(iii) (emphasis added). As such, the Act affords EPA no discretion to ignore credible evidence and cherry-pick the information it wishes to rely on. Given that Sierra Club's modeled SO<sub>2</sub> conservative concentrations (with low background and no nearby sources) show that Pirkey contributes more than 4% of the NAAQS at Martin Lake, and that Pirkey is responsible for approximately 8-10% of the total SO<sub>2</sub> emissions in the area, Sierra Club's modeling is reliable and a sufficient basis for a determination of nonattainment and clearly demonstrates the area around Pirkey is nonattainment.

# II. EPA MUST REVISIT AND DESIGNATE POTTER COUNTY AS NONATTAINMENT.

All of the available evidence makes clear that the area surrounding the Harrington power plant is *not* "meet[ing]" the NAAQS, and the area must therefore be designated as nonattainment. 42 U.S.C. § 7407(d)(1)(A)(i). First, although EPA designated the air quality around Harrington Station as "unclassifiable" in 2016, that finding does not relieve the agency of its obligation under the Clean Air Act, the DRR, and its own guidance to revisit the designation in light of available information. Second, under the DRR, the State of Texas chose to characterize the air quality around Harrington with monitoring. That monitor now demonstrates, based on three years of certified data, that the power plant is, in fact, violating the NAAQS. EPA cannot ignore that evidence and must designate the area as being in nonattainment. Third, air quality modeling conducted by Wingra Engineering, S.C. confirms that (even using conservative assumptions) that SO<sub>2</sub> emissions from the Harrington power plant are causing violations of the 2010 SO<sub>2</sub> NAAQS, and therefore the areas surrounding the plants must be designated as nonattainment.

<sup>&</sup>lt;sup>62</sup> 42 U.S.C. § 7407(d)(1)(A).

### A. EPA Must Evaluate Recent Monitoring and Modeling Data Demonstrating that Harrington is Causing Exceedances of the NAAQS.

As noted, on July 12, 2016, EPA designated the area surrounding Harrington as "unclassifiable," "due to lack of modeling and monitoring data"<sup>63</sup> and because the state's monitoring data in 2016 was "not sufficient to determine an area is attainment because the monitor may not be located at the point of maximum impact."<sup>64</sup> But that finding does not relieve EPA of its statutory obligation to evaluate available information to determine whether an area does not meet the NAAQS.<sup>65</sup>

Moreover, EPA's binding DRR makes clear that any Round 3 and 4 designations are "to be informed and benefited by any additional information that is timely obtained pursuant to the DRR,"<sup>66</sup> and the rule "*requires*" continuing air quality characterization for "areas previously designated as unclassifiable, just as it requires air quality characterization for undesignated areas."<sup>67</sup> The rule further explains that where, as here, an area was initially designated as unclassifiable, the "additional information required by this rule *will be used* to inform possible future actions by the EPA or the state (*e.g.*, to determine whether the area is attaining or not attaining the standard, and change designation status)."<sup>68</sup>

Where, as here, "monitoring information required to be submitted by the air agency to the EPA pursuant to [the DRR] indicates that an area is not attaining the 2010 SO<sub>2</sub> NAAQS the EPA may take appropriate action, including but not limited to . . . . designation or redesignation of the area to nonattainment, . . ."<sup>69</sup> In 2017, Texas opted to characterize the air quality around Harrington via monitoring data.<sup>70</sup> Having opted for the monitoring pathway, Texas cannot reverse course; and EPA may not ignore certified monitoring data reflecting violations of the standard.

EPA's designations guidance confirms that the Round 3 and 4 designations are to be informed by data collected after the initial first two rounds of designations. Indeed, EPA notes that in the time since states submitted their original designations recommendations in 2011, they may have obtained additional monitoring or modeling information that may be relevant for future designations, and the agency "*will consider such information*."<sup>71</sup> Moreover, the guidance makes clear that "[a]reas where monitoring data indicate a violation of the 1-hour, 75 ppb primary SO<sub>2</sub> standard *will be designated as "nonattainment.*"<sup>2</sup>

<sup>&</sup>lt;sup>63</sup> EPA, Technical Support Document, Texas, Proposed Area Designations for the 2010 SO2 Primary National Ambient Air Quality Standard at 143, EPA Docket EPA–HQ–OAR–2014–0464.

<sup>&</sup>lt;sup>64</sup> EPA, Responses to Significant Comments on the Designation Recommendations for the 2010 Sulfur Dioxide Primary National Ambient Air Quality Standard (NAAQS) at 136, Docket Number EPA–HQ–OAR–2014–0464 (June 30, 2016).

<sup>&</sup>lt;sup>65</sup> 42 U.S.C. § 7407(d)(1)(A)(iii).

<sup>66 80</sup> Fed. Reg. at 51,056.

<sup>&</sup>lt;sup>67</sup> *Id.* at 51,084 (emphasis added).

<sup>&</sup>lt;sup>68</sup> *Id.* (emphasis added).

<sup>&</sup>lt;sup>69</sup> 40 C.F.R. § 51.1205(d).

<sup>&</sup>lt;sup>70</sup> See Ex. 6 (state DDR selections under 40 CFR 51.1203(b))

<sup>&</sup>lt;sup>71</sup> 2015 Page Memo. at 2, 4-5 (emphasis added).

<sup>&</sup>lt;sup>72</sup> *Id.*, Attach. 2 at 2.

Thus, under the Clean Air Act, its implementing regulations, and EPA's own guidance, the agency has a continuing obligation to collect and evaluate data to inform the designation of both undesignated areas and those areas previously designated as unclassifiable. And in making those designations, EPA must evaluate *both* monitoring and modeling data.<sup>73</sup> And if air quality monitoring in 2019 continues to demonstrate violations of the standard, EPA must take steps to redesignate those areas as being in nonattainment with the 2010 SO<sub>2</sub> NAAQS.<sup>74</sup>

### B. Texas's Own Certified Monitoring Demonstrates Conclusively that Air Quality Surrounding Harrington Station "Does Not Meet" the NAAQS, and Therefore EPA Must Designate the Area as Nonattainment.

Under plain language of section 107(d) of the CAA, EPA is required to designate as nonattainment any area that "*does not meet*" the NAAQS. 42 U.S.C. § 7407(d)(1)(A)(i) (emphasis added). "Congress's use of the present tense matters" *United States v. Marsh*, 829 F.3d 705, 709 (D.C. Cir. 2016), and suggests that attainment must be demonstrated on the basis of current data. Indeed, EPA has consistently interpreted 42 U.S.C. § 7407(d)(1)(A), as requiring the agency to determine NAAQS violations based on *current* conditions rather than possible future conditions.<sup>75</sup> In fact, the agency has consistently observed that it "cannot designate as attainment an area for which it has certified data showing a violation of the NAAQS ....."<sup>76</sup>

Courts have upheld EPA's interpretation of 42 U.S.C. § 7407(d)(1)(A), as requiring the agency to determine NAAQS violations based on current conditions.<sup>77</sup> Thus, the statute, case law, and

<sup>&</sup>lt;sup>73</sup> See, e.g., 2015 Page Memo at 2, 4-5 (recognizing modeling as "an appropriate tool to indicate a violation of the SO<sub>2</sub> NAAQS" and anticipating "that in many areas the most reliable information for informing these designations will be based on source modeling").

<sup>&</sup>lt;sup>74</sup> 40 C.F.R. § 51.1205(d).

<sup>&</sup>lt;sup>75</sup> 2015 Page Memo., Attach. 2 at 2 ("Areas where monitoring data indicate a violation of the 1-hour, 75 ppb primary SO2 standard *will be designated as "nonattainment"*); *see also* EPA, Response to Comments, 2008 Ozone NAAQS Area Designations, EPA Docket No. EPA-HQ-OAR-2008-0476-0675 at 58, 65 ("for purposes of designating areas," the agency "consider[s] (i.e., current activities) to violations of the 2008 ozone NAAQS and do not assess or predict future source emissions."); EPA, Addendum to Response to Comments, 2008 Ozone NAAQS Area Designations, EPA Docket No. EPA-HQ-OAR-2008-0476-0685 at 3, 16 ("EPA is required to designate as nonattainment any area that is violating the ozone NAAQS or that is contributing to a violation of the ozone NAAQS in a nearby area."); 69 Fed. Reg. 23,858, 23,861/2 (Apr. 30, 2004) (designations under 1997 ozone NAAQS) (observing that EPA cannot designate as attainment any area with a violating monitor); EPA, Response to Comments, 1997 Ozone NAAQS Designations, EPA Docket No. EPA-HQ-OAR-2003-0083-1816 at 45 ("Also it is important to remember that designations are based on current air quality, not modeled air quality for some several years in the future.").

<sup>&</sup>lt;sup>76</sup> EPA, Addendum to Response to Comments, 2008 Ozone NAAQS Area Designations, EPA Docket No. EPA-HQ-OAR-2008-0476-0685 at 39.

<sup>&</sup>lt;sup>77</sup> *Clean Wisconsin v. EPA*, 964 F.3d at 1164 (recognizing that EPA "*must* designate as nonattainment any area that monitors a violation of the NAAQS[.]"); *see also Catawba County*, N.C. v. E.P.A., Case No. 05-1064 (Memorandum Op. filed July 7, 2009) (unpublished) (upholding designations based on current conditions); *see also Catawba County*, N.C. v. E.P.A., 571 F.3d 20, 43 (D.C. Cir. 2009) (in challenge to designations under particulate matter NAAQS, rejecting argument that EPA failed to

EPA's consistent interpretation make clear that the agency must designate an area as being in nonattainment if it contains EPA-certified monitors that are currently violating the standard.<sup>78</sup>

Here, the State's own EPA-approved monitor demonstrates conclusively that the ambient air quality surrounding the Martin Lake power plant "does not meet" the 2010 SO<sub>2</sub> NAAQS, and therefore the area must be designated as nonattainment. 42 U.S.C. § 7407(d)(1)(A)(i).<sup>79</sup> In response to EPA's DRR, in January 2017, Texas sited and began operating a new SO<sub>2</sub> monitor approximately 2 km to the north of the Harrington power plant.<sup>80</sup> TCEQ's own monitoring data for the three year period from 2017 to 2019, which EPA has now certified, definitively demonstrates that air quality surrounding the plant exceeds the health-based NAAQS.<sup>81</sup> Indeed, EPA's certified three-year design value for the Harrington monitor is 114 ppb—more than one and half times the health-based NAAQS safeguard. Moreover, even though there are serious questions about whether the Harrington monitor actually captures the highest SO<sub>2</sub> concentrations near the plant, the monitor demonstrates conclusively that the area surrounding the plant is violating the health-based NAAQS, exposing the surrounding communities to significant risk. It would therefore be arbitrary, capricious, and contrary to law for EPA to ignore those monitored values. Instead, the agency must redesignate the area as nonattainment.

#### C. EPA Cannot Avoid Redesignating Harrington as Nonattainment By Abdicating Its Obligations in Favor of the State's Preferred Process.

EPA cannot avoid a nonattainment designation by deferring to Texas's process. Based on limited public information, it appears as though the State of Texas and the operator of the Harrington power plant have agreed to a "back room" settlement that purports to address the Harrington's ongoing violations of the Clean Air Act. Texas has refused to produce responsive documents despite a public records request, and is attempting to conceal the substance of the agreement, but SPS/Xcel's recent Integrated Resource Planning documents indicate that the Company plans to address the documented violations of the NAAQS by agreeing to switch from burning coal to gas by the end of 2025—unnecessarily exposing Texans to dangerous sulfur dioxide pollution more than five more years. This proposal is unlawful for several reasons, and cannot serve as the basis for refusing to redesignate the area as nonattainment.

First, EPA's final air quality designations govern the stringency of the CAA SIPs required from each state to ensure achievement of the NAAQS. 42 U.S.C. § 7407(a). If an area is designated "nonattainment," the state must develop and submit, within 18 months of the effective date of that

<sup>79</sup><u>https://www17.tceq.texas.gov/tamis/index.cfm?fuseaction=report.view\_site&siteID=1238&siteO</u> rderBy=name&showActiveOnly=0&showActMonOnly=1&formSub=1&tab=info.

<sup>80</sup> TCEQ, 2016 Annual Monitoring Network Plan at 7.

<sup>81</sup> See Ex. 4, EPA, Sulfur Dioxide Air Quality Design Values, 2019,

https://www.epa.gov/sites/production/files/2020-

05/so2\_designvalues\_2017\_2019\_final\_05\_05\_20.xlsx.

account for future reductions from future federal regulations, including Clean Air Interstate Rule and the NOx SIP Call).

<sup>&</sup>lt;sup>78</sup> EPA Memorandum, Area Designations for the 2015 Ozone NAAQS at 3, 5 ("Section 107(d) explicitly requires that the EPA designate as nonattainment not only the area that is violating the pertinent standard, but also those nearby areas that contribute to the violation in the violating area.").

designation, a SIP that provides for the attainment of the NAAQS "*as expeditiously as practicable*," but no later than 5 years from the date of the nonattainment designation. *Id.* § 7502 (emphasis added). That the Clean Air Act provides an outside compliance deadline of five years for compliance does not give sources a free pass to continue polluting-as-usual, especially when the Company acknowledges that it could, in fact, switch fuels and comply with the NAAQS as early as 2022.<sup>82</sup>

Second, the Clean Air Act imposes specific requirements that nonattainment areas must meet to demonstrate compliance with the NAAQS. 42 U.S.C. § 7407(d)(3). EPA must (1) determine that the area has *attained* the national ambient air quality standard; (2) fully approve the applicable "nonattainment" implementation plan for the area under Section 7410(k); (3) determine that the improvement in air quality is due to permanent and enforceable reductions in emissions resulting from implementation of the applicable implementation plan and applicable federal air pollutant control regulations and other permanent and enforceable reductions; (4) fully approve a maintenance plan for the area; and (5) ensure that the area has met all of the requirements applicable to the area under Part D of the Act. 42 U.S.C. § 7407(d)(3)(E)(i)-(v). Neither Texas, EPA, nor the source can escape those requirements by agreeing to a backroom deal without public input.

Texas's apparent approach to Harrington's violations of the law not only conflicts with the Clean Air Act, but also conflicts with EPA's designations guidance. In its 2019 Round 4 guidance, EPA indicated that there are two situations in which the agency might finalize a "designation other than nonattainment for areas where a source-oriented monitor has a design value above the NAAQS."83 First, "where the source in question has recently become subject to and is complying with federally enforceable SO<sub>2</sub> emission limits and modeling with those limits shows attainment of the 2010 SO2 NAAQS, but the monitored design value does not yet account for these recent emissions reductions.<sup>384</sup> The new SO<sub>2</sub> emissions limit must also be federally enforceable and in effect before EPA finalizes area designations in December 2020 for it to be considered in determining what available information is representative of the current air quality conditions in the area. Second, the state could avoid a nonattainment designation where the source in question has permanently and enforceably *ceased operations prior* to the area designation.<sup>85</sup> In this case, EPA expects that the source would need to have surrendered its SO2 emissions permit, such that its modeled allowable SO<sub>2</sub> emissions would be zero, before EPA could finalize the area designation in December 2020 as something other than nonattainment. Neither of those circumstances apply here, and Texas cannot circumvent the unambiguous text and purpose of the Clean Air Act based on a source's commitment to stop emitting harmful levels of pollution in five years. Such a result would eviscerate the Clean Air Act's mandate to bring all areas of the country into compliance with health-based standards as expeditiously as practicable. 42 U.S.C. §§ 7401(b)(1), 7502(c)(1).

<sup>&</sup>lt;sup>82</sup> See Ex. 7, Xcel, 2020 Tolk Analysis: Session 2 of the 1st Technical Conference at p.34 (Sept. 1, 2020), available at <u>https://www.xcelenergy.com/staticfiles/xe-</u>

<sup>&</sup>lt;u>responsive/Company/Rates%20&%20Regulations/Resource%20Plans/NM-IRP-Sept-1-2020-2nd-Session-of-1st-Tolk-Technical-Conference-Presentation.pdf;</u> Xcel, 2021 SPS New Mexico Integrated Resource Plan: 2nd Public Advisory Meeting at 16-18 (Aug. 20. 2020).

<sup>&</sup>lt;sup>83</sup> Tsirigotis Memo at 4-5.

<sup>&</sup>lt;sup>84</sup> Id.

<sup>&</sup>lt;sup>85</sup> Id.

# D. Sierra Club Modeling Confirms That Air Quality in the Community Surrounding Harrington Violates the NAAQS.

Although EPA's proposal does not provide any technical data or reasoned explanation for failing to reevaluate  $SO_2$  emissions from Harrington, a review of EPA's five-factor analysis makes clear that Harrington must be designated as nonattainment.

## 1. Air quality data or dispersion modeling results

As discussed at length, EPA-certified air quality monitoring at the Harrington monitor demonstrates conclusively that the plant is causing violations of the NAAQS. To evaluate the extent and magnitude of those impacts, in September 2020, Sierra Club retained Wingra Engineering to conduct updated modeling for the plant for the years 2017 through 2019.<sup>86</sup> That September 2020 modeling confirms that, even with the use of inputs that are likely conservative in favor of the source, the SO<sub>2</sub> concentrations in the area surrounding Harrington exceeds the 1-hr SO<sub>2</sub> NAAQS.

Table 2: SO<sub>2</sub> Modeling Results for Harrington Station

Emission Rates	Averaging Period	99 <sup>th</sup> Percentile 1-hour Daily Maximum (µg/m <sup>3</sup> )				Complies with
		Impact	Background	Total	NAAQS	NÅAQS?
Actual 2017-19	1-hour	385.9	4.7	390.6	196.2	No

As explained in the modeling report, for the 2017-19 period, the downwind Amarillo Xcel El Rancho monitor located 2.0 km northeast from Harrington Station measured a design value of 298.2  $\mu g/m^3$ , well above the 1-hour NAAQS for SO<sub>2</sub> of 196.2  $\mu g/m^3$ . The modeling analysis predicted a design value of 201.9  $\mu g/m^3$  at this monitor location, approximately 96.3  $\mu g/m^3$  and 32% less than the actual monitored value. This suggests the modeling analysis is under-predicting the impacts of SO<sub>2</sub> emission from Harrington Station—i.e., the modeling is favorable to the source.

Moreover, the maximum design value predicted by the modeling analysis is 390.6  $\mu$ g/m<sup>3</sup>. This occurs approximately 1.6 km southeast of the Amarillo Xcel El Ranch monitor. This suggests the Amarillo Xcel El Rancho monitor is not actually located where the maximum impacts of SO<sub>2</sub> emissions from Harrington Station occur.

# 2. Emissions-related data

Here, the available emissions data weigh in favor of designating the area around Harrington as being in nonattainment. Harrington is comprised of three units, for a total of approximately 1,020 MW generating capacity. Harrington is the primary source of SO<sub>2</sub> pollution in the area.

<sup>&</sup>lt;sup>86</sup> Ex. 1.

### Table 3: SO2 Emissions from Harrington (tons)<sup>87</sup>

Facility	2017	2018	2019	Total
Harrington	12,881	12,412	10,476	35,769

#### 3. Jurisdictional boundaries

As noted, a nonattainment area should contain the area violating the NAAQS (e.g., the area around a violating monitor or encompassing modeled violations), as well as any nearby areas (e.g., counties or portions thereof) that contain emissions sources contributing to the violation. EPA generally considers county boundaries as the analytical starting point for determining  $SO_2$  nonattainment areas, but an evaluation of five factors for each area may be considered in determining a different nonattainment boundary.

Here, Potter County is the appropriate starting point for a nonattainment boundary around Harrington. Although air modeling indicates that Harrington's impacts are localized around the plant itself, the modeling is likely very conservative and almost certainly underestimates the magnitude and extent of violations caused by the plant. To further the Clean Air Act's precautionary and protective goals, EPA should designate the entirety of Potter County as nonattainment until the state and EPA have the emissions data to adequately evaluate the pollution impacts of all existing sources in the area.

In sum, on the "basis of available information"—including EPA's past practice and interpretation of the Clean Air Act, available modeling data, and EPA's five-factor designation analysis—it is clear that air quality surrounding the Harrington power plant "does not meet" the SO<sub>2</sub> NAAQS.<sup>88</sup> Accordingly, EPA must redesignate Harrington as nonattainment.

# III. IF FINALIZED, THE PROPOSED ACTION WOULD BE SUBJECT TO REVIEW IN THE D.C. CIRCUIT.

As explained above, based on the Clean Air Act's mandate and EPA's regulations and implementing guidance, the agency must designate the areas around Harrington Station and the Pirkey Power Plant as being in nonattainment under the 2010 SO<sub>2</sub> NAAQS. Even if EPA does not, however, review of its action would occur in the D.C. Circuit, and any effort by the agency to evade this venue would be arbitrary. First, EPA's proposed Texas designations are, on their face, part of the agency's "nationally applicable" Round 4 area designations rulemaking under the 2010 SO<sub>2</sub> NAAQS, which applies the same designation standards to every state. *ATK Launch Systems* v. *EPA*, 651 F.3d 1194, 1199 (10th Cir. 2011). Second, EPA's proposal would establish a nationally applicable policy of EPA refusing to revisit and redesignate areas that are indisputably violating the NAAQS. As discussed above, in 2016, EPA designated the area surrounding Harrington as being in nonattainment or attainment finding. Now, after three full years of certified monitoring, EPA has evidence demonstrating conclusively that the area is violating the NAAQS. Any final rule ignoring that information would, in effect, establish a nationwide policy that EPA may designate an area as unclassifiable and then ignore subsequent, verified violations in perpetuity.

<sup>&</sup>lt;sup>87</sup> https://ampd.epa.gov/ampd/

<sup>&</sup>lt;sup>88</sup> 42 U.S.C. § 7407(d)(1)(A).

Third, any EPA refusal to issue a finding that the D.C. Circuit is the appropriate venue for review of *all* of the Round 4 designations is likely to result in different standards and methodologies applying to designations in different areas of the country, thereby unlawfully and arbitrarily defeating the Clean Air Act's goal of ensuring uniformity of national issues. *See Texas v. EPA*, No. 10-60961, 2011 WL 710598, at \*4 (5th Cir. Feb. 24, 2011; *Texas Mun. Power Agency v. EPA*, 89 F.3d 858, 867 (D.C. Cir. 1996); *see also Nat'l Envtl. Dev't Ass'n's Clean Air Project v. Environmental Protection Agency*, 891 F.3d 1041, 1054 (D.C. Cir. 2018) (Silberman, J., concurring) (the Clean Air Act's venue provision reflects "a clear congressional mandate: uniform judicial review of regulatory issues of national importance"); *NRDC v. EPA*, 512 F.2d 1351, 1357 (D.C. Cir. 1975) (vesting of exclusive review in the D.C. Circuit is designed "to ensure uniformity in decisions concerning issues of more than purely local or regional impact"). The Clean Air Act's venue provision "facilitat[es] the orderly development of the basic law"; it ensures the D.C. Circuit reviews "matters on which national uniformity is desirable," thereby avoiding "piecemeal review of national issues in the regional circuits, which risks potentially inconsistent results." *Texas*, 2011 WL 710598, at \*4.

Even if EPA determines that its proposal is not part of the nationally applicable SO<sub>2</sub> designation rule, EPA must still find that judicial review is appropriate only in the D.C. Circuit by publishing a finding that the proposed amendment to the national rule is "based on a determination of nationwide scope and effect." 42 U.S.C. § 7607(b)(1). The Clean Air Act "gives the Administrator the discretion to move venue to the D.C. Circuit by publishing a finding declaring the Administrator's belief that the action is based on a determination of nationwide scope or effect." *Texas*, 829 F.3d at 419-20. While EPA's venue determination (or lack thereof) is entitled to some deference, it "does not escape review under the APA's arbitrary and capricious standard." *Nat'l Envtl. Dev't*, 891 F.3d at 1053 (Silberman, J., concurring).

Here, it would be arbitrary for EPA to refuse to publish a finding that allowing affirmative defenses is based on a determination of nationwide scope and effect. First, the proposal is indisputably "based on" EPA's determinations about the proper methodology to be applied to area designations under the 2010 national standard for SO<sub>2</sub>, and whether EPA has the obligation or authority to ignore the Clean Air Act's mandate to designate all areas that are causing or contributing to violations of the NAAQS based on the agency's myopic view of the scope of the rulemaking.

Second, a refusal to find that the rule is based on determinations of nationwide scope and effect would not only arbitrarily inconsistent with the face of the rule, but it would be arbitrarily inconsistent the agency's findings regarding the Round 2 national designations. There, EPA found that venue was appropriate in the D.C. Circuit because the designations were both nationally applicable and based on determinations of nationwide scope and effect:

at the core of th[e] final action and this supplemental final action is the EPA's interpretation of the definitions of nonattainment, attainment and unclassifiable under section 107(d)(1) of the CAA, and its application of that interpretation to areas across the country.

81 Fed. Reg. at 89,875. Using these nationwide interpretations—and the same five-factor test, analytical approach, and technical assessment considering all available air quality modeling and monitoring data used by EPA in promulgating its first Round 2 air quality designations—EPA

established air quality designations throughout the country and including Texas. 81 Fed. Reg. at 89,871-73. The final designations and this proposal, therefore, rest on a common and nationwide approach used by EPA thus far to promulgate Round 2 Designations for 65 areas in 24 states. 81 Fed. Reg. 45,039; 81 Fed. Reg. 89,870. And any final rule attempting to split apart each individual state designation would necessarily reverse that national policy. Thus, any petition for review of the Round 4 designations should "be filed only in the United States Court of Appeals for the District of Columbia." 42 U.S.C. § 7601(b)(1).

#### **CONCLUSION**

Modeling and monitoring evidence conclusively demonstrates that Harrington Station Power Plant in Potter County, Texas is causing violations of the 2010 SO<sub>2</sub> NAAQS. Consequently, the area around the plant must be designated as nonattainment under the standard. Similarly, the Pirkey Power Plant in Harrison County, Texas contributing to monitored violations of the 2010 SO<sub>2</sub> NAAQS near Martin Lake. Accordingly, EPA must include Pirkey and the southwestern portion of Harrison County as part of the Rusk County nonattainment area. 42 U.S.C. § 7407(d)(1)(A)(i).

Respectfully submitted,

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