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February 13, 2017

Sent via Certified U.S. Mail Return Receipt Requested and Email (mccabe.catherine@epa.gov)

Catherine McCabe
Acting Administrator
U.S. Environmental Protection Agency
William Jefferson Clinton Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

RE: Petition for Reconsideration and Administrative Stay—Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard for Four Areas in Texas: Freestone and Anderson Counties, Milam County, Rusk and Panola Counties, and Titus County, 81 Fed. Reg. 89,870 (Dec. 13, 2016) (Docket No. EPA-HQ-OAR-2014-0464)

Dear Acting Administrator McCabe:

Vistra Energy Corp. and its subsidiaries Luminant Generation Company LLC, Big Brown Power Company LLC, Sandow Power Company LLC, and Luminant Mining Company LLC (collectively, "Luminant") respectfully petition the U.S. Environmental Protection Agency ("EPA") to reconsider and immediately stay the effective date of EPA's final action entitled *Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard—Supplement to Round 2 for Four Areas in Texas: Freestone and Anderson Counties, Milam County, Rusk and Panola Counties, and Titus County* ("Final Rule"), published at 81 Fed. Reg. 89,870 (Dec. 13, 2016).

Luminant has a substantial and unique interest in the Final Rule. Luminant is the largest competitive power generator in Texas. Luminant's generation portfolio includes approximately 17,000 megawatts ("MW") of installed generation capacity, which includes over 8,000 MW from coal and over 6,000 MW from natural gas. As of September 30, 2016, Luminant provided electricity to approximately 24% of residential customers and 19% of commercial customers in the region managed by the Electric Reliability Council of Texas ("ERCOT"),[1] the independent system operator for the majority of the State.

[1] Form S-1, Vistra Energy Corp. at 5 (Dec. 23, 2016).

The Final Rule rejects the State of Texas's recommended designations for three areas in Texas for the 2010 1-hour SO_2 national ambient air quality standard ("NAAQS").[2] Specifically, EPA's Final Rule designates three areas in Texas as nonattainment (Freestone and Anderson Counties; Rusk and Panola Counties; and Titus county) and one area as unclassifiable. 81 Fed. Reg. at 89,870. The three areas designated by EPA as nonattainment surround Luminant's Big Brown Power Plant, Martin Lake Power Plant, and Monticello Power Plant, respectively. EPA's designations are contrary to the attainment/unclassifiable designations recommended by the Texas Commission on Environmental Quality's ("TCEQ"). Luminant submitted to EPA extensive comments and documentation on the proposed rule in support of TCEQ's recommended designations. Nevertheless, EPA rejected TCEQ's recommendations and simply adopted suggested designations by the Sierra Club based solely on modeling simulations submitted by the Sierra Club.

Luminant and the State of Texas believe that EPA's designations were incorrect and contrary to the Clean Air Act ("CAA"), and they have both filed petitions for judicial review of the Final Rule. *See State of Texas et al. v. EPA et al.*, No. 17-60088 (5th Cir.). A copy of Luminant's petition for review that was filed in the U.S. Court of Appeals for the Fifth Circuit on February 10, 2017, is attached as Exhibit A to this petition.

I. EPA should reconsider the Final Rule

Luminant requests that EPA reconsider the Final Rule pursuant to the Administrative Procedure Act ("APA"), 5 U.S.C. § 553(e), or, in the alternative, under the Clean Air Act, 42 U.S.C. § 7607(d)(7)(B). Under the APA, "[e]ach agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule." 5 U.S.C. § 553(e). And under the CAA, EPA must grant reconsideration of a final rule if it can be demonstrated that: (1) "it was impracticable to raise [an] objection within" the time allowed for public comment or "if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review)"; and (2) the "objection is of central relevance[.]" 42 U.S.C. § 7607(d)(7)(B).

a. EPA should reconsider the Final Rule based on TCEQ's monitoring and recent emission declines

EPA should reconsider the Final Rule based on monitoring data to be collected by TCEQ in the areas at issue and recent declines in SO_2 emissions. Doing so would be consistent with the Clean Air Act and EPA past practice. As EPA has previously noted, the use of monitoring data is necessary when making NAAQS designations.[3] In the designation process, the CAA establishes a cooperative federalism approach, and states are granted significant authority. *See id.* § 7407. Specifically, states are to make recommendations to EPA as to which geographic areas

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[2] EPA, *Technical Support Document for the Designation Recommendations for the 2010 Sulfur Dioxide National Ambient Air Quality Standards (NAAQS)—Supplement for Four Areas in Texas Not Addressed in June 30, 2016, Version*, Dock. ID EPA-HQ-OAR-2014-0464-0434 at 3 (Nov. 29, 2016) ("Texas Supp. TSD").

[3] 75 Fed. Reg. 35,520, 35,571 (June 22, 2010); EPA, *Next Steps for Area Designations and Implementation of the Sulfur Dioxide National Ambient Air Quality Standard* 2 (Feb. 6, 2013), *available at* http://faculty.geography.wisc.edu/robertson/docs/439Documents/EPA%20SO2%20monitoring%20statement.pdf ("[T]he starting point for future SO_2 designations should be, as with other NAAQS, a monitoring network to adequately characterize air quality in areas of concern.").

meet or fail to meet the NAAQS or cannot be classified based on available information. *Id.* § 7407(d)(1)(A). The CAA "gives EPA the power to modify a state's designation only to the extent 'necessary,' thereby establishing a deferential standard for EPA disposition of a state choice." 52 Fed. Reg. 49,408, 49,410 (Dec. 31, 1987). In accordance with its authority, TCEQ emphasized in its recommendations to EPA that monitoring data is necessary to characterize accurately actual air quality data for attainment and nonattainment designations for these Texas areas.[4] Consistent with its recommendation, TCEQ has already made efforts to move forward with siting SO_2 monitors in the areas relevant to the Final Rule and has submitted Monitor Placement Evaluation Reports to EPA.[5] We understand that TCEQ submitted these reports to EPA in October and November of 2016, after the close of the public comment period, but before the Final Rule was signed. To our knowledge, EPA has failed to approve them. Despite EPA's failure in this regard, it is apparent that TCEQ is committed to obtaining the necessary data to support credible and defensible designations for these areas.

Importantly, there is every reason to believe that the proposed new monitors to be sited near Luminant's plants—which EPA has refused thus far to approve—will show compliance with the 1-hour SO_2 NAAQS. Indeed, it is undisputable that SO_2 emissions from Luminant's units are declining, both in terms of annual tons and daily maximum tons. Sierra Club's modeling, which EPA accepted as the basis for its designations of nonattainment, used "emissions for the 3-year periods 2012-2014 or 2013-15," according to EPA.[6] But those data sets do not reflect recent significant reductions in SO_2 emissions at Luminant's units. For example, for Luminant's Big Brown Plant, both data sets that EPA says were used in Sierra Club's modeling included 2013, the highest in recent years, in which SO_2 emissions were 62,494 tons.[7] However, Big Brown's SO_2 emissions have declined substantially since 2013. In 2015, Big Brown's SO_2 emissions were only 49,838 and in 2016 only 42,470, as reported in EPA's Clean Air Markets Database ("CAMD").[8] Similarly, at Luminant's Martin Lake Plant, Sierra Club's modeling included the highest year (2013), in which SO_2 emissions were 62,735 tons.[9] However, like Big Brown, Martin Lake's SO_2 emissions have declined substantially. In 2015, Martin Lake's SO_2 emissions were only

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[4] *See* Luminant's Comments on EPA Responses to Certain State Designation Recommendations for the 2010 Sulfur Dioxide National Ambient Air Quality Standard: Notice of Availability and Public Comment Period, Dock. ID EPA-HQ-OAR-2014-0464-0328 at 18-19 (Mar. 31, 2016); Letter from Greg Abbott, Governor of Texas, to Janet G. McCabe, Assistant Administrator, Office of Air and Radiation, EPA (Sept. 18, 2015), *available at* https://www.tceq.texas.gov/assets/public/implementation/air/sip/so2/2015RevisedRecommendation/SO2_Designation_Recommendations_9-18-15.pdf; *see also* Letter from Bryan W. Shaw, Chairman, TCEQ, to Janet G. McCabe, Assistant Administrator, Office of Air and Radiation, EPA and Ron Curry, Regional Administrator, EPA Region 6 (Apr. 19, 2016), *available at* https://www.tceq.texas.gov/assets/public/implementation/air/sip/so2/2015RevisedRecommendation/041916_SO2_Designation_120-Day_Response.pdf.

[5] *See* Big Brown Steam Electric Monitor Placement Evaluation (Exhibit B); Martin Lake Electrical Monitor Placement Evaluation (Exhibit C); Monticello Monitor Placement Evaluation (Exhibit D).

[6] 81 Fed. Reg. at 89,871.

[7] *See* EPA, *Technical Support Document, Texas, Area Designations for the 2010 SO_2 Primary National Ambient Air Quality Standard*, Dock. ID EPA-HQ-OAR-2014-0464-0144 at 192 ("Texas TSD"); Texas Supp. TSD at 18.

[8] *See* EPA, *Air Markets Program Data*, https://ampd.epa.gov/ampd/ (last visited Feb. 13, 2017).

[9] Texas TSD at 156; Texas Supp. TSD at 62.

22,928 tons and in 2016 only 25,471 tons, as reported in CAMD.[10] Maximum daily emissions at Luminant's plants have also declined substantially in more recent years, as reflected in CAMD.

Not only did EPA's Final Rule rely on data that does not reflect recent emission declines, EPA relied heavily on modeling that was not subject to public comment. In the Final Rule, EPA relied heavily on "Sierra Club's 2016 modeling,"[11] but that modeling was submitted on the last day of the public comment period (March 31, 2016), and "Sierra Club's 2016 modeling" for Texas areas was not even posted by EPA to the electronic docket.[12] Thus, neither Luminant nor the State of Texas had the opportunity to comment on that modeling, which was the primary basis for EPA's Final Rule.

In light of the more recent data, EPA should grant reconsideration of the Final Rule and approve TCEQ's proposed plans for installation of monitors in the relevant areas. This will allow TCEQ the opportunity to provide additional data that is a more reliable and accurate representation of the air quality in the relevant areas. Such an approach will be consistent with EPA's previously stated preference for monitoring data, rather than modeling predictions, in making NAAQS designations. Such an approach will also be consistent with the goals of the CAA, which "gives great deference to governors' recommendations for areas within their states . . . ." *Pennsylvania Dep't of Envtl. Prot. v. EPA*, 429 F.3d 1125, 1129 (D.C. Cir. 2005).

b. EPA should reconsider the Final Rule based on EPA's failure to provide public notice and opportunity for comment on EPA's findings related to venue

EPA should also reconsider the Final Rule because there was no opportunity for the public to comment on EPA's conclusions as to proper venue for judicial review. For the first time in the Final Rule, EPA found its action, which addressed only four areas in Texas, to be "nationally applicable" and further found its action was "based on a determination of nationwide scope and effect." 81 Fed. Reg. at 89,875. Not only did Luminant not have an opportunity to comment on these conclusions (because they were not introduced in the proposed rule), but EPA's approach in the Final Rule is in direct conflict with binding Fifth Circuit precedent. The Fifth Circuit, which is the proper venue for judicial review of the Final Rule, has held:

> Section 7607(b)(1) divides challenges into three general categories. Petitions for review of nationally applicable actions may only be filed in the D.C. Circuit. Petitions for review of locally or regionally applicable actions may only be filed in the regional circuit courts of appeal. Petitions for review of locally or regionally applicable actions based on a determination that has nationwide scope or effect may only be filed in the D.C. Circuit.

Texas v. EPA, 829 F.3d 405, 418 (5th Cir. 2016) (citing *Texas v. EPA*, No. 10-60961, 2011 WL 710598, at *3 (5th Cir. Feb. 24, 2011)). Therefore, a rule cannot be both "nationally applicable" and "based on a determination of

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[10] *See* EPA, *Air Markets Program Data*, https://ampd.epa.gov/ampd/ (last visited Feb. 13, 2017).

[11] Texas Supp. TSD at 62; *see also* 81 Fed. Reg. at 89,873.

[12] Sierra Club's Comments on EPA Responses to Certain State Designation Recommendations for the 2010 Sulfur Dioxide National Ambient Air Quality Standard: Notice of Availability and Public Comment Period, Dock. ID EPA-HQ-OAR-2014-0464-0332 (Mar. 31, 2016) (Appendices A-E and I: Colorado, Maryland, Missouri, Ohio, Indiana and Texas).

nationwide scope or effect," as EPA claims to have found in the Final Rule, because the latter is only possible when a rule is "locally or regionally applicable." Moreover, a locally or regionally applicable rule can only be "based on a determination of nationwide scope or effect," "[1] ***[i]f*** such action ***is based on*** a determination of nationwide scope or effect ***and*** [2] ***if*** in taking such action the Administrator finds and publishes that such action is based on such a determination." 42 U.S.C. § 7607(b)(1) (emphasis added). "[B]oth criteria must be satisfied to transfer venue from the appropriate regional circuit to the D.C. Circuit." *Texas*, 829 F.3d at 420.

Because EPA's Final Rule relates only to areas within the State of Texas, the rule is, on its face, locally or regionally applicable. As a result, the Final Rule by definition is not "nationally applicable." Further, despite EPA's finding, the Final Rule is not, in fact, based on any determination that is of nationwide scope or effect. EPA based its designations "on a number of intensely factual determinations." *See id.* at 421; *see generally* Texas TSD. None of these area-specific determinations has a nationwide scope or effect.

EPA claims that "this action supplements the June 30, 2016 final action taken by the EPA," where EPA concluded its action there was "nationally applicable" and was based on a determination that was of "nationwide scope and effect." 81 Fed. Reg. at 89,875. But that other final action is independent of EPA's Final Rule for Texas, which addresses Texas areas only. Moreover, even if the two separate actions were somehow related, that would not cure EPA's failure to provide notice and opportunity to comment on EPA's venue findings. In that other rulemaking, EPA similarly announced its conclusions for the first time in its final rule and did not provide for an opportunity for the public to comment on them. *Compare* 81 Fed. Reg. 10,563 (Mar. 1, 2016) *with* 81 Fed. Reg. 45,039 (July 12, 2016).

Because EPA did not propose any findings about venue in the proposed rule here, it was impracticable to raise an objection within the time allowed for public comment. Accordingly, EPA should grant Luminant's petition for reconsideration so that EPA's findings may be subject to public notice and comment.

II. EPA should grant an administrative stay of the Final Rule's effective date

EPA should also immediately grant an administrative stay of the Final Rule's effective date pursuant to the APA, 5 U.S.C. § 705, or, in the alternative, pursuant to the CAA, 42 U.S.C. § 7607(d)(7)(B). Under the APA, "[w]hen an agency finds that justice so requires, it may postpone the effective date of action taken by it, pending judicial review." 5 U.S.C. § 705. Under the CAA, "[t]he effectiveness of the rule may be stayed during such reconsideration . . . by the Administrator . . . for a period not to exceed three months." 42 U.S.C. § 7607(d)(7)(B).

A stay of the effective date of the Final Rule is appropriate under both standards, but the facts here call for a stay under the APA pending judicial review and the implementation of TCEQ's monitoring plans, whichever is later. A stay is permitted under the APA "[r]egardless of whether [the stay request] meet[s] the requirements of Section 307(d)(7)(b)[.]" 46 Fed. Reg. 8,581, 8,582 n.1 (Jan. 27, 1981). To qualify for a stay under Section 705 of the APA, only two conditions must be satisfied: (1) judicial review must be pending and (2) when "justice so requires" the stay. 5 U.S.C. § 705. A stay issued under the APA is not limited to three months, and EPA has used its authority under the APA to "postpone" the effective date of a rule indefinitely. *See, e.g.*, 75 Fed. Reg. 27,643

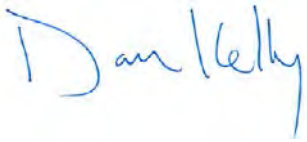
(May 18, 2010); 61 Fed. Reg. 28,508 (June 5, 1996); 56 Fed. Reg. 42,874 (Sept. 5, 1991). Here, Luminant does not seek a stay of the effective date indefinitely. Rather, Luminant seeks a stay of the effective date pending judicial review and until TCEQ is able to implement its monitoring plans to collect sufficient monitoring data to accurately characterize the air quality in the Texas areas at issue, whichever is later.

The conditions for stay of the Final Rule's effective date under the APA are met here. Petitions for judicial review have been filed by the State of Texas and Luminant. *See State of Texas et al. v. EPA et al.*, No. 17-60088 (5th Cir.). Further, justice requires a stay. The impact of a nonattainment designation, as EPA has made here, is significant. A nonattainment designation triggers a requirement for the state to develop a nonattainment state implementation plan ("SIP"). 42 U.S.C. § 7502(b). Absent a stay of the effective date, Texas would have to commit significant resources to developing a nonattainment SIP. Additionally, because of such designation, sources in the areas at issue may be required to adopt additional emission controls and permit limits. This would stifle economic development and growth in these areas. Given the recent declines in SO_2 emissions in these areas, it would be particularly inequitable to force TCEQ to needlessly expend resources to develop and implement a SIP revision that is not necessary. It is imperative that TCEQ have the ability to collect real world data to support proper designations prior to requiring sources to commit significant resources for controls and adopt burdensome restrictions in their permits.

A stay is particularly necessary here, where EPA has broken from its standard practice of setting the effective date of a rule for 60 days after publication, as it did in its previous SO_2 designations. 81 Fed. Reg. at 45,039. Here, EPA set the effective date of the Final Rule for 30 days after publication, making the effective date January 12, 2017, rather than February 13, 2017. Importantly, on January 20, 2017, the Assistant to the President and Chief of Staff issued a memorandum to the heads of all agencies directing that for "regulations that have been published in the [Federal Register] but have not taken effect, as permitted by applicable law, [agencies should] temporarily postpone their effective date for 60 days from the date of th[e] memorandum . . . for the purpose of reviewing questions of fact, law, and policy they raise." Reince Priebus, Memorandum for the Heads and Acting Heads of Executive Departments and Agencies, 82 Fed. Reg. 8,346 (Jan. 24, 2016). The Final Rule is not directly subject to the Priebus Memo, but the same principles apply here and call for a stay of the Final Rule's effective date. Here, there are substantial "questions of fact, law, and policy" that warrant a stay of the effective date and a review by the President's appointees. Such questions of fact, law, and policy include whether EPA properly relied on Sierra Club's modeling rather than promptly moving forward with TCEQ's monitoring plan in an effort to obtain monitoring data. In light of the new administration's desire to review rules that involve substantial questions, in addition to the significant burdens that will result from the flawed designations, "justice . . . requires" a stay of the Final Rule.

For all these reasons, pursuant to the APA and the CAA, EPA should grant Luminant's petition for reconsideration and immediately issue an administrative stay of the Final Rule's effective date. Thank you for your consideration of our request, and please contact me if I can provide any further information.

Sincerely,



Daniel Jude Kelly
VP & Associate General Counsel

cc: Samuel J. Coleman, Acting Administrator, EPA Region 6 (via email at coleman.sam@epa.gov)
Sarah Dunham, Acting Assistant Administrator, Office of Air and Radiation (via email at dunham.sarah@epa.gov)
Steve Page, Director, Office of Air Quality Planning and Standards (via email at page.steve@epa.gov)
Liz Etchells, Office of Air Quality Planning and Standards (via email at etchells.elizabeth.epa.gov)

Exhibit A

IN THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

LUMINANT GENERATION COMPANY LLC, BIG BROWN POWER COMPANY LLC, SANDOW POWER COMPANY LLC, and LUMINANT MINING COMPANY LLC	)	
Petitioners,	)	**Case No. _____**
v.	)	
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY and CATHERINE McCABE, Acting Administrator, United States Environmental Protection Agency	)	
Respondents.	)	

PETITION FOR REVIEW

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Counsel for Petitioners Luminant Generation Company LLC, Big Brown Power Company LLC, Sandow Power Company LLC, and Luminant Mining Company LLC

CERTIFICATE OF INTERESTED PERSONS

The undersigned counsel of record certifies that the following listed persons and entities as described in the fourth sentence of Fifth Circuit Rule 28.2.1 have an interest in the outcome of this case. These representations are made in order that the judges of this court may evaluate possible disqualification or recusal.

- Balch & Bingham LLP (Counsel for Petitioners)
- Big Brown Power Company LLC (Petitioner)
- Coleman, Sam (Acting Regional Administrator for Respondent United States Environmental Protection Agency)
- Gidiere, P. Stephen III (Counsel for Petitioners)
- Kelly, Daniel J. (Counsel for Petitioners and Vice President & Associate General Counsel for Vistra Energy Corp.)
- Luminant Generation Company LLC (Petitioner)
- Luminant Mining Company LLC (Petitioner)
- McCabe, Catherine, Acting Administrator, United States Environmental Protection Agency (Respondent)
- Minoli, Kevin (Acting General Counsel for Respondent United States Environmental Protection Agency)
- Moore, C. Grady III (Counsel for Petitioners)
- Moore, Stephanie Zapata (Counsel for Petitioners and Vice President & Associate General Counsel for Vistra Energy Corp.)
- Sandow Power Company LLC (Petitioner)
- Sessions, Jeff, Attorney General, U.S. Department of Justice (Counsel for Respondents)

- United States Environmental Protection Agency (Respondent)
- Vistra Asset Company LLC (Parent company of Petitioners)
- Vistra Energy Corp. (Parent company of Petitioners)
- Vistra Intermediate Company LLC (Parent company of Petitioners)
- Vistra Operations Company LLC (Parent company of Petitioners)
- Wood, Jeffrey, Acting Assistant Attorney General, Environment and Natural Resources Division, U.S. Department of Justice (Counsel for Respondents)

Respectfully submitted,

s/ P. Stephen Gidiere III
Counsel for Petitioners

IN THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

LUMINANT GENERATION COMPANY LLC, BIG BROWN POWER COMPANY LLC, SANDOW POWER COMPANY LLC, and LUMINANT MINING COMPANY LLC	)	
Petitioners,	)	**Case No. _____**
v.	)	
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY and CATHERINE McCABE, Acting Administrator, United States Environmental Protection Agency	)	
Respondents.	)	

PETITION FOR REVIEW

Pursuant to Federal Rule of Appellate Procedure 15 and Section 307(b) of the Clean Air Act, 42 U.S.C. § 7607(b), Luminant Generation Company LLC, Big Brown Power Company LLC, Sandow Power Company LLC, and Luminant Mining Company LLC (collectively, "Luminant Petitioners") file this petition for review of the U.S. Environmental Protection Agency's ("EPA") final rule entitled *Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard—Supplement to Round 2 for Four Areas in Texas: Freestone and Anderson Counties,*

Milam County, Rusk and Panola Counties, and Titus County and issued on December 13, 2016 ("Final Rule").[1] *See* 81 Fed. Reg. 89,870 (Dec. 13, 2016).

Jurisdiction and venue for this petition are proper in this Court under 42 U.S.C. § 7607(b). The Final Rule applies to areas only in the State of Texas and in no other state and is based on determinations specific to those areas. The Final Rule is thus a locally or regionally applicable final action of the EPA Administrator and is not "nationally applicable," nor is it based on a determination of "nationwide scope or effect." 42 U.S.C. § 7607(b). This petition for review is timely filed within 60 days of the date of publication in the Federal Register. *Id.*

Dated: February 10, 2017

Respectfully submitted,

s/ P. Stephen Gidiere III
Counsel for Petitioners

Counsel for Petitioners:

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[1] Pursuant to Fifth Circuit Rule 15.1, a copy of the Final Rule is attached to this petition.

CERTIFICATE OF SERVICE

Pursuant to Federal Rule of Appellate Procedure 15(c), I hereby certify that I have this day caused the foregoing documents to be served by first-class mail, postage prepaid, on February 10, 2017, upon the following:

Jeff Sessions
Attorney General
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Jeffrey Wood
Acting Assistant Attorney General
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Suite 1200
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Dallas, Texas 75202

Dated: February 10, 2017

s/ P. Stephen Gidiere III
Counsel for Petitioners

appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

B. Submission to Congress and the Comptroller General

The Congressional Review Act, 5 U.S.C. 801 *et seq.,* as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2).

In addition, this rulemaking determining that the Delaware County Area has attained the 2012 annual $PM_{2.5}$ NAAQS does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the state, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

C. Petitions for Judicial Review

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by February 13, 2017. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. Parties with objections to this direct final rule are encouraged to file a comment in response to the parallel notice of proposed rulemaking for this action published in the proposed rules section of this **Federal Register**, rather than file an immediate petition for judicial review of this direct final rule, so that EPA can withdraw this direct final rule and address the comment in the proposed rulemaking action.

This determination of attainment of the 2012 annual $PM_{2.5}$ NAAQS for the Delaware County nonattainment area may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2)).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Particulate matter, Reporting and recordkeeping requirements.

Dated: November 22, 2016.

Shawn M. Garvin,

Regional Administrator, Region III.

40 CFR part 52 is amended as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

■ 1. The authority citation for part 52 continues to read as follows:

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

Subpart NN—Pennsylvania

■ 2. In § 52.2059, add paragraph (u) to read as follows:

§ 52.2059 Control strategy: Particulate matter.

* * * * *

(u) *Determination of attainment.* EPA has determined based on 2013 to 2015 ambient air quality monitoring data, that the Delaware County, Pennsylvania moderate nonattainment area has attained the 2012 annual fine particulate matter ($PM_{2.5}$) primary national ambient air quality standard (NAAQS). This determination, in accordance with 40 CFR 51.1015, suspends the requirements for this area to submit an attainment demonstration, associated reasonably available control measures, a reasonable further progress plan, contingency measures, and other planning state implementation plan revisions related to attainment of the standard for as long as this area continues to meet the 2012 annual $PM_{2.5}$ NAAQS.

[FR Doc. 2016–29751 Filed 12–12–16; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 81

[EPA–HQ–OAR–2014–0464; FRL–9956–10–OAR]

Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard—Supplement to Round 2 for Four Areas in Texas: Freestone and Anderson Counties, Milam County, Rusk and Panola Counties, and Titus County

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This rule establishes the initial air quality designations for four areas in Texas for the 2010 primary sulfur dioxide (SO_2) National Ambient Air Quality Standard (NAAQS). The Environmental Protection Agency (EPA) is designating three of the areas as nonattainment because they do not meet the NAAQS. One area is being designated unclassifiable because it cannot be classified on the basis of available information as meeting or not meeting the NAAQS. The designations are based on the weight of evidence for each area, including available air quality monitoring data and air quality modeling. For the areas designated nonattainment by this rule, the Clean Air Act (CAA) directs the state of Texas to undertake certain planning and pollution control activities to attain the SO_2 NAAQS as expeditiously as practicable. This action is a supplement to the final rule addressing the second round of area designations for the 2010 SO_2 NAAQS, which the EPA Administrator signed on June 30, 2016.

DATES: The effective date of this rule is January 12, 2017.

ADDRESSES: The EPA has established a docket for the second round of designations, including this supplemental action, under Docket ID No. EPA–HQ–OAR–2014–0464. All documents in the docket are listed in the *http://www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, *e.g.,* Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available electronically in *http://www.regulations.gov.*

In addition, the EPA has established a Web site for the 2010 SO_2 NAAQS designations rulemakings at: *https://*

www.epa.gov/sulfur-dioxide-designations. The Web site includes the EPA's final SO_2 designations, as well as state and tribal initial recommendation letters, the EPA's letters announcing modifications to those recommendations, technical support documents, responses to comments and other related technical information.

FOR FURTHER INFORMATION CONTACT: For general questions concerning this supplemental action, please contact Liz Etchells, U.S. EPA, Office of Air Quality Planning and Standards, Air Quality Planning Division, C539–04, Research Triangle Park, NC 27711, telephone (919) 541–0253, email at *etchells.elizabeth@epa.gov.*

SUPPLEMENTARY INFORMATION:

U.S. EPA Regional Office Contacts: Region VI—Jim Grady, telephone (214) 665–6745, email at *grady.james@epa.gov.*

The public may inspect the rule and area-specific technical support information at the following location: Air Planning Section, EPA Region VI, 1445 Ross Avenue, Dallas, TX 75202.

Table of Contents

The following is an outline of the preamble.

I. Preamble Glossary of Terms and Acronyms

The following are abbreviations of terms used in the preamble.

APA Administrative Procedure Act
CAA Clean Air Act
CFR Code of Federal Regulations
DC District of Columbia
EO Executive Order
EPA Environmental Protection Agency
FR Federal Register
NAAQS National Ambient Air Quality Standards
NTTAA National Technology Transfer and Advancement Act
OMB Office of Management and Budget
SO_2 Sulfur Dioxide
SO_X Sulfur Oxides
RFA Regulatory Flexibility Act
UMRA Unfunded Mandate Reform Act of 1995
TAR Tribal Authority Rule
TAD Technical Assistance Document
TSD Technical Support Document
US United States

II. What is the purpose of this supplemental action?

The purpose of this final action is to announce and promulgate initial air quality designations for four areas in Texas for the 2010 primary SO_2 NAAQS, in accordance with the requirements of the CAA. The EPA is designating three of these areas as nonattainment, and one area as unclassifiable. As discussed in Section IV of this document, the EPA is designating areas for the 2010 SO_2 NAAQS in multiple rounds under a court-ordered schedule pursuant to a consent decree. The EPA completed the first round of SO_2 designations in an action signed by the Administrator on July 25, 2013 (78 FR 47191; August 5, 2013). In that action, the EPA designated 29 areas in 16 states as nonattainment, based on air quality monitoring data.

The court order required the EPA Administrator to sign a notice designating areas in a second round that contained sources meeting certain criteria no later than July 2, 2016. *See Sierra Club and NRDC* v. *McCarthy,* No. 3:13–cv–3953–SI (N.D. Cal.) (March 2, 2015). The four areas in Texas covered by this action met those criteria, and the EPA responded to state recommendations for Round 2 designations, including Texas' recommendations for these four areas, on February 11, 2016 (Letter from Ron Curry, EPA Region 6 Administrator, to Governor of Texas, Honorable Greg Abbott). In the second round of SO_2 designations signed on June 30, 2016, the EPA designated 61 areas in 24 states (including eight other areas in Texas): four nonattainment areas, 41 unclassifiable/attainment areas and 16 unclassifiable areas (81 FR 45039; July 12, 2016). However, by a series of stipulations of the parties in *Sierra Club and NRDC* v. *McCarthy* and orders of the Court, the deadline to promulgate designations was extended to November 29, 2016, for the four areas in Texas that are the subject of this supplemental action. This action to designate four Texas areas further discharges the EPA's duty to issue the second round of SO_2 designations, and uses the same administrative record as supported by the action signed on June 30, 2016, that addressed eight other Texas areas and other areas in the United States, as supplemented by additional materials further addressing these four Texas areas.

In this supplementary designation action, the list of areas being designated in Texas and the boundaries of each area appear in the tables within the regulatory text at the end of this notice. These designations are based on the EPA's technical assessment of and conclusions regarding the weight of evidence for each area, including but not limited to available air quality monitoring data or air quality modeling. With respect to air quality monitoring data, the EPA considered data from the most recent calendar years 2012–2015. In the modeling runs conducted by industry and members of the public, the air quality impacts of the actual emissions for the 3-year periods 2012–2014 or 2013–2015 were assessed.

For the areas being designated nonattainment, the CAA directs states to develop and submit to the EPA State Implementation Plans within 18 months of the effective date of this final rule that meet the requirements of sections 172(c) and 191–192 of the CAA and provide for attainment of the NAAQS as expeditiously as practicable, but not later than 5 years from the effective date of this final rule. We also note that under the EPA's SO_2 Data Requirements Rule in 40 CFR part 51, subpart BB (80 FR 51052; August 21, 2015), the EPA expects to receive additional air quality characterization for the one area in Milam County, Texas, designated unclassifiable in this action, and the agency will consider such data, as appropriate, in future actions.

III. What is the 2010 SO_2 NAAQS and what are the health concerns that it addresses?

The Administrator signed a final rule revising the primary SO_2 NAAQS on June 2, 2010. The rule was published in the **Federal Register** on June 22, 2010 (75 FR 35520) and became effective on August 23, 2010. Based on the Administrator's review of the air quality criteria for oxides of sulfur and the primary NAAQS for oxides of sulfur as measured by SO_2, the EPA revised the primary SO_2 NAAQS to provide requisite protection of public health with an adequate margin of safety. Specifically, the EPA established a new 1-hour SO_2 standard at a level of 75 parts per billion (ppb), which is met at an ambient air quality monitoring site when the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations is less than or equal to 75 ppb, as determined in accordance with Appendix T of 40 CFR part 50. 40 CFR 50.17(a)–(b). The EPA also established provisions to revoke both the existing 24-hour and annual primary SO_2 standards, subject to certain conditions. 40 CFR 50.4(e).

Additional information regarding the current scientific evidence on the health impacts of short-term exposures to SO_2 is provided in the **Federal Register** notice containing the final rule for the second round of SO_2 designations for other areas that was signed on June 30, 2016. *See* 81 FR 45041.

IV. What are the CAA requirements for air quality designations and what action has the EPA taken to meet these requirements?

After the EPA promulgates a new or revised NAAQS, the EPA is required to designate all areas of the country as either ''nonattainment,'' ''attainment,'' or ''unclassifiable,'' for that NAAQS pursuant to section 107(d)(1) of the CAA. Section 107(d)(1)(A)(i) of the CAA defines a nonattainment area as ''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 standard for the pollutant.'' If an area meets either prong of this definition, then the EPA is obligated to designate the area as ''nonattainment.'' This provision also defines an attainment area as any area other than a nonattainment area that meets the NAAQS and an unclassifiable area as any area that cannot be classified on the basis of available information as meeting or not meeting the NAAQS.

Additional information regarding the process for designating areas following promulgation of a new or revised NAAQS pursuant to section 107(d) of the CAA and how the EPA is applying this process to the designation of areas under the 2010 SO_2 NAAQS is provided in the final rule addressing the second round of SO_2 designations for other areas signed on June 30, 2016. *See* 81 FR 45041. For this supplemental action, the EPA reiterates that CAA section 107(d) provides the agency with discretion to determine how best to interpret the terms in the definition of a nonattainment area (*e.g.,* ''contributes to'' and ''nearby'') for a new or revised NAAQS, given considerations such as the nature of a specific pollutant, the types of sources that may contribute to violations, the form of the standards for the pollutant, and other relevant information. In particular, the EPA's position is that the statute does not require the agency to establish bright line tests or thresholds for what constitutes ''contribution'' or ''nearby'' for purposes of designations.[1]

Similarly, the EPA's position is that the statute permits the EPA to evaluate the appropriate application of the term ''area'' to include geographic areas based upon full or partial county boundaries, as may be appropriate for a particular NAAQS. For example, CAA section 107(d)(1)(B)(ii) explicitly provides that the EPA can make modifications to designation recommendations for an area ''or portions thereof,'' and under CAA section 107(d)(1)(B)(iv) a designation remains in effect for an area ''or portion thereof'' until the EPA redesignates it.

As explained in more detail in the final rule addressing the second round of SO_2 designations for other areas, the EPA completed the first round of SO_2 designations for 29 areas on July 25, 2013 (78 FR 47191), and intends to complete up to three more rounds of designations to address all remaining areas pursuant to a schedule contained in a consent decree and enforceable order entered by the U.S. District Court for the Northern District of California on March 2, 2015. *See* 81 FR 45042.

The court order specifies that in this second round of SO_2 designations the EPA must designate two groups of areas: (1) Areas that have newly monitored violations of the 2010 SO_2 NAAQS and (2) areas that contain any stationary sources that had not been announced as of March 2, 2015, for retirement and that, according to the EPA's Air Markets Database, emitted in 2012 either (i) more than 16,000 tons of SO_2, or (ii) more than 2,600 tons of SO_2 with an annual average emission rate of at least 0.45 pounds of SO_2 per one million British thermal units (lbs SO_2/mmBTU).

On March 20, 2015, the EPA sent letters to Governors notifying them of the schedule for completing the remaining designations for the 2010 1-hour SO_2 NAAQS. The EPA offered states, including Texas, the opportunity to submit updated recommendations and supporting information for the EPA to consider for the affected areas. The EPA also notified states that the agency had updated its March 24, 2011, SO_2 designations guidance to support analysis of designations and boundaries for the next rounds of designations. All of the states, including Texas, with affected areas submitted updated designation recommendations.

In a letter dated February 11, 2016, the EPA notified Texas of its intended designation of twelve Round 2 areas, including the four areas in Texas addressed in this final notice, as either nonattainment, unclassifiable/attainment, or unclassifiable for the SO_2 NAAQS. Texas then had the opportunity to demonstrate why they believed the EPA's intended modification of their updated recommendations may be inappropriate. Although not required, as the EPA had done for the first round of SO_2 designations, the EPA also provided an opportunity for members of the public to comment on the EPA's February 2016 response letters. The EPA published a notice of availability and public comment period for the intended designation on March 1, 2016 (81 FR 10563). The public comment period closed on March 31, 2016. The updated recommendations, the EPA's February 2016 responses to those letters, any modifications, and the subsequent state and public comment letters, are in the docket for the Round 2 SO_2 designations at Docket ID No. EPA–HQ–OAR–2014–0464 and are available on the SO_2 designations Web site.

Before taking final action, however, the parties to *Sierra Club and NRDC* v. *McCarthy* filed the first in a series of joint stipulations extending the deadline for these four areas in Texas, out to November 29, 2016.[2] In the final rule signed on June 30, 2016, the EPA promulgated designations for the Round 2 areas for which no extensions in the deadline had been obtained (including the eight other Texas areas) and explained the ongoing process for completing SO_2 designations for all

[1] This view was confirmed in *Catawba County* v. *EPA,* 571 F.3d 20 (D.C. Cir. 2009).

[2] The parties to *Sierra Club and NRDC* v. *McCarthy* also filed a joint stipulation extending the Round 2 designation deadline for the Muskogee County Area in Oklahoma out to December 31, 2016.

areas of the country by December 31, 2020 (*see generally* 81 FR 45042–43).

In these supplemental Round 2 designations, and consistent with the extended deadline under the consent decree, the EPA must designate the four areas in Texas associated with the following sources by November 29, 2016: The Big Brown Steam Electric Station in the Freestone and Anderson Counties Area, the Sandow Power Station in the Milam County Area, the Martin Lake Electrical Station in the Rusk and Panola Counties Area, and the Monticello Steam Electric Station in the Titus County Area.

V. What guidance did the EPA issue and how did the EPA apply the statutory requirements and applicable guidance to determine area designations and boundaries?

Following entry of the March 2, 2015, court order, the EPA issued updated designations guidance through a March 20, 2015, memorandum from Stephen D. Page, Director, U.S. EPA, Office of Air Quality Planning and Standards, to Air Division Directors, U.S. EPA Regions 1–10 titled, ''Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard.'' As explained in the final rule addressing the second round of SO_2 designations for other areas signed on June 30, 2016, this guidance contains the factors the EPA intends to evaluate in determining the appropriate designations and associated boundaries for all remaining areas in the country, including: (1) Air quality characterization via ambient monitoring or dispersion modeling results; (2) emissions-related data; (3) meteorology; (4) geography and topography; and (5) jurisdictional boundaries. *See* 81 FR at 45043. Additional information regarding relevant guidance relied upon in designating the other second round areas and that is also used in this supplemental action is available in the previously issued final rule. *See id.*

VI. What air quality information has the EPA used for these designations?

To inform designations for the SO_2 NAAQS, 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's non-binding Monitoring Technical Assistance Document (TAD) and Modeling TAD contain scientifically sound recommendations on how air agencies should conduct such monitoring or modeling. For the SO_2 designations of the four Texas areas addressed in this supplemental action, the EPA is using the same approach taken for a number of areas designated in the final rule signed on June 30, 2016, and considering available air quality monitoring data from calendar years 2012–2015, and modeling submitted by the affected emissions sources and a public interest group. *See* 81 FR 45043. In the modeling runs, the impacts of the actual emissions for the 3-year periods 2012–2014 or 2013–2015 were considered. The 1-hour primary SO_2 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. The EPA has concluded that dispersion modeling shows that three Round 2 areas in Texas (portions of Freestone and Anderson Counties, portions of Rusk and Panola Counties, and portions of Titus County) are not meeting the 1-hour primary SO_2 standard and we are, therefore, designating these areas as nonattainment. Based on available information, the EPA has also concluded that it cannot determine whether one Round 2 area in Texas (Milam County) is or is not meeting the 1-hour primary SO_2 standard and whether the area contributes to a violation in a nearby area. Therefore, we are designating this area as unclassifiable. Details about the available information can be found in the supplemental technical support document in the docket for the Round 2 SO_2 designations at Docket ID No. EPA–HQ–OAR–2014–0464.

VII. How do the designations supplementing the Round 2 designations affect Indian country?

For the designations in four areas of Texas for the 2010 primary SO_2 NAAQS supplementing the Round 2 designations, the EPA is designating 3 state areas as nonattainment and 1 state area as unclassifiable. No areas of Indian country are being designated as part of this action.

VIII. Where can I find information forming the basis for this action and exchanges between the EPA, states and tribes related to this action?

Information providing the basis for this action can be found in several technical support documents (TSDs), a response to comments document (RTC) and other information in the docket. The TSDs, RTC, applicable EPA guidance memoranda and copies of correspondence regarding this process between the EPA and the states, tribes and other parties, are available for review at the EPA Docket Center listed above in the **ADDRESSES** section of this document and on the agency's SO_2 Designations Web site at *https://www.epa.gov/sulfur-dioxide-designations.* Area-specific questions can be addressed by the EPA Regional office (*see* contact information provided at the beginning of this notice).

IX. Environmental Justice Concerns

When the EPA establishes a new or revised NAAQS, the CAA requires the EPA to designate all areas of the U.S. as either nonattainment, attainment, or unclassifiable. This final action addresses designation determinations for four areas in Texas for the 2010 primary SO_2 NAAQS. Area designations address environmental justice concerns by ensuring that the public is properly informed about the air quality in an area. In locations where air quality does not meet the NAAQS, the CAA requires relevant state authorities to initiate appropriate air quality management actions to ensure that all those residing, working, attending school, or otherwise present in those areas are protected, regardless of minority and economic status.

X. Statutory and Executive Order Reviews

Upon promulgation of a new or revised NAAQS, the CAA requires the EPA to designate areas as attaining or not attaining the NAAQS. The CAA then specifies requirements for areas based on whether such areas are attaining or not attaining the NAAQS. In this final rule, the EPA assigns designations to selected areas as required.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is exempted from the Office of Management and Budget because it responds to the CAA requirement to promulgate air quality designations after promulgation of a new or revised NAAQS.

B. Paperwork Reduction Act (PRA)

This action does not impose an information collection burden under the PRA. This action responds to the requirement to promulgate air quality designations after promulgation of a new or revised NAAQS. This requirement is prescribed in the CAA section 107 of title 1. This action does not contain any information collection activities.

C. Regulatory Flexibility Act (RFA)

This final rule is not subject to the RFA. The RFA applies only to rules subject to notice-and-comment rulemaking requirements under the Administrative Procedure Act (APA), 5 U.S.C. 553, or any other statute. This rule is not subject to notice-and-comment requirements under the APA but is subject to the CAA section 107(d)(2)(B) which does not require a notice-and-comment rulemaking to take this action.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandates as described by URM, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments or the private sector.

E. Executive Order 13132: Federalism

This final action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications, as specified in Executive Order 13175. This action concerns the designation of certain areas in the U.S. for the 2010 primary SO_2 NAAQS. The CAA provides for states and eligible tribes to develop plans to regulate emissions of air pollutants within their areas, as necessary, based on the designations. The Tribal Authority Rule (TAR) provides tribes the opportunity to apply for eligibility to develop and implement CAA programs, such as programs to attain and maintain the SO_2 NAAQS, but it leaves to the discretion of the tribe the decision of whether to apply to develop these programs and which programs, or appropriate elements of a program, the tribe will seek to adopt. This rule does not have a substantial direct effect on one or more Indian tribes. It does not create any additional requirements beyond those of the SO_2 NAAQS. This rule establishes the designations for certain areas of the country for the SO_2 NAAQS, but no areas of Indian country are being designated in this action. Furthermore, this rule does not affect the relationship or distribution of power and responsibilities between the federal government and Indian tribes. The CAA and the TAR establish the relationship of the federal government and tribes in developing plans to attain the NAAQS, and this rule does nothing to modify that relationship. Thus, Executive Order 13175 does not apply.

Although Executive Order 13175 does not apply to this rule, after the EPA promulgated the 2010 primary SO_2 NAAQS, the EPA communicated with tribal leaders and environmental staff regarding the designations process. The EPA also sent individualized letters to all federally recognized tribes to explain the designation process for the 2010 primary SO_2 NAAQS, to provide the EPA designations guidance, and to offer consultation with the EPA. The EPA provided further information to tribes through presentations at the National Tribal Forum and through participation in National Tribal Air Association conference calls. The EPA also sent individualized letters to all federally recognized tribes that submitted recommendations to the EPA about the EPA's intended designations for the SO_2 standard and offered tribal leaders the opportunity for consultation. These communications provided opportunities for tribes to voice concerns to the EPA about the general designations process for the 2010 primary SO_2 NAAQS, as well as concerns specific to a tribe, and informed the EPA about key tribal concerns regarding designations as the rule was under development. For this supplemental round of SO_2 designations action, the EPA sent additional letters to tribes that could potentially be affected and offered additional opportunities for participation in the designations process. The communication letters to the tribes are provided in the dockets for Round 1 designations (Docket ID No. EPA–HQ–OAR–2012–0233) and Round 2 designations (Docket ID No. EPA–HQ–OAR–2014–0464).

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The action is not subject to Executive Order 13045 because it is not an economically significant regulatory action as defined in Executive Order 12866. While not subject to the Executive Order, this final action may be especially important for asthmatics, including asthmatic children, living in SO_2 nonattainment areas because respiratory effects in asthmatics are among the most sensitive health endpoints for SO_2 exposure. Because asthmatic children are considered a sensitive population, the EPA evaluated the potential health effects of exposure to SO_2 pollution among asthmatic children as part of the EPA's prior action establishing the 2010 primary SO_2 NAAQS. These effects and the size of the population affected are summarized in the EPA's final SO_2 NAAQS rules. *See http://www3.epa.gov/ttn/naaqs/standards/so2/fr/20100622.pdf.*

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act (NTTAA)

This action does not involve technical standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and or indigenous peoples, as specified Executive Order 12898 (59 FR 7629, February 16, 1994). The documentation for this decision is contained in Section IX of this document.

K. Congressional Review Act (CRA)

The CRA, 5 U.S.C. 801 *et seq.,* as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the U.S. The EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives and the Comptroller General of the U.S. prior to publication of the rule in the **Federal Register**. A major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2). This rule will be effective January 12, 2017.

L. Judicial Review

Section 307 (b) (1) of the CAA indicates which Federal Courts of Appeal have venue for petitions for review of final actions by the EPA. This section provides, in part, that petitions for review must be filed in the Court of Appeals for the District of Columbia Circuit: (i) When the agency action consists of ''nationally applicable

regulations promulgated, or final actions taken, by the Administrator,'' or (ii) when such action is locally or regionally applicable, if ''such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.''

This final action designating areas for the 2010 primary SO_2 NAAQS is ''nationally applicable'' within the meaning of section 307(b)(1). As explained in the preamble, this final action supplements the June 30, 2016 final action taken by the EPA to issue a second round of designations for areas across the U.S. for the 2010 primary SO_2 NAAQS. EPA determined the June 30, 2016 final action was ''nationally applicable'' within the meaning of section 307(b)(1). 81 FR 45045. The rulemaking docket, EPA–HQ–OAR–2014–0464, is the same docket for both the June 30, 2016 action and for this supplemental action, with the relevant difference being that in addition to the materials it contained regarding these four Texas areas generated through June 30, 2016—the date that action was signed by the Administrator—it now also contains the final technical support documents and responses to comments related to these four areas. Both the June 30, 2016 action and this supplemental action were proposed in a single March 1, 2016, notice announcing the EPA's intended Round 2 designations and were taken to discharge a duty under the court order to issue a round of designations of areas with sources meeting common criteria in the court order. As explained in the June 30, 2016 final rule, at the core of that 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. *Id.* Accordingly, the Administrator has determined that this supplemental final action, which results from the same proposed action as the June 30, 2016 final action, is nationally applicable and is hereby publishing that finding in the **Federal Register**.

For the same reasons, the Administrator also is finding that this supplemental final action is based on a determination of nationwide scope and effect for the purposes of section 307(b)(1). As previously explained in the June 30, 2016 final action, in the report on the 1977 Amendments that revised section 307(b)(1) of the CAA, Congress noted that the Administrator's determination that an action is of ''nationwide scope or effect'' would be appropriate for any action that has a scope or effect beyond a single judicial circuit. H.R. Rep. No. 95–294 at 323, 324, *reprinted* in 1977 U.S.C.C.A.N. 1402–03. 81 FR 45045. Here, the June 30, 2016 final action and this supplemental final action combined issue designations in 65 areas in 24 states and extend to numerous judicial circuits. In these circumstances, section 307(b)(1) and its legislative history calls for the Administrator to find the action to be of ''nationwide scope or effect'' and for venue to be in the D.C. Circuit. Therefore, like the June 30, 2016 final action it supplements, *see* 81 FR at 45045, this final action is based on a determination by the Administrator of nationwide scope or effect, and the Administrator is hereby publishing that finding in the **Federal Register**.

Thus, any petitions for review of these final designations must be filed in the Court of Appeals for the District of Columbia Circuit within 60 days from the date final action is published in the **Federal Register**.

List of Subjects in 40 CFR Part 81

Environmental protection, Air pollution control, National parks, Wilderness areas.

Dated: November 29, 2016.

Gina McCarthy,

Administrator.

For the reasons set forth in the preamble, 40 CFR part 81 is amended as follows:

PART 81—DESIGNATIONS OF AREAS FOR AIR QUALITY PLANNING PURPOSES

■ 1. The authority citation for part 81 continues to read as follows:

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

Subpart C—Section 107 Attainment Status Designations

■ 2. Section 81.344 is amended by revising the table titled ''Texas—2010 Sulfur Dioxide NAAQS (Primary)'' to read as follows:

§ 81.344 Texas.

* * * * *

TEXAS—2010 SULFUR DIOXIDE NAAQS (PRIMARY)

Designated area	Designation	
	Date	Type
Freestone and Anderson Counties, TX [1]	1/12/17	Nonattainment.
Freestone County (part) and Anderson County (part)		
Those portions of Freestone and Anderson Counties encompassed by the rectangle with the vertices using Universal Traverse Mercator (UTM) coordinates in UTM zone 14 with datum NAD83 as follows:		
(1) Vertices—UTM Easting (m) 766752.69, UTM Northing (m) 3536333.0,		
(2) vertices—UTM Easting (m) 784752.69, UTM Northing (m) 3536333.0,		
(3) vertices—UTM Easting (m) 784752.69, UTM Northing (m) 3512333.0,		
(4) vertices—UTM Easting (m) 766752.69, UTM Northing (m) 3512333.0		
Rusk and Panola Counties, TX [1]	1/12/17	Nonattainment.
Rusk County (part) and Panola County (part)		
Those portions of Rusk and Panola Counties encompassed by the rectangle with the vertices using Universal Traverse Mercator (UTM) coordinates in UTM zone 15 with datum NAD83 as follows:		
(1) Vertices—UTM Easting (m) 340067.31, UTM Northing (m) 3575814.75		
(2) vertices—UTM Easting (m) 356767.31, UTM Northing (m) 3575814.75		
(3) vertices—UTM Easting (m) 356767.31, UTM Northing (m) 3564314.75		
(4) vertices—UTM Easting (m) 340067.31, UTM Northing (m) 3564314.75		
Titus County, TX [1]	1/12/17	Nonattainment.
Titus County (part)		
That portion of Titus County encompassed by the rectangle with the vertices using Universal Traverse Mercator (UTM) coordinates in UTM zone 15 with datum NAD83 as follows:		

TEXAS—2010 SULFUR DIOXIDE NAAQS (PRIMARY)—Continued

Designated area	Designation	
	Date	Type
(1) Vertices—UTM Easting (m) 304329.030, UTM Northing (m) 3666971.0, (2) vertices—UTM Easting (m) 311629.030, UTM Northing (m) 3666971.0, (3) vertices—UTM Easting (m) 311629.03, UTM Northing (m) 3661870.5, (4) vertices—UTM Easting (m) 304329.03, UTM Northing (m) 3661870.5		
Milam County, TX [1]	1/12/17	Unclassifiable.
Milam County, TX		
Potter County, TX [1]	9/12/16	Unclassifiable.
Potter County, TX		
Atascosa County, TX [1]	9/12/16	Unclassifiable/Attainment.
Atascosa County, TX		
Fort Bend County, TX [1]	9/12/16	Unclassifiable/Attainment.
Fort Bend County		
Goliad County, TX [1]	9/12/16	Unclassifiable/Attainment.
Goliad County		
Lamb County, TX [1]	9/12/16	Unclassifiable/Attainment.
Lamb County		
Limestone County, TX [2]	9/12/16	Unclassifiable/Attainment.
Limestone County		
McLennan County, TX [2]	9/12/16	Unclassifiable/Attainment.
McLennan County, TX		
Robertson County, TX [2]	9/12/16	Unclassifiable/Attainment.
Robertson County		

[1] Excludes Indian country located in each area, if any, unless otherwise specified.
[2] Includes Indian country located in each area, if any, unless otherwise specified.

* * * * *

[FR Doc. 2016–29561 Filed 12–12–16; 8:45 am]
BILLING CODE 6560–50–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 622

[Docket No. 130312235–3658–02]

RIN 0648–XF058

Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Re-Opening of the Commercial Sector for South Atlantic Vermilion Snapper

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Temporary rule; re-opening.

SUMMARY: NMFS announces the re-opening of the commercial sector for vermilion snapper in the exclusive economic zone (EEZ) of the South Atlantic through this temporary rule. The most recent commercial landing data for vermilion snapper indicate the commercial annual catch limit (ACL) for the July through December 2016 fishing season has not yet been reached. Therefore, NMFS re-opens the commercial sector for vermilion snapper in the South Atlantic EEZ for 2 days to allow the commercial ACL to be caught, while minimizing the risk of the commercial ACL being exceeded.

DATES: This rule is effective 12:01 a.m., local time, December 14, 2016, until 12:01 a.m., local time, December 16, 2016.

FOR FURTHER INFORMATION CONTACT: Mary Vara, NMFS Southeast Regional Office, telephone: 727–824–5305, email: *mary.vara@noaa.gov*.

SUPPLEMENTARY INFORMATION: The snapper-grouper fishery of the South Atlantic includes vermilion snapper and is managed under the Fishery Management Plan for the Snapper-Grouper Fishery of the South Atlantic Region (FMP). The FMP was prepared by the South Atlantic Fishery Management Council and is implemented by NMFS under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) by regulations at 50 CFR part 622.

The commercial ACL (equal to the commercial quota) for vermilion snapper in the South Atlantic is divided into separate quotas for two 6-month time periods each year, January through June and July through December. For the July through December 2016 period, the commercial quota is 388,703 lb (176,313 kg, gutted weight, 431,460 lb (195,707 kg), round weight), as specified in 50 CFR 622.190(a)(4)(ii)(D).

On July 1, 2016, the commercial fishing season opened for the second period of July through December for this fishing year. Under 50 CFR 622.191(a)(6)(ii), NMFS is required to reduce the commercial trip limit for vermilion snapper from 1,000 lb (454 kg), gutted weight, 1,110 lb (503 kg), round weight, when 75 percent of the respective fishing season commercial quota is reached or projected to be reached. Accordingly, on August 25, 2016 (81 FR 58411), NMFS published a temporary rule in the **Federal Register** to reduce the commercial trip limit for vermilion snapper in or from the EEZ of the South Atlantic for the July through December 2016 period to 500 lb (227 kg), gutted weight. The commercial trip limit reduction was effective at 12:01 a.m., local time, August 28, 2016.

Under 50 CFR 622.193(f)(1), NMFS is required to close the commercial sector for vermilion snapper when the

Exhibit B

Big Brown Steam Electric Monitor Placement Evaluation

Source Information

- Name: Big Brown Steam Electric Station (Big Brown) (Figure 2)
- Owner: Luminant Generation Company, LLC
- Facility function: electric generation
- Location: 31.81989, -96.05457, Texas Commission on Environmental Quality (TCEQ) Region 9, Freestone County, Texas
- Sulfur dioxide (SO_2) emissions data: 62,494 tons (2013), 57,460 tons (2014)
- Long-term emissions trend: decreasing, 15 percent (%) decrease from 2010 to 2014
- Emission profile: operational year-round
- Stack height(s): two stacks, S-1 and S-2, each 122 meters (m) high, currently active
- SO_2 emission controls: multiple fabric filters and electrostatic precipitators
- Permit related data: Federal Operating Permit number 065

Existing Air Monitoring Sites

The TCEQ operates three ambient air monitoring sites within a 100 kilometer (km) radius of Big Brown. Table 1 details the three closest monitoring sites in order of proximity. Maximum SO_2 ground level concentrations can be expected close to the source. Although two of these locations are currently monitoring SO_2, none of the existing sites are within reasonable proximity to the source to characterize maximum SO_2 concentrations.

Table 1: Air Monitoring Sites Near Big Brown

Site	Distance from Big Brown	Current Sulfur Dioxide (SO_2) Monitoring	SO_2 Design Value (2013–2015)
Corsicana Airport	40 km northwest	Yes	39 parts per billion (ppb)
Tyler Airport Relocated	84 km southwest	No	Not applicable
Waco Mazanec	98 km northwest	Yes	7 ppb

km – kilometer

Settings and Surroundings

The primarily rural area surrounding Big Brown is located in the northern portion of the Southern Post Oak Savanna ecoregion of the East Central Texas Plains. This area is characterized by a mix of post oak woods, improved pasture, and rangeland (Griffith et al. 2004). The elevation ranges from 91 m to 147 m as shown in Figure 1. The area is speckled with inactive oil and gas drilling pad sites with no access to electrical power. No significant changes to the landscape were noted during the reconnaissance as compared to the satellite image shown in Figure 6. Due to minimal geographical obstructions, wind patterns are highly consistent across the Central Texas area. Mountain and valley wind channeling, or other terrain related meteorological impacts, are not expected in this area.

Figure 1: Big Brown Area Elevation Map

Figure 2: Big Brown Sulfur Dioxide (SO_2) Stacks and Emissions, 2013
TPY – tons per year

Meteorological Data

Figure 3 provides illustrations of area annual average wind speed and direction for 2012, 2013, and 2014 from meteorological sensors at the Corsicana Municipal Airport, located 40 km northwest of Big Brown. Figure 4 illustrates the 2012-2014 annual average wind speed. The length of each wind rose bar corresponds to the frequency of the wind coming from the indicated direction by percentage. Based on the analysis of the 2012-2014 wind data, the dominant wind flow direction for the area is 135 degrees southeast to 220 degrees south-southwest. Approximately 47% of the average area wind flows move from these directions. Over this three year period, calm winds (0-2 miles per hour) occurred on average 8% of the time, and wind speeds averaged 8.9 miles per hour (Iowa Environmental Mesonet 2016).

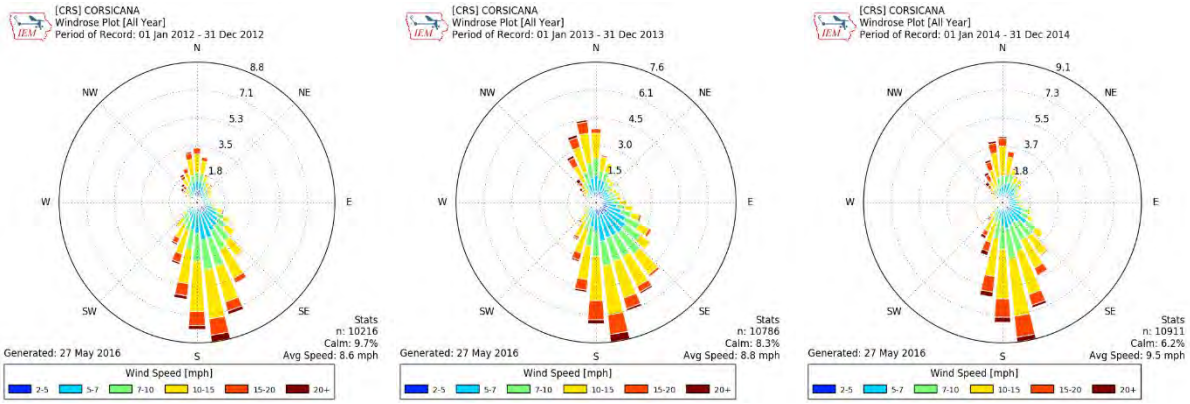


Figure 3: (From left to right) 2012, 2013, and 2014 Individual Wind Rose Plots

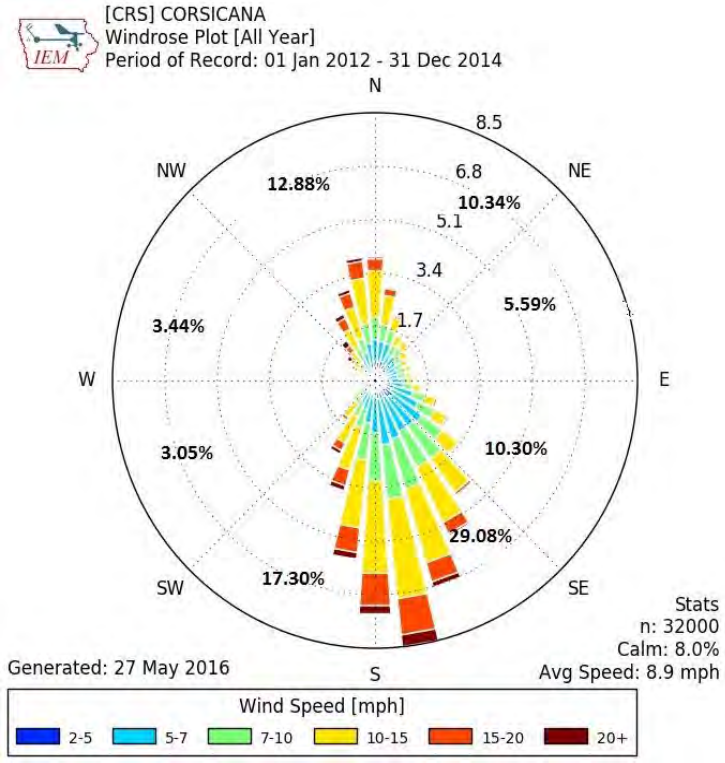
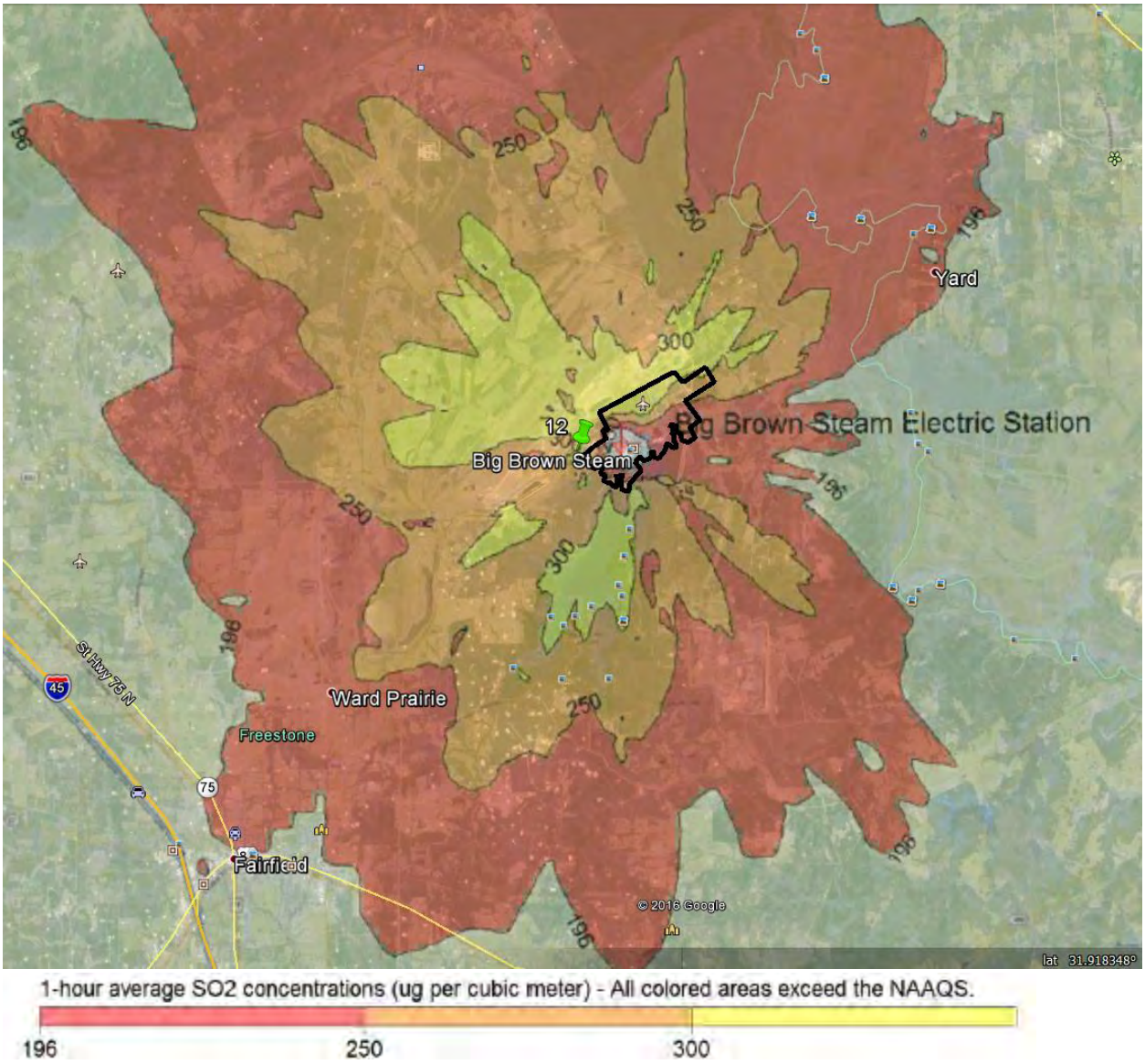


Figure 4: 2012–2014 Combined Average Wind Rose Plot

Modeling Analysis for Monitoring Site Placement

The *SO_2 NAAQS Designations Source-Oriented Monitoring Technical Assistance Document* (Monitoring TAD) suggests that modeling is one technique that may be used to assist in identifying potential monitoring sites. The *SO_2 NAAQS Designations Modeling Technical Assistance Document* (Modeling TAD) notes that for area designations under the 2010 SO_2 National Ambient Air Quality Standard (NAAQS), the AERMOD modeling system should be used unless use of an alternative model can be justified.

In developing area designations for the 2010 SO_2 NAAQS, AERMOD modeling provided by the Sierra Club was cited in the *Texas Technical Support Document* (EPA docket ID number, EPA-HQ-OAR-2014-0464-0144) as the sole modeling analysis used by the EPA to inform their proposed designation for Big Brown. Given the EPA's reliance on the Sierra Club's modeling for designation purposes, and to facilitate consistency in the EPA's review, the TCEQ has chosen to use this modeling to inform SO_2 monitor placement recommendations near Big Brown. The use of the Sierra Club's modeling for monitor placement decisions does not infer the TCEQ's concurrence with the use of this modeling analysis for any other purpose. Figure 5 illustrates the Sierra Club's modeled impacts for the 2012-2014 actual facility emissions with the TCEQ viable air monitoring site identified with a green pin.



SO_2 – sulfur dioxide
µg – micrograms
NAAQS – National Ambient Air Quality Standards

Scale
(red) – 196–250 micrograms per cubic meter (µg/m³) average SO_2 concentrations
(orange) – 251–300 µg/m³ average SO_2 concentrations
(yellow) – greater than 300 µg/m³ average SO_2 concentrations

Figure 5: Sierra Club's Modeled Impacts Using Actual Emissions from 2012–2014 for the Big Brown Steam Electric Station Analysis Area

Siting Options and Criteria

The TCEQ does not have SO_2 monitors located in the area surrounding Big Brown that would be expected to characterize the highest SO_2 concentrations from this facility. Therefore, a new site is proposed. The TCEQ focused on complying with the federal requirements listed in 40 Code of Federal Regulations (CFR) Part 58, Appendix E regarding siting criteria. In addition, the TCEQ evaluated areas for a monitoring site location that would appropriately and sufficiently characterize air quality around an SO_2

emissions source. This approach included utilizing multiple techniques and guidance provided in the Monitoring TAD, such as modeling, local wind roses that reflect data from 2012-2014, and area site reconnaissance.

The modeling analysis provided in Figure 5 suggests that off-property maximum SO_2 concentrations are expected to occur northeast, north, northwest, and west of the Big Brown facility, with isolated pockets of higher and lower concentrations. According to the technical support document, the highest predicted model concentration of SO_2 based on actual emissions from the facility is expected northwest of Big Brown, with concentrations above 300 micrograms per cubic meter ($\mu g/m^3$). The single highest modeled value occurred approximately 4 km to the northwest of the facility center. Modeled concentrations above 300 $\mu g/m^3$ were also predicted southwest of the facility.

Many areas with anticipated high SO_2 concentrations are not viable for monitoring site deployment due to a large water body south to southwest of Big Brown, lack of electrical power, dense vegetation, or averse property owners. Figure 6 depicts the twelve potential monitoring site locations that were identified in the area (red and green pins) and the Big Brown permitted property line (black). Eleven of the twelve identified potential sites (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11) are not considered viable and are indicated by red pins. Property owners of sites 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10 either declined monitor placement on the property or were unresponsive. Sites 1, 7, and 10 are in areas frequented by mine machinery and heavy trucks. Sites 1, 8, and 10 are within the permitted property. Sites 7, 8, and 10 have limited or no vehicle accessibility. Sites 8 and 11 lack sufficient space for monitor placement. Sites 3 and 8 have no accessible electrical power. Sites 3 and 4 are on hunting leases. A portion of the property near site 3 is used for water treatment. Site 4 is leased to a state park. Site 5 has tall trees and dense vegetation. The property owner of site 8 refused access to the property. Site 10 is in an area with active mining, and the areas surrounding the active mine are in various stages of post-mining vegetative recovery. Site 11 is obstructed by the nearby power lines.

Site 12 has satisfactory logistical and siting characteristics (indicated with a green pin in Figures 5, 6, and 8) and is located approximately 1.4 km west of Big Brown in an area anticipated to experience elevated SO_2 concentrations. This site is downwind of the source when winds are from the east, approximately 8% of the year on average (see Figure 4). The site offers adequate space, available power, proximity to the facility, and has clear access (see section “Recommendation” and Table 2). The property owner is amenable to a site agreement.

Recommendation

Pursuant to 40 CFR Sections 51.1201 and 51.1203, the TCEQ recommends an air monitoring station near Big Brown to collect and submit air quality data characterizing potential maximum 1-hour ambient SO_2 concentrations in the area. According to the regulations, the level of the national primary 1-hour annual ambient air quality standard for SO_2 shall be measured at an ambient air monitoring site using a Federal Reference Method (FRM) or a Federal Equivalent Method (FEM) (40 CFR Part 50.17(c)). The TCEQ proposes to deploy an air monitoring station to characterize SO_2 levels in the area utilizing an automated equivalent method, which is considered an FEM (40 CFR Part 53).

Based on current facility operations, available emissions data, logistics, meteorological data, and modeling analyses, Site 12 (Figures 5 and 6) is the recommended location for placement of a new source-oriented ambient SO_2 monitoring station. The most influential factors constraining site placement for Big Brown were logistics (e.g., electricity, vegetation, property access, and siting criteria) and averse property owners. Appropriate siting logistics and property owner amenability are lacking in areas where modeling predicted the highest SO_2 concentrations (sites 2 and 7). The TCEQ considered additional locations based on meteorological and modeling data, but these locations were either logistically unsuitable or the property owners declined monitor placement on the property (sites 1, 3, 4, 5, 6, 8, 9, 10, and 11).

Historical meteorological data from 2012-2014 (Figure 4) indicate that the area around site 12 is downwind of Big Brown during easterly winds on average 8% of the year. Site 12 is the closest viable location to the source (1.4 km) and the model-predicted off-property maximum SO_2 concentrations with available power, adequate space, and level ground, meeting all federal siting criteria. The property owner of site 12 is amenable to a site agreement.

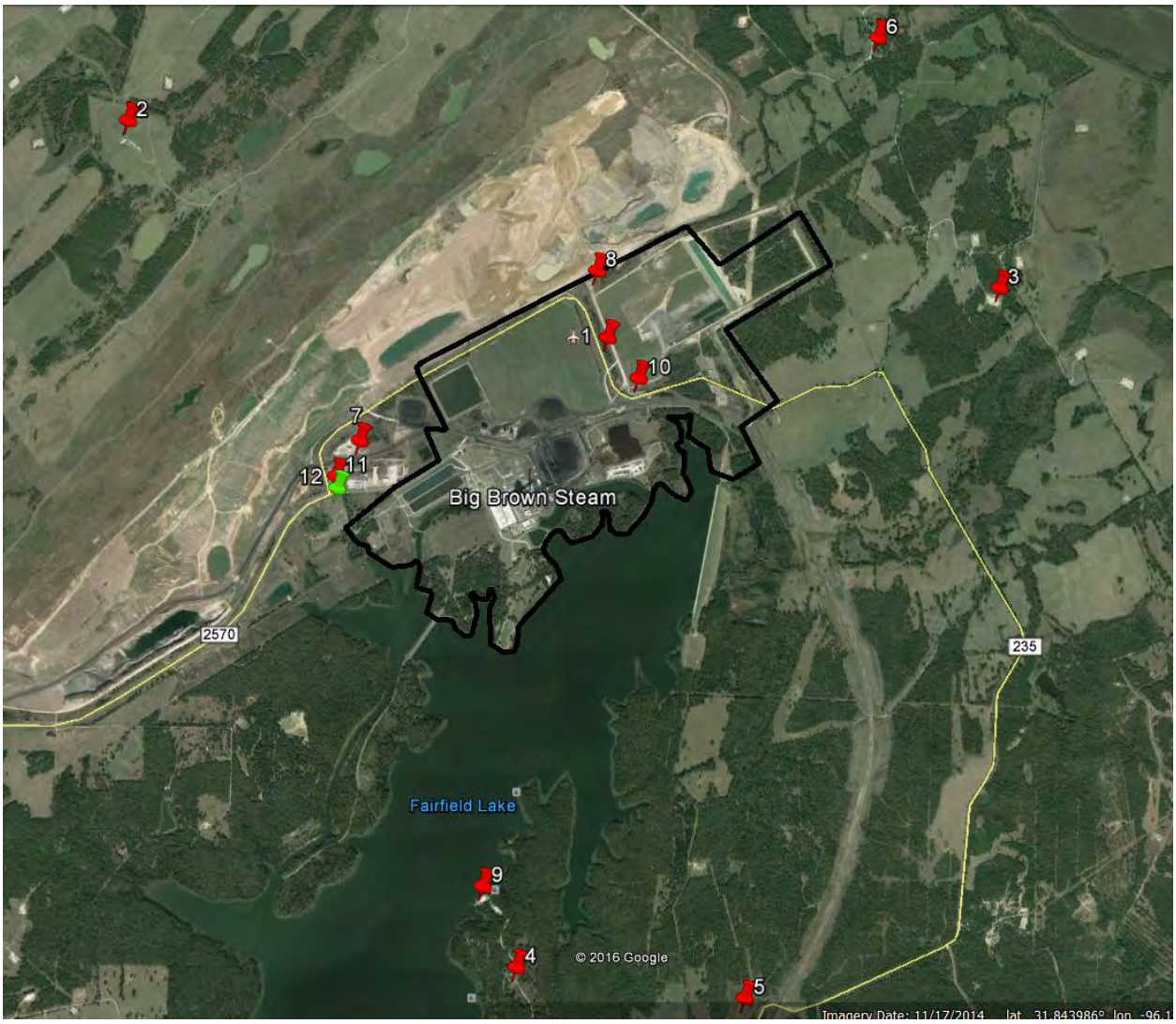


Figure 6: Potential Monitoring Sites for Big Brown

Table 2: Potential Sites Assessment[1]

Site Number	Big Brown #1	Big Brown #2	Big Brown #3
Location[2]	31.83006, -96.04986	31.84390, -96.08720	31.83373, -96.01967
Distance from SO_2 Source[2]	1,085 m	3,977 m	3,742 m
Wind Direction	S, SE	S, SE	S, SE
Grade	<1%	<1%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	None	Yes; pond (S)	None
Wind Channeling	None	None	None
Downwind[2]	Yes (NNE)	Yes (NW)	No (ENE)
Obstructions and Height	None	None	None
Distance from Site to Obstructions	None	None	None
Road/Site Access	Yes	Yes	Yes
Electricity Available <18 m	Yes	Yes	No
Pros	• Downwind • Level ground • Power available • Space available • Close proximity to source • High SO_2 modeling	• Downwind • Level ground • Power available • Space available • Site access • Close proximity to source • High SO_2 modeling	• Level ground • Space available • Site access • Close proximity to source • High SO_2 modeling
Cons	• Difficult site access • Heavy vehicle traffic • Site within permitted property • Property owner declined	• Unresponsive property owner	• Not downwind • No power • Hunting leases • Water treatment area • Unresponsive property owner
Viable Site (Yes, No, or Preferred)	No	No	No

Big Brown Steam Electric Monitor Placement Evaluation

Site Number	Big Brown #4	Big Brown #5	Big Brown #6
Location[2]	31.78939, -96.05603	31.78766, -96.03875	31.85023, -96.02919
Distance from SO_2 Source[2]	3,301 m	3,449 m	3,771 m
Wind Direction	S, SE	S, SE	S, SE
Grade	<1%	<1%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	Yes; lake (W)	None	None
Wind Channeling	None	None	None
Downwind[2]	No (S)	No (SSE)	No (NE)
Obstructions and Height	None	Trees (7 m)	None
Distance from Site to Obstructions	None	Trees (10 m)	None
Road/Site Access	Yes	Yes	Yes
Electricity Available <18 m	Yes	Yes	Yes
Pros	• Level ground • Power available • Space available • Site access • Close proximity to source • High SO_2 modeling	• Level ground • Power available • Space available • Site access • Close proximity to source • High SO_2 modeling	• Level ground • Power available • Space available • Site access • Close proximity to source • High SO_2 modeling
Cons	• Not downwind • Hunting lease • State park lease • Property owner declined	• Not downwind • Local obstructions • Dense vegetation • Unresponsive property owner	• Not downwind • Unresponsive property owner
Viable Site (Yes, No, or Preferred)	No	No	No

Site Number	Big Brown #7	Big Brown #8	Big Brown #9
Location[2]	31.82308, -96.06875	31.83448, -96.05076	31.79449, -96.05867
Distance from SO_2 Source[2]	1,074 m	1,555 m	2,874 m
Wind Direction	S, SE	S, SE	S, SE
Grade	>2%	>2%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	Yes; lake (S)	None	Yes; lake (W)
Wind Channeling	None	None	None
Downwind[2]	No (WNW)	Yes (N)	No (S)
Obstructions and Height	Trees (30 m) Water tanks (4 m)	None	Trees (6 m)
Distance from Site to Obstructions	Trees (30 m W, E, NNE) Water tanks (38 m SE)	None	Trees (15 m S)
Road/Site Access	No	No	Yes
Electricity Available <18 m	No	No	Yes
Pros	• Space available • Close proximity to source • High SO_2 modeling	• Downwind • Close proximity to source • High SO_2 modeling	• Level ground • Power available • Space available • Site access • Close proximity to source • High SO_2 modeling
Cons	• Not downwind • Unlevel ground • No power • No site access • Local obstructions • Heavy vehicle traffic • Property owner declined	• Unlevel ground • No power • No space available • No site access • Site within permitted property • Property owner declined	• Not downwind • Property owner declined
Viable Site (Yes, No, or Preferred)	No	No	No

Site Number	Big Brown #10	Big Brown #11	Big Brown #12
Location[2]	31.82743, -96.04744	31.82075, -96.07051	31.81998, -96.07038
Distance from SO_2 Source[2]	1,030 m	1,407 m	1,421 m
Wind Direction	S, SE	S, SE	S, SE
Grade	<1%	<1%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	Yes; lake (S)	Yes; lake (SE)	Yes; lake (SE)
Wind Channeling	None	None	None
Downwind[2]	No (NE)	No (W)	No (W)
Obstructions and Height	None	Power pole (7 m)	Trees (10 m)
Distance from Site to Obstructions	None	Powerlines (7 m N, NE, E, SE, S, SW, W, NW)	Trees (27 m NW)
Road/Site Access	No	Yes	Yes
Electricity Available <18 m	Yes	Yes	Yes
Pros	• Level ground • Power available • Space available • Close proximity to the source • High SO_2 modeling	• Level ground • Power available • Site access • Close proximity to source • High SO_2 modeling • Agreeable property owner	• Level ground • Close proximity to source • High SO_2 modeling • Power available • Space available • Property owner amenable
Cons	• Not downwind • No site access • Heavy vehicle traffic • Site within permitted property • Mining activity • Property owner declined	• Not downwind • No space available • Local obstructions	• Not downwind • Local obstructions
Viable Site (Yes, No, or Preferred)	No	No	Preferred

[1]Based on 40 Code of Federal Regulations Part 58 and *SO_2 NAAQS Designations Source-Oriented Monitoring Technical Assistance Document*
[2]Based on Google Earth

E – east
m – meter
N – north
NE – northeast
NNE – north-northeast
NW – northwest
S – south
SE – southeast
SO_2 – sulfur dioxide
ENE – east-northeast
SSE – south-southeast
SW – southwest
W – west
WNE – west-northwest
> – greater than
< – less than
– number
% – percent





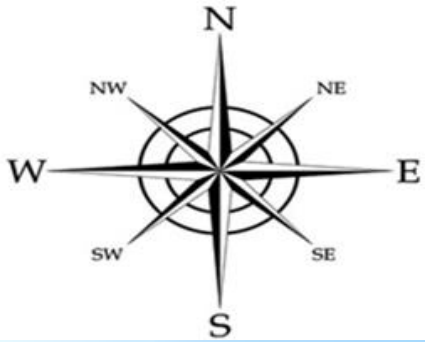





Figure 7: Big Brown Potential Site #12 Cardinal Direction Photos

Figure 8: Big Brown Potential Site #12 Satellite Image

References

Griffith, G. E., S. A. Bryce, J. M. Omernik, J. A. Comstock, A. C. Rogers, B. Harrison, S. L. Hatch, and D. Bezanson. *Ecoregions of Texas*. (2 sided color poster with map, descriptive text, summary tables, and photographs). Reston, Virginia: U.S. Geological Survey, 2004. Scale 1:2,500,000.

"IEM : Site Locator." Iowa Environmental Mesonet. 2016. Accessed April 06, 2016. https://mesonet.agron.iastate.edu/sites/locate.php?network=TX_ASOS.

U.S. EPA. EPA Docket ID: EPA-HQ-OAR-2014-0464. *Texas Technical Support Document – Area Designations for the 2010 SO_2 Primary National Ambient Air Quality Standard (EPA-HQ-OAR-2014-0464-0144)*. pp. 182-200. 2016. Accessed October 6, 2016. https://www.regulations.gov/docket?D=EPA-HQ-OAR-2014-0464.

Exhibit C

Martin Lake Electrical Monitor Placement Evaluation

Source Information

- Name: Martin Lake Electrical Station (Martin Lake) (Figure 2)
- Owner: Luminant Generation Company, LLC
- Facility function: electric generation
- Location: 32.25965, -94.57033, Texas Commission on Environmental Quality (TCEQ) Region 5, Rusk County, Texas
- Sulfur dioxide (SO_2) emissions data: 62,735 tons (2013), 53,660 tons (2014)
- Long-term emissions trend: decreasing, 10 percent (%) decrease from 2010 to 2014
- Emission profile: operational year-round
- Stack height(s): three stacks, S-1, S-2, and S-3, each 138 meters (m) high, currently active
- SO_2 emission controls: multiple wet scrubbers, electrostatic precipitators, and fabric filters
- Permit related data: Federal Operating Permit number 053

Existing Air Monitoring Sites

The TCEQ operates three ambient air monitoring sites within a 100 kilometer (km) radius of Martin Lake. Table 1 details the three closest monitoring sites in order of proximity. Maximum SO_2 ground level concentrations can be expected close to the source. Although one location currently monitors SO_2, none of the existing sites are within reasonable proximity to the source to characterize maximum SO_2 concentrations.

Table 1: Air Monitoring Sites Near Martin Lake

Site	Distance from Martin Lake	Current Sulfur Dioxide (SO_2) Monitoring	SO_2 Design Value (2013–2015)
Longview	18 km northwest	No	Not applicable
Karnack	60 km northeast	Yes	46 parts per billion
Tyler Airport Relocated	79 km west	No	Not applicable

km – kilometer

Settings and Surroundings

The primarily rural area surrounding Martin Lake is located in the southern portion of the Tertiary Uplands ecoregion of the South Central Plains. This area is the western edge of the southern coniferous forest belt and blanketed by dense pine and hardwood forests (Griffith et al. 2004). The elevation is roughly 122 m as shown in Figure 1. The area is speckled with inactive oil and gas drilling pad sites with limited power accessibility. During reconnaissance it was noted that the vegetation was significantly thicker and the trees were significantly taller in some locations as compared to the satellite image shown in Figure 6. Mountain and valley wind channeling, or other terrain related meteorological impacts, are not expected in this area.

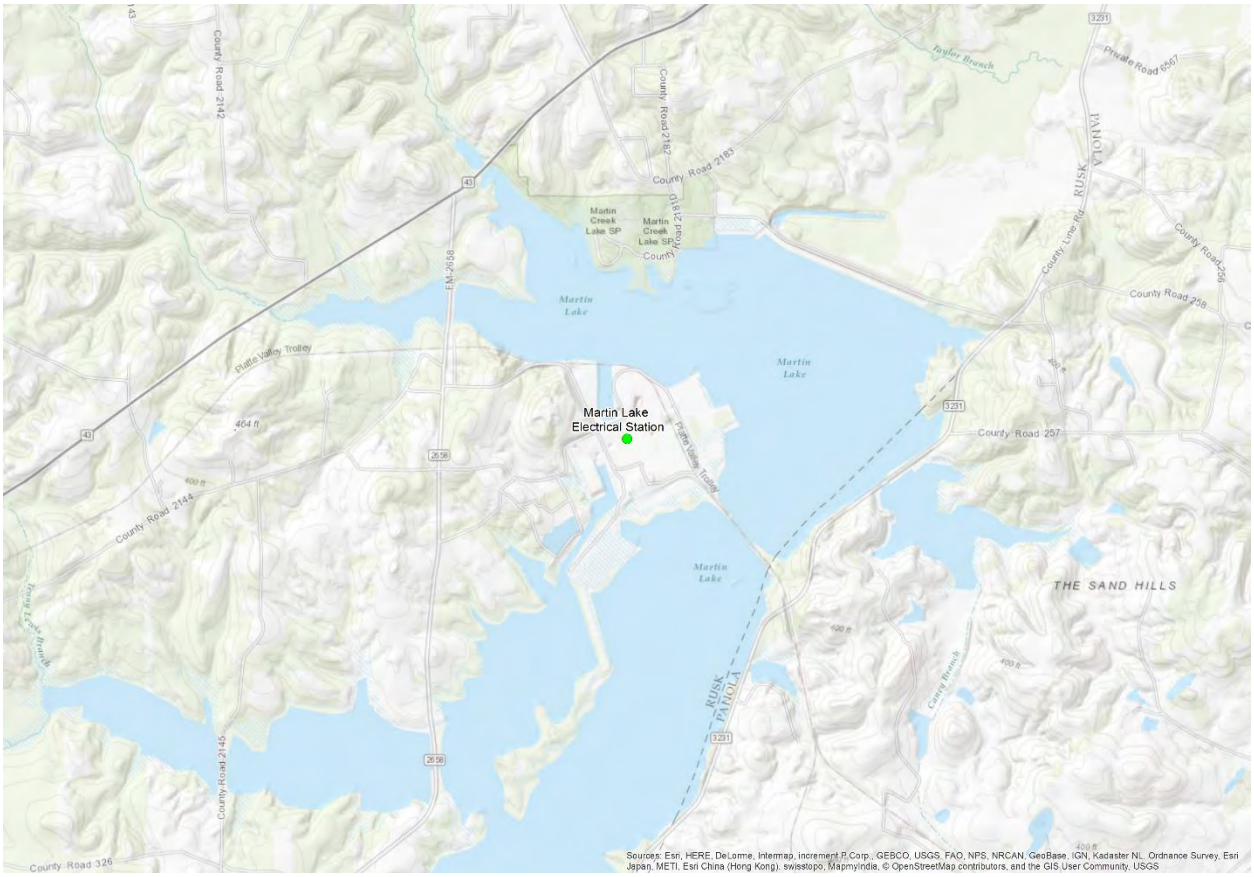


Figure 1: Martin Lake Area Elevation Map

Figure 2: Martin Lake Sulfur Dioxide (SO_2) Stacks and Emissions, 2013
TPY – tons per year

Meteorological Data

Figure 3 provides illustrations of area annual average wind speed and direction for 2012, 2013, and 2014 from meteorological sensors at the Longview Airport, located 18 km northwest of Martin Lake. Figure 4 illustrates the 2012-2014 annual average wind speed. The length of each wind rose bar corresponds to the frequency of the wind coming from the indicated direction by percentage. Based on the analysis of the 2012-2014 wind data, the dominant wind flow direction for the area is 125 degrees southeast to 215 degrees south-southwest. Approximately 40% of the average area wind flows move from these directions. Over this three year period, calm winds (0-2 miles per hour) occurred on average 19% of the time, and wind speeds averaged 6.9 miles per hour (Iowa Environmental Mesonet 2016).

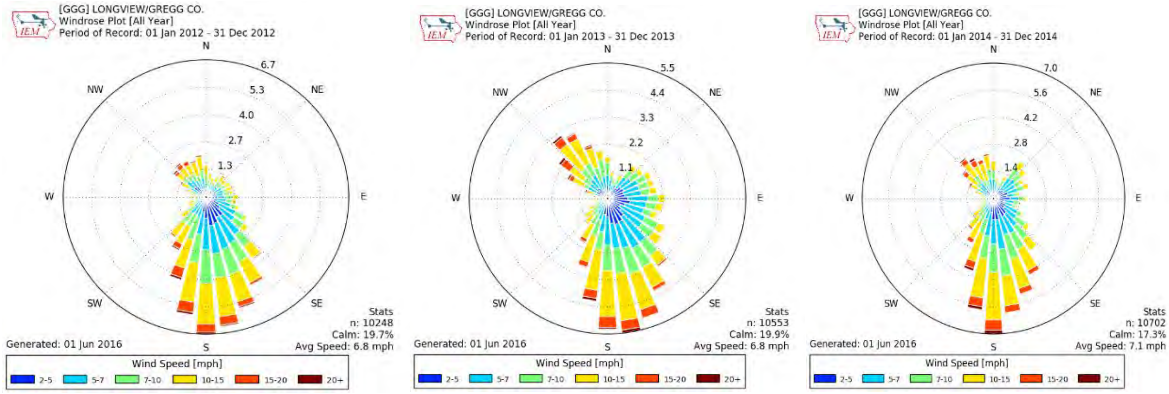


Figure 3: (From left to right) 2012, 2013, and 2014 Individual Wind Rose Plots

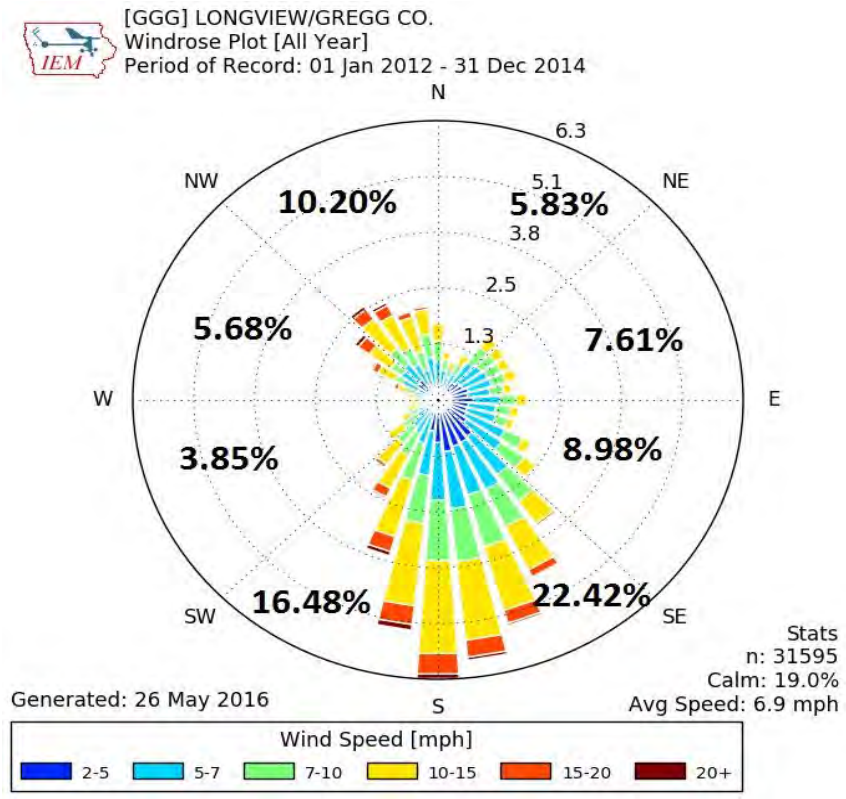
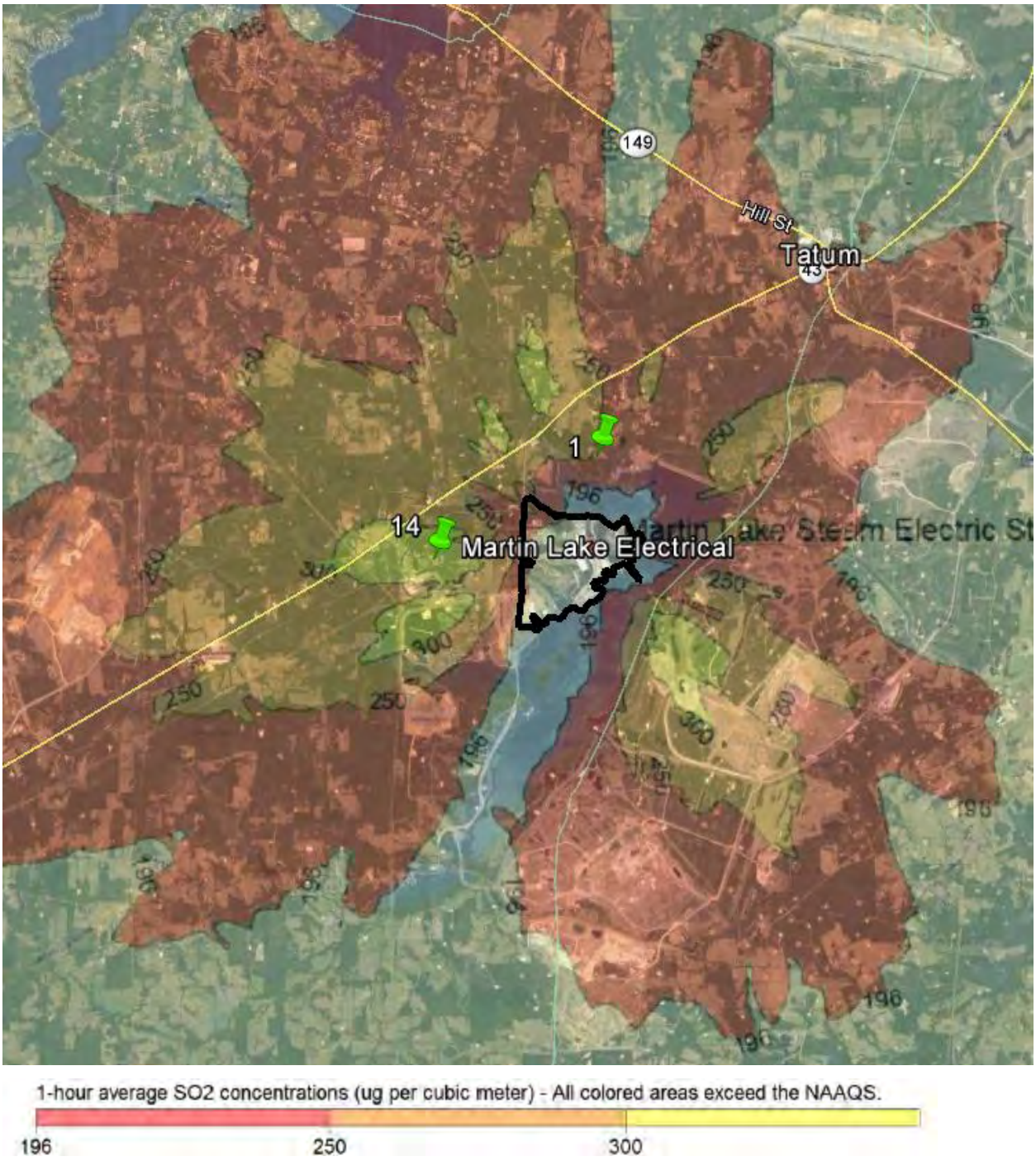


Figure 4: 2012-2014 Combined Average Wind Rose Plot

Modeling Analysis for Monitoring Site Placement

The *SO_2 NAAQS Designations Source-Oriented Monitoring Technical Assistance Document* (Monitoring TAD) suggests that modeling is one technique that may be used to assist in identifying potential monitoring sites. The *SO_2 NAAQS Designations Modeling Technical Assistance Document* (Modeling TAD) notes that for area designations under the 2010 SO_2 National Ambient Air Quality Standard (NAAQS), the AERMOD modeling system should be used, unless use of an alternative model can be justified.

In developing area designations for the 2010 SO_2 NAAQS, AERMOD modeling provided by the Sierra Club was cited in the *Texas Technical Support Document* (EPA docket ID number, EPA-HQ-OAR-2014-0464-0144) as the sole modeling analysis used by the EPA to inform their proposed designation for Martin Lake. Given the EPA's reliance on the Sierra Club's modeling for designation purposes, and to facilitate consistency in the EPA's review, the TCEQ has chosen to use this modeling to inform SO_2 monitor placement recommendations near Martin Lake. The use of the Sierra Club's modeling for monitor placement decisions does not infer the TCEQ's concurrence with the use of this modeling analysis for any other purpose. Figure 5 illustrates the Sierra Club's modeled impacts for the 2012-2014 actual facility emissions with the TCEQ viable air monitoring sites identified with green pins.



SO_2 – sulfur dioxide
µg – micrograms
NAAQS – National Ambient Air Quality Standards

Scale
(red) – 196–250 micrograms per cubic meter (µg/m³) average SO_2 concentrations
(orange) – 251–300 µg/m³ average SO_2 concentrations
(yellow) – greater than 300 µg/m³ average SO_2 concentrations

Figure 5: Sierra Club's Modeled Impacts Using Actual Emissions from 2012–2014 for the Martin Lake Electrical Station Analysis Area

Siting Options and Criteria

The TCEQ does not have SO_2 monitors located in the area surrounding Martin Lake that would be expected to characterize the highest SO_2 concentrations from this facility, therefore a new site is proposed. The TCEQ focused on complying with the federal requirements listed in 40 Code of Federal Regulations (CFR) Part 58, Appendix E, regarding siting criteria. In addition, the TCEQ evaluated areas for a monitoring site location that would appropriately and sufficiently characterize air quality around an SO_2 emissions source. This approach included utilizing multiple techniques and guidance provided in the Monitoring TAD, such as modeling, local wind roses that reflect data from 2012-2014, and area site reconnaissance.

The modeling analysis provided in Figure 5 suggests that off-property maximum SO_2 concentrations are expected to occur north, northwest, west, southwest, and southeast of the Martin Lake facility, with isolated pockets of higher and lower concentrations. In addition, the highest predicted model concentration of SO_2 based on actual emissions from the facility was predicted southeast (noted as east by the Sierra Club) of Martin Lake, with predicted concentrations above 300 micrograms per cubic meter ($\mu g/m^3$). Modeled concentrations above 300 $\mu g/m^3$ were also predicted to the west-southwest and north of the facility.

Meteorological data (see Figures 3 and 4) indicate south-southwest to southeast wind directions around Martin Lake with a strong southerly component over a three year average of 40%. Easterly winds occurred approximately 16% of the time during this period and were consistently 2 to 15 miles per hour, which could result in the higher SO_2 concentrations predicted by the Sierra Club's model. Northwesterly winds ranged up to 20+ miles per hour for approximately 16% of the same time period. Northwesterly winds could also support the model predicted SO_2 concentrations to the southeast. The meteorological assessment combined with the modeling results indicated that reconnaissance to the north of Martin Lake was the priority, due to the prominent southerly wind directions, while potential sites to the west and southeast were also investigated.

Other areas with anticipated high SO_2 concentrations are not viable for monitoring site deployment due to a large water body south of Martin Lake, lack of electrical power, dense vegetation, or averse property owners. Twenty potential monitoring sites were identified in the area. Figure 6 depicts these 20 potential site locations (red and green pins) and the Martin Lake permitted property line (black). Eighteen of the twenty identified potential sites (numbers 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 19, and 20) are not considered viable and are indicated by red pins.

Sites 2, 3, and 4 are positioned near a boat ramp in areas with numerous obstructions. Site 2 lacks sufficient space for monitor placement. Site 5 is positioned near a cell phone tower. Sites 6 and 7 have tall trees and dense vegetation. Site 7 lacks sufficient space for monitor placement. Sites 11 and 20 are on private property with hunting leases. Sites 6, 8, 10, 12, 13, 15, 16, and 17 have limited or no vehicle accessibility. Sites 10, 12, 15, and 16 are in areas frequented by mining machinery, heavy trucks, and railcars. Site 10 is in an area with active mining, and the areas surrounding the active mine are in various stages of post-mining vegetative recovery. Sites 3, 4, 5, 6, 8, 9, 10, 13, 16, and 20 have no accessible electrical power.

Property owners of sites 5, 6, 7, and 8 either refused access to the property, or the property was unsuitable. The property owner of site 8 declined monitor placement due to its proximity to the property owner's house. Property owners of sites 3, 4, 10, 11,

12, 13, 15, 16, and 20 also declined monitor placement on their property. Property owners of sites 2, 5, 6, 7, 9, 12, 17, 18, and 19 were unresponsive to site placement inquiries.

Sites 1 and 14, indicated with green pins in Figures 5 and 6, are considered viable and meet logistical and siting criteria.

- Site 1 is located approximately 2.2 km north of the Martin Lake facility in an area anticipated to experience elevated SO_2 concentrations. This site is downwind of the source when winds are from the south, approximately 40% of the year on average (see Figure 4). The site offers adequate space, available power, is close to the facility, and is easily accessible (see section "Recommendation" and Table 2). The property owner is amenable to a site agreement.
- Site 14 is located approximately 3.6 km west of the Martin Lake facility in an area anticipated to experience elevated SO_2 concentrations. This site is downwind of the source when winds are from the east, approximately 16% of the year on average (see Figure 4). The site offers adequate space, available power, is close to the facility, and is easily accessible (see section "Recommendation" and Table 2). The property owner is amenable to a site agreement.

Recommendation

Pursuant to 40 CFR Sections 51.1201 and 51.1203, the TCEQ recommends an air monitoring station in the area near Martin Lake to collect and submit air quality data characterizing potential maximum 1-hour ambient SO_2 concentrations in the area. According to the regulations, the level of the national primary 1-hour annual ambient air quality standard for SO_2 shall be measured at an ambient air monitoring site using a Federal Reference Method (FRM) or a Federal Equivalent Method (FEM) (40 CFR Part 50.17(c)). The TCEQ proposes to deploy an air monitoring station to characterize SO_2 levels in the area utilizing an automated equivalent method, which is considered an FEM (40 CFR Part 53).

Based on current facility operations, available emissions data, wind patterns, logistics, meteorological data, and modeling analyses, Site 1 (noted as a green pin in Figures 5 and 6) is the recommended location for placement of a new source-oriented ambient SO_2 monitoring station. The most influential factors constraining site placement for Martin Lake were adverse property owners and logistics (e.g., electricity, vegetation, property access, and siting criteria). Electricity and appropriate siting logistics are lacking in areas towards the southeast where the modeling predicted the highest SO_2 concentrations (sites 9 and 10). The TCEQ considered additional locations based on meteorological and modeling data but these locations were either logistically unsuitable or the property owners declined monitor placement on the property (sites 2, 3, 4, 5, 6, 7, and 8). The Sierra Club's model also indicates elevated one-hour SO_2 average concentration southwest of the facility. However, the combination of wind rose data, modeling, and site logistics, does not support an air monitoring site in this direction.

Historical meteorological data from 2012-2014 (Figure 4) indicate the area around site 1 is downwind of Martin Lake during southerly winds, on average 40% of the year. Site 1 is the closest viable location to the source (2.2 km) and the Sierra Club's modeled impacts predict this area's SO_2 concentration to be in exceedance of the 2010 SO_2 NAAQS. This site also has available power, adequate space, and level ground, meeting all federal siting criteria. The property owner of Site 1 is amenable to a site agreement.

Figure 6: Potential Monitoring Sites for Martin Lake

Table 2: Potential Sites Assessment[1]

Site Number	Martin Lake #1	Martin Lake #2	Martin Lake #3
Location[2]	32.27808, -94.57084	32.27377, -94.56651	32.27591, -94.56296
Distance from SO_2 Source[2]	2,200 m	1,615 m	1,940 m
Wind Direction	SSW to SE	SSW to SE	SSW to SE
Grade	<2%	<1%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	Yes; lake (S)	Yes; lake (S)	Yes; lake (S)
Wind Channeling	None	None	None
Downwind[2]	Yes (N)	Yes (NNE)	Yes (NNE)
Obstructions and Height	Trees (12 m)	Trees (30 m)	Trees (30 m)
Distance from Site to Obstructions	Trees (43 m S, 24 m N, 107 m E)	Trees (21 m W, 63 m S)	Trees (21 m W, 63 m S)
Road/Site Access	Yes	Yes	Yes
Electricity Available <18 m	Yes	Yes	No
Pros	• Downwind • Power available • Space available • Site access • Close proximity to source • High SO_2 modeling • Agreeable property owner	• Downwind • Level ground • Power available • Site access • Close proximity to source • High SO_2 modeling	• Downwind • Level ground • Space available • Site access • Close proximity to source • High SO_2 modeling
Cons	• Local obstructions • Unlevel ground	• No space available • Local obstructions • Unresponsive property owner	• No power • Local obstructions • Property owner declined
Viable Site (Yes, No, or Preferred)	Preferred	No	No

Martin Lake Electrical Monitor Placement Evaluation

Site Number	Martin Lake #4	Martin Lake #5	Martin Lake #6
Location[2]	32.27725, -94.56243	32.28261, -94.57066	32.28521, -94.56049
Distance from SO_2 Source[2]	2,100 m	2,600 m	3,010 m
Wind Direction	SSW to SE	SSW to SE	SSW to SE
Grade	<1%	<1%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	Yes; lake (S)	Yes; lake (S)	Yes; lake (S)
Wind Channeling	None	None	None
Downwind[2]	Yes (NNE)	Yes (N)	Yes (NNE)
Obstructions and Height	Trees (30 m)	Trees (12 m)	Trees (12 m)
Distance from Site to Obstructions	Trees (35 m S, 68 m W)	Trees (62 m S, 102 m W)	Trees (20 m W, 35 m N, 26 m E)
Road/Site Access	Yes	Yes	No
Electricity Available <18 m	No	No	No
Pros	• Downwind • Level ground • Space available • Site access • Close proximity to source • High SO_2 modeling	• Downwind • Level ground • Space available • Site access • Close proximity to source • High SO_2 modeling	• Downwind • Level ground • Space available • Close proximity to source • High SO_2 modeling
Cons	• No power • Local obstructions • Property owner declined	• No power • Local obstructions • Unresponsive property owner	• No power • No site access • Dense vegetation • Local obstructions • Unresponsive property owner
Viable Site (Yes, No, or Preferred)	No	No	No

Martin Lake Electrical Monitor Placement Evaluation

Site Number	Martin Lake #7	Martin Lake #8	Martin Lake #9
Location[2]	32.28478, -94.55883	32.28332, -94.58033	32.28060, -94.58543
Distance from SO_2 Source[2]	3,000 m	2,777 m	2,706 m
Wind Direction	SSW to SE	SSW to SE	SSW to SE
Grade	<1%	<1%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	Yes; lake (S)	Yes; lake (SW)	Yes; lake (SE)
Wind Channeling	None	None	None
Downwind[2]	Yes (NNE)	Yes (NNW)	Yes (NNW)
Obstructions and Height	Trees (12 m)	Trees (10 m)	Trees (15 m)
Distance from Site to Obstructions	Trees (23 m SW, 22 m E)	Trees (62 m S, 46 m W)	Trees (75 m SE)
Road/Site Access	Yes	No	Yes
Electricity Available <18 m	Yes	No	No
Pros	• Downwind • Level ground • Power available • Site access • Close proximity to source • High SO_2 modeling	• Downwind • Level ground • Space available • Close proximity to source • High SO_2 modeling	• Downwind • Level ground • Space available • Site access • Close proximity to source • High SO_2 modeling
Cons	• No space available • Dense vegetation • Local obstructions • Unresponsive property owner	• No power • No site access • Local obstructions • Property owner declined	• No power • Local obstructions • Unresponsive property owner
Viable Site (Yes, No, or Preferred)	No	No	No

Martin Lake Electrical Monitor Placement Evaluation

Site Number	Martin Lake #10	Martin Lake #11	Martin Lake #12
Location[2]	32.23796, -94.55886	32.26160, -94.61984	32.25520, -94.61596
Distance from SO_2 Source[2]	2,652 m	4,558 m	4,239 m
Wind Direction	SSW to SE	SSW to SE	SSW to SE
Grade	<1%	<1%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	Yes; lake (W, N, NW)	No	No
Wind Channeling	None	None	None
Downwind[2]	No (SE)	No (W)	No (W)
Obstructions and Height	Trees (12 m)	Barn (5 m)	Shipping container (3 m)
Distance from Site to Obstructions	Trees (92 m NW)	Barn (12 m E)	Shipping container (8 m N)
Road/Site Access	No	Yes	No
Electricity Available <18 m	No	Yes	Yes
Pros	• Level ground • Space available • Close proximity to source • High SO_2 modeling	• Level ground • Power available • Space available • Site access • High SO_2 modeling	• Level ground • Power available • Space available • High SO_2 modeling
Cons	• Not downwind • No power • Mining activity • No site access • Local obstructions • Property owner declined	• Not downwind • Local obstructions • Private hunting lease • Property owner declined	• Not downwind • No site access • Potential interference from railroad to the east • Local obstructions • Property owner declined
Viable Site (Yes, No, or Preferred)	No	No	No

Martin Lake Electrical Monitor Placement Evaluation

Site Number	Martin Lake #13	Martin Lake #14	Martin Lake #15
Location[2]	32.25564, -94.61095	32.25757, -94.60898	32.24769, -94.60595
Distance from SO_2 Source[2]	3,820 m	3,640 m	3,560 m
Wind Direction	SSW to SE	SSW to SE	SSW to SE
Grade	<1%	<1%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	No	No	No
Wind Channeling	None	None	None
Downwind[2]	No (W)	No (W)	No (W)
Obstructions and Height	None	None	None
Distance from Site to Obstructions	None	None	None
Road/Site Access	No	Yes	No
Electricity Available <18 m	No	Yes	Yes
Pros	• Level ground • High SO_2 modeling • Space available	• Level ground • Power available • Space available • Site access • High SO_2 modeling • Property owner amenable	• Level ground • Power available • Space available • High SO_2 modeling
Cons	• Not downwind • No power • No site access • Property owner declined	• Not downwind	• Not downwind • No site access • Heavy vehicle traffic • Property owner declined
Viable Site (Yes, No, or Preferred)	No	Yes	No

Martin Lake Electrical Monitor Placement Evaluation

Site Number	Martin Lake #16	Martin Lake #17	Martin Lake #18
Location[2]	32.24522, -94.60680	32.25787, -94.60089	32.25731, -94.59395
Distance from SO_2 Source[2]	3,760 m	2,870 m	2,240 m
Wind Direction	SSW to SE	SSW to SE	SSW to SE
Grade	<1%	<1%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	Yes; lake (S)	No	Yes; retention pond (E)
Wind Channeling	None	None	None
Downwind[2]	No (W)	No (W)	No (W)
Obstructions and Height	None	Trees (10 m)	Trees (10 m)
Distance from Site to Obstructions	None	Trees (16 m W)	Trees (16 m W, N, S)
Road/Site Access	No	No	Yes
Electricity Available <18 m	No	Yes	Yes
Pros	• Level ground • Space available • High SO_2 modeling	• Level ground • Power available • Space available • High SO_2 modeling	• Level ground • Power available • Space available • Site access • High SO_2 modeling
Cons	• Not downwind • No power • No site access • Heavy vehicle traffic • Property owner declined	• Not downwind • No site access • Local obstructions • Unresponsive property owner	• Not downwind • Local obstructions • Unresponsive property owner
Viable Site (Yes, No, or Preferred)	No	No	No

Martin Lake Electrical Monitor Placement Evaluation

Site Number	Martin Lake #19	Martin Lake #20
Location[2]	32.28167, -94.52449	32.27272, -94.53505
Distance from SO_2 Source[2]	5,630 m	4,360 m
Wind Direction	SSW to SE	SSW to SE
Grade	<1%	<1%
Flood Plains	No	No
Mountain/Valley Winds	None	None
Water Body Within 1,000 m	No	Yes; lake (SW)
Wind Channeling	None	None
Downwind[2]	No (ENE)	No (ENE)
Obstructions and Height	None	None
Distance from Site to Obstructions	None	None
Road/Site Access	Yes	Yes
Electricity Available <18 m	Yes	No
Pros	• Level ground • Power available • Space available • Site access • High SO_2 modeling	• Level ground • Space available • Site access • High SO_2 modeling
Cons	• Not downwind • Unresponsive property owner	• Not downwind • No power • Private hunting lease • Property owner declined
Viable Site (Yes, No, or Preferred)	No	No

[1]Based on 40 Code of Federal Regulations Part 58 and *SO_2 NAAQS Designations Source-Oriented Monitoring Technical Assistance Document*
[2]Based on Google Earth
E – east
m – meter
N – north
NE – northeast
NNE – north-northeast
ENE – east-northeast
NNW – north-northwest
NW – northwest
S – south
SE – southeast
SO_2 – sulfur dioxide
SW – southwest
SSW – south-southwest
W – west
> – greater than
< – less than
– number
% – percent

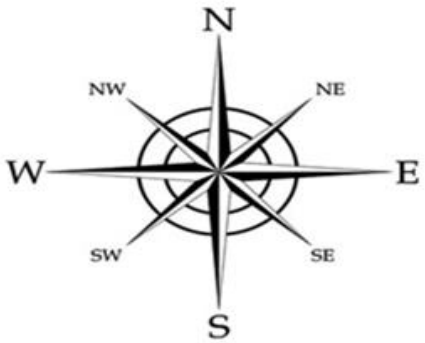


Figure 7: Martin Lake Potential Site #1 Cardinal Direction Photos

Figure 8: Martin Lake Potential Sites #1 Satellite Images

References

Griffith, G. E., S. A. Bryce, J. M. Omernik, J. A. Comstock, A. C. Rogers, B. Harrison, S. L. Hatch, and D. Bezanson. *Ecoregions of Texas*. (2 sided color poster with map, descriptive text, summary tables, and photographs). Reston, Virginia: U.S. Geological Survey, 2004. Scale 1:2,500,000.

"IEM : Site Locator." Iowa Environmental Mesonet. 2016. Accessed April 06, 2016. https://mesonet.agron.iastate.edu/sites/locate.php?network=TX_ASOS

U.S. EPA. EPA Docket ID: EPA-HQ-OAR-2014-0464. *Texas Technical Support Document – Area Designations for the 2010 SO_2 Primary National Ambient Air Quality Standard (EPA-HQ-OAR-2014-0464-0144)*. pp. 145-162. 2016. Accessed October 3, 2016. https://www.regulations.gov/docket?D=EPA-HQ-OAR-2014-0464.

Exhibit D

Monticello Monitor Placement Evaluation

Source Information

- Name: Monticello Steam Electric Station (Monticello) (Figure 2)
- Owner: Luminant Generation Company, LLC
- Facility function: electric generation
- Location: 33.09132, -95.03759, Texas Commission on Environmental Quality (TCEQ) Region 5, Titus County, Texas
- Sulfur dioxide (SO_2) emissions data: 24,399 tons (2013), 20,515 tons (2014)
- Long-term emissions trend: decreasing, 65 percent (%) decrease from 2010 to 2014
- Emission profile: operational seasonally (from May–September, annually), permitted to operate year-round
- Stack height(s): three stacks, S-1 and S-2 – 122 meters (m) high, S-3 – 140 m high, each currently active
- SO_2 emission controls: miscellaneous control methods
- Permit related data: Federal Operating Permit number 064

Existing Air Monitoring Sites

The TCEQ operates five ambient air monitoring sites within a 100 kilometer (km) radius of Monticello. Table 1 details the five closest monitoring sites in order of proximity. Maximum SO_2 ground level concentrations can be expected close to the source. Although one location currently monitors SO_2, none of the existing sites are within reasonable proximity to the source to characterize maximum SO_2 concentrations.

Table 1: Air Monitoring Sites Near Monticello

Site	Distance from Monticello	Current Sulfur Dioxide (SO_2) Monitoring	SO_2 Design Value (2013–2015)
Tyler Airport Relocated	90 km southwest	No	Not applicable
Karnack	94 km southeast	No	Not applicable
Texarkana	97 km northeast	No	Not applicable
Longview	100 km southeast	Yes	46 parts per billion
Greenville	100 km west	No	Not Applicable

km – kilometer

Settings and Surroundings

The primarily rural area surrounding Monticello is located in the eastern most portion of the Floodplains and Low Terraces ecoregions of the East Central Texas Plains. This area is characterized by a mix of dense hardwood forests of oak, ash, pecan, and cedar elm, as well as cleared pastures (Griffith et al. 2004). The elevation ranges from 91 m to 142 m, as shown in Figure 1. No significant changes to the landscape were noted during the reconnaissance as compared to the satellite image shown in Figure 6. Thick elevated vegetation is a factor that may affect wind patterns across this area. Mountain and valley wind channeling, and other terrain related meteorological impacts, are not expected in this area.

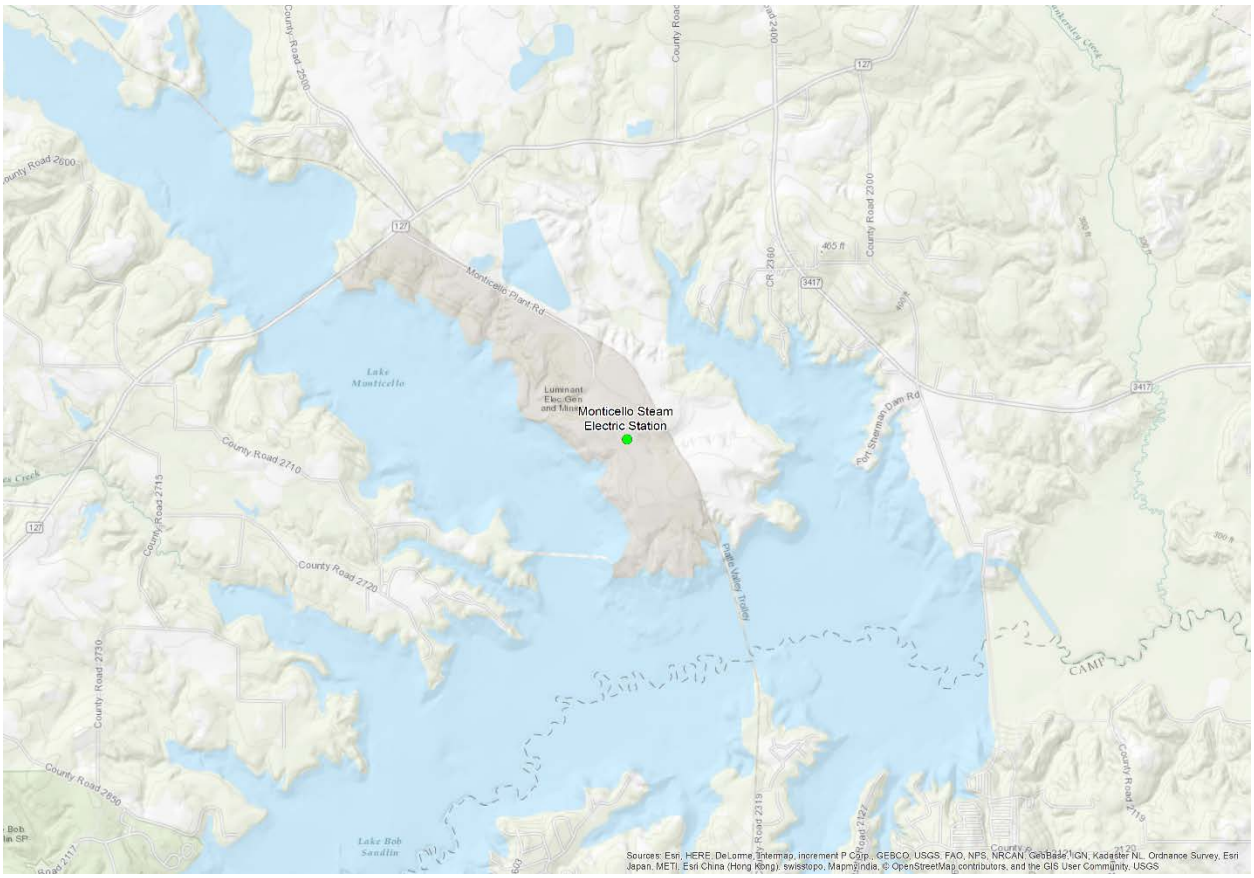


Figure 1: Monticello Area Elevation Map

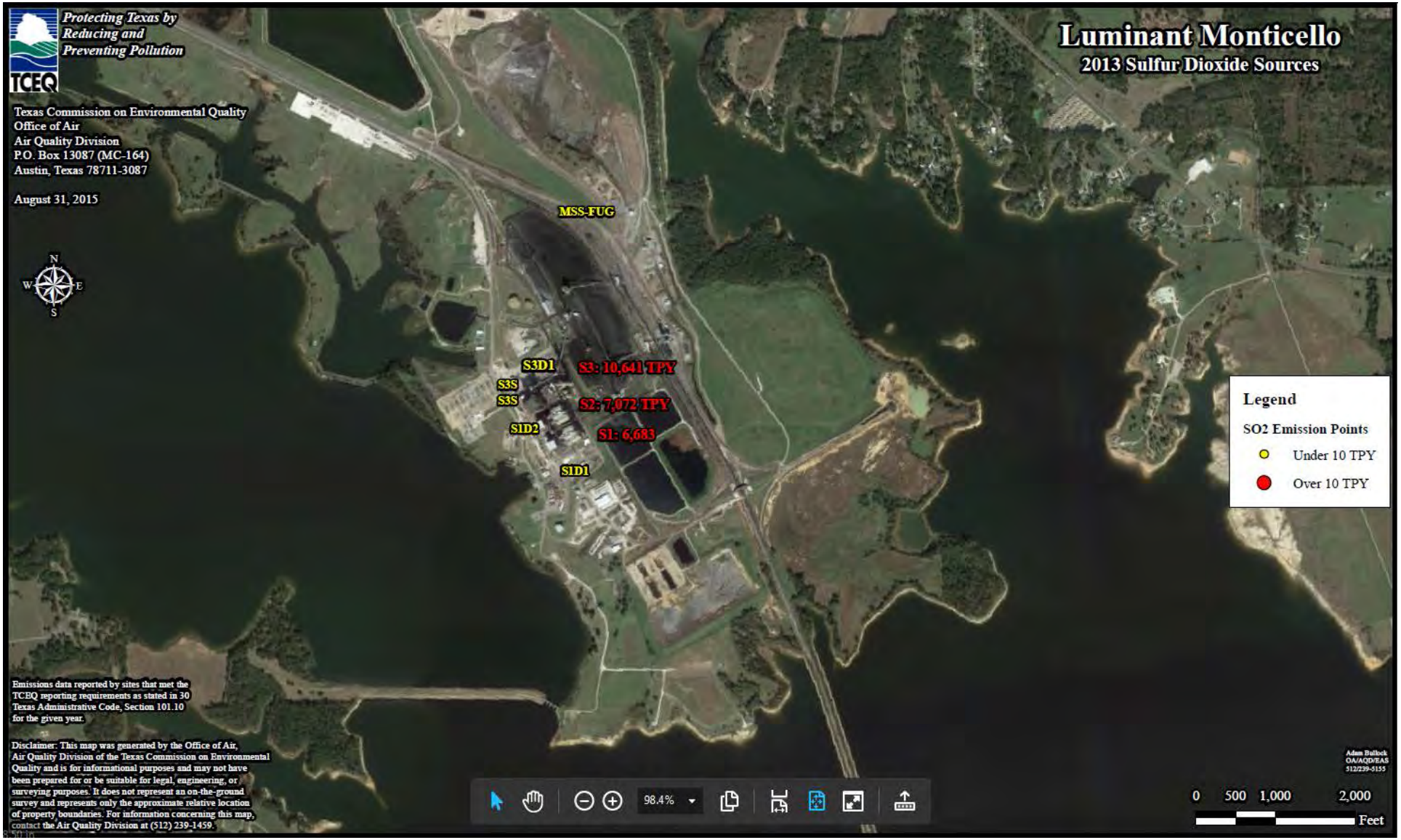


Figure 2: Monticello Sulfur Dioxide (SO_2) Stacks and Emissions, 2013
TPY – tons per year

Meteorological Data

Figure 3 provides illustrations of area annual average wind speed and direction for 2012, 2013, and 2014 from meteorological sensors at the Mount Pleasant Airport, located 7 km east of Monticello. Figure 4 illustrates the 2012-2014 annual average wind speed. The length of each wind rose bar corresponds to the frequency of the wind coming from the indicated direction by percentage. Based on the analysis of the 2012-2014 wind data, the dominant wind flow direction for the area is 105 degrees southeast to 190 degrees south. Approximately 32% of the average area wind flows move from these directions. Over this three year period, calm winds (0-2 miles per hour) occurred on average 26.7% of the time, and wind speeds averaged 5.8 miles per hour (Iowa Environmental Mesonet 2016).

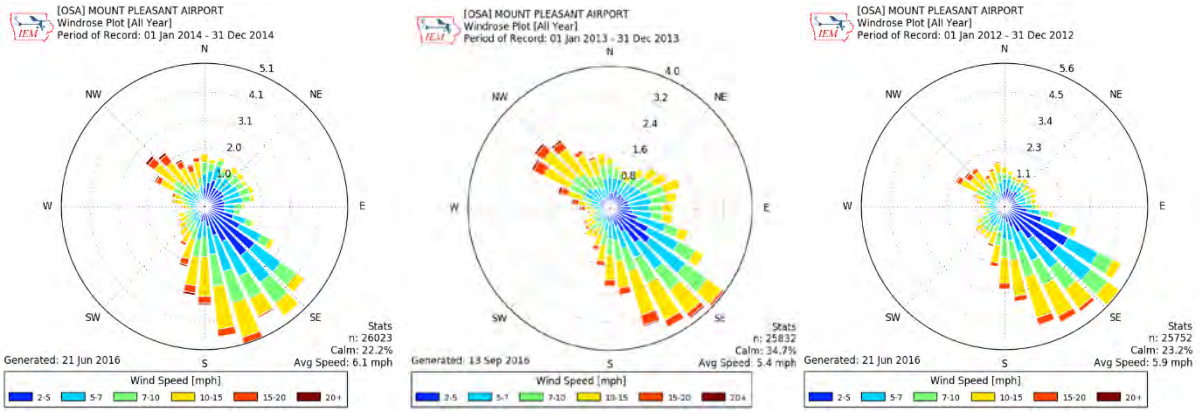


Figure 3: (From right to left) 2012, 2013, and 2014 Individual Wind Rose Plots

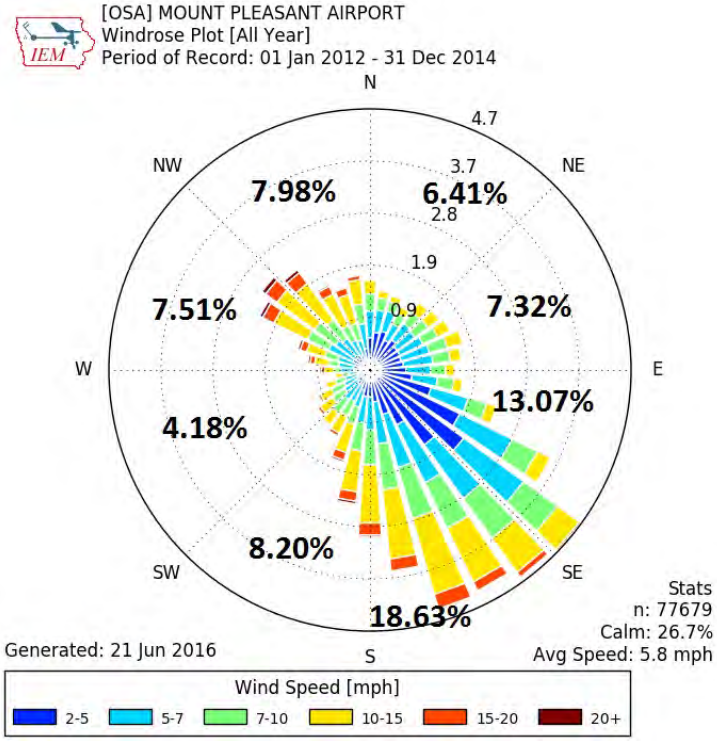
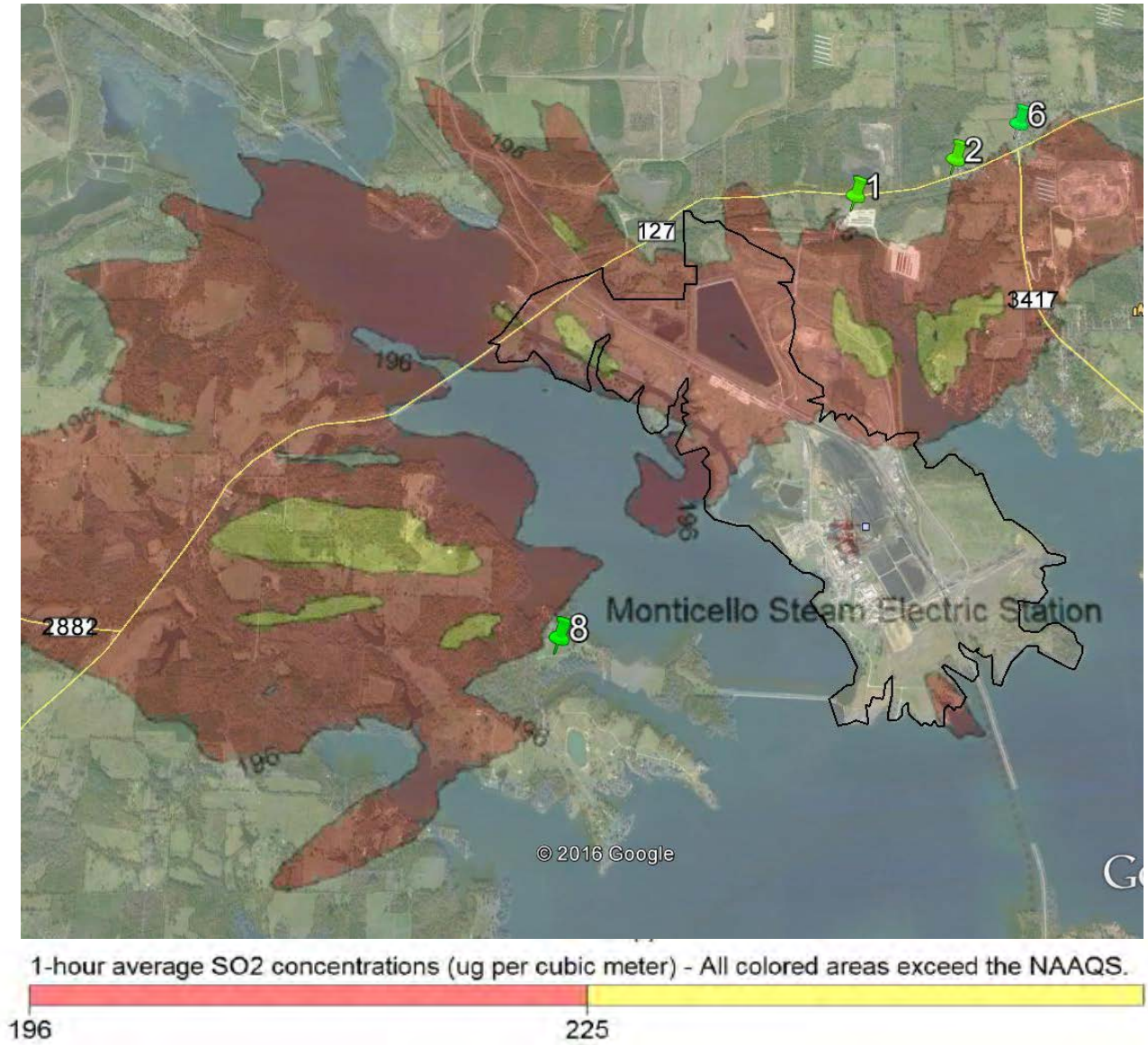


Figure 4: 2012-2014 Combined Average Wind Rose Plot

Modeling Analysis for Monitoring Site Placement

The *SO_2 NAAQS Designations Source-Oriented Monitoring Technical Assistance Document* (Monitoring TAD) suggests that modeling is one technique that may be used to assist in identifying potential monitoring sites. The *SO_2 NAAQS Designations Modeling Technical Assistance Document* (Modeling TAD) notes that for area designations under the 2010 SO_2 National Ambient Air Quality Standard (NAAQS), the AERMOD modeling system should be used, unless use of an alternative model can be justified.

In developing area designations for the 2010 SO_2 NAAQS, AERMOD modeling provided by the Sierra Club was cited in the *Texas Technical Support Document* (EPA docket ID number, EPA-HQ-OAR-2014-0464-0144) as the sole modeling analysis used by the EPA to inform their proposed designation for the Monticello Plant. Given the EPA's reliance on the Sierra Club's modeling for designation purposes, and to facilitate consistency in the EPA's review, the TCEQ has chosen to use this modeling to inform SO_2 monitor placement recommendations near Monticello. The use of the Sierra Club's modeling for monitor replacement decisions does not infer the TCEQ's concurrence with the use of this modeling analysis for any other purpose. Figure 5 shows the Sierra Club's modeled impacts for the 2012-2014 actual facility emissions with TCEQ viable air monitoring sites identified with green pins.



SO_2 – sulfur dioxide
ug – micrograms
NAAQS – National Ambient Air Quality Standards

Scale
(red) – 196–225 micrograms per cubic meter (ug/m^3) average SO_2 concentrations
(yellow) – greater than 225 ug/m^3 average SO_2 concentrations

Figure 5: Sierra Club's Modeled Impacts using Actual Emissions from 2012–2014 for the Monticello Analysis Area

Siting Options and Criteria

The TCEQ does not have SO_2 monitors located in the area surrounding Monticello that would be expected to characterize the highest SO_2 concentrations from this facility, therefore, a new site is proposed. The TCEQ focused on complying with the federal requirements listed in 40 Code of Federal Regulations (CFR) Part 58, Appendix E regarding siting criteria. In addition, the TCEQ evaluated areas for a monitoring site location that would appropriately and sufficiently characterize air quality around an SO_2 emissions source. This approach included utilizing multiple techniques and guidance provided in the Monitoring TAD, such as modeling, local wind roses that reflect data from 2012-2014, and area site reconnaissance.

The modeling analysis provided in Figure 5 suggests that off-property maximum SO_2 concentrations are expected to occur north, north northeast, and northwest of the Monticello facility, with isolated pockets of higher and lower concentrations. In addition, the highest predicted model concentration of SO_2 based on actual emissions from the facility is expected directly north northeast of Monticello (e.g., the highest predicted value occurred approximately 1.5 km to the north northeast of the facility center). While the modeling analysis referenced in this report relied on the wind data from the Longview, Texas Regional Airport, 84 km from the Monticello Plant, the TCEQ's reconnaissance and siting analysis used wind data from the Mount Pleasant Airport, 7 km from the plant (see Figures 3 and 4).

Many areas with anticipated high SO_2 concentrations are not viable for monitoring site deployment due to a lack of power, dense vegetation, or averse property owners. Twelve potential monitoring sites were identified in other areas, as shown in Figure 6. Figure 6 depicts the potential site locations (red and green pins), the corresponding property lines (yellow), and the Monticello permitted property line (black). Eight of the twelve sites (3, 4, 5, 7, 9, 10, 11, and 12) are not considered viable and are indicated by red pins. Upon first contact, property owners at sites 3, 4, 5, 7, 9, 10, 11, and 12 (red pins) either refused access, or the property was unsuitable. The property owner at site 3 declined monitor placement due to its proximity to the rail line. Site 4 has uneven terrain and lacks electricity. Site 5 is heavily industrial. Sites 7, 8, and 9 lack electricity. Site 9 is not accessible, is inside the permitted property, and has uneven ground. Sites 10 and 12 are heavily wooded with dense vegetation. Site 11 is a landfill with no power.

The four identified potential sites (1, 2, 6, and 8) indicated with green pins in Figure 6 are considered viable and meet logistical and siting criteria.

- Site 1 is located 2.54 km north of the Monticello facility in an area anticipated to potentially experience elevated SO_2 concentrations (indicated by a green pin in Figure 6). This site is downwind of the source when winds are from the south, 26.9% of the year on average (see Figure 4). The site offers level ground, adequate space, available power, and is easily accessible (see section "Recommendation" and Table 2). The property owner is amenable to a site agreement.
- Site 2 is positioned 2.95 km north northeast of the Monticello facility and is located in an area anticipated to potentially experience elevated SO_2 concentrations (indicated by a green pin in Figure 6). This site is downwind of the source when winds are from the southwest, 14.4% of the year on average (see Figure 4). The site offers level ground, adequate space, and is easily accessible (see section "Recommendation" and Table 2). The property owner is amenable to a site agreement.

- Site 6 is positioned 3.24 km north northeast of the Monticello facility and is located in an area anticipated to potentially experience elevated SO_2 concentrations (indicated by a green pin in Figure 6). This site is downwind of the source when winds are from the southwest, 14.4% of the year on average (see Figure 4). The site offers level ground, adequate space, available power, and is easily accessible (see section "Recommendation" and Table 2). The property owner is amenable to a site agreement.
- Site 8 is positioned 2.43 km southwest of the Monticello facility and is located in an area anticipated to potentially experience elevated SO_2 concentrations (indicated by a green pin in Figure 6). This site is downwind of the source when winds are from the east, 8.08% of the year on average (see Figure 4). The site offers level ground, adequate space, available power, and is easily accessible (see section "Recommendation" and Table 2). The property owner is amenable to a site agreement.

Recommendation

Pursuant to 40 CFR Sections 51.1201 and 51.1203, the TCEQ recommends an air monitoring station in the area near Monticello to collect and submit air quality data characterizing potential maximum 1-hour ambient concentrations of SO_2 in the area. According to the regulations, the level of the national primary 1-hour annual ambient air quality standard for SO_2 shall be measured at an ambient air monitoring site using a Federal Reference Method (FRM) or a Federal Equivalent Method (FEM) (40 CFR Part 50.17(c)). The TCEQ is proposing to deploy an air monitoring station to characterize SO_2 levels in the area utilizing an automated equivalent method, which is considered an FEM (40 CFR Part 53).

Based on current facility operations, available emission data, wind patterns, logistics, and modeling analyses, Site 1 (Figures 5 and 6) is the recommended location for placement of a new source-oriented ambient SO_2 monitoring station. The most influential factors constraining site placement for Monticello were averse property owners and logistics (e.g., property access and siting criteria). Property owners in areas where modeling predicted the highest concentrations (sites 3, 9, 10, 11 and 12) all declined to negotiate site agreements. Additional locations were considered based on wind rose data but were either logistically unsuitable or declined by property owners (sites 4, 5, and 7).

Historical meteorological data from 2012-2014 (Figure 4) show the area around site 1 is downwind of Monticello during southerly winds, on average 26.9% of the year. Site 1 is the closest viable location to the source (2.54 km) and the predicted off-property maximum normalized SO_2 concentrations with available power, adequate space, and level ground that meets all federal siting criteria. The property owner is amenable to a site agreement.

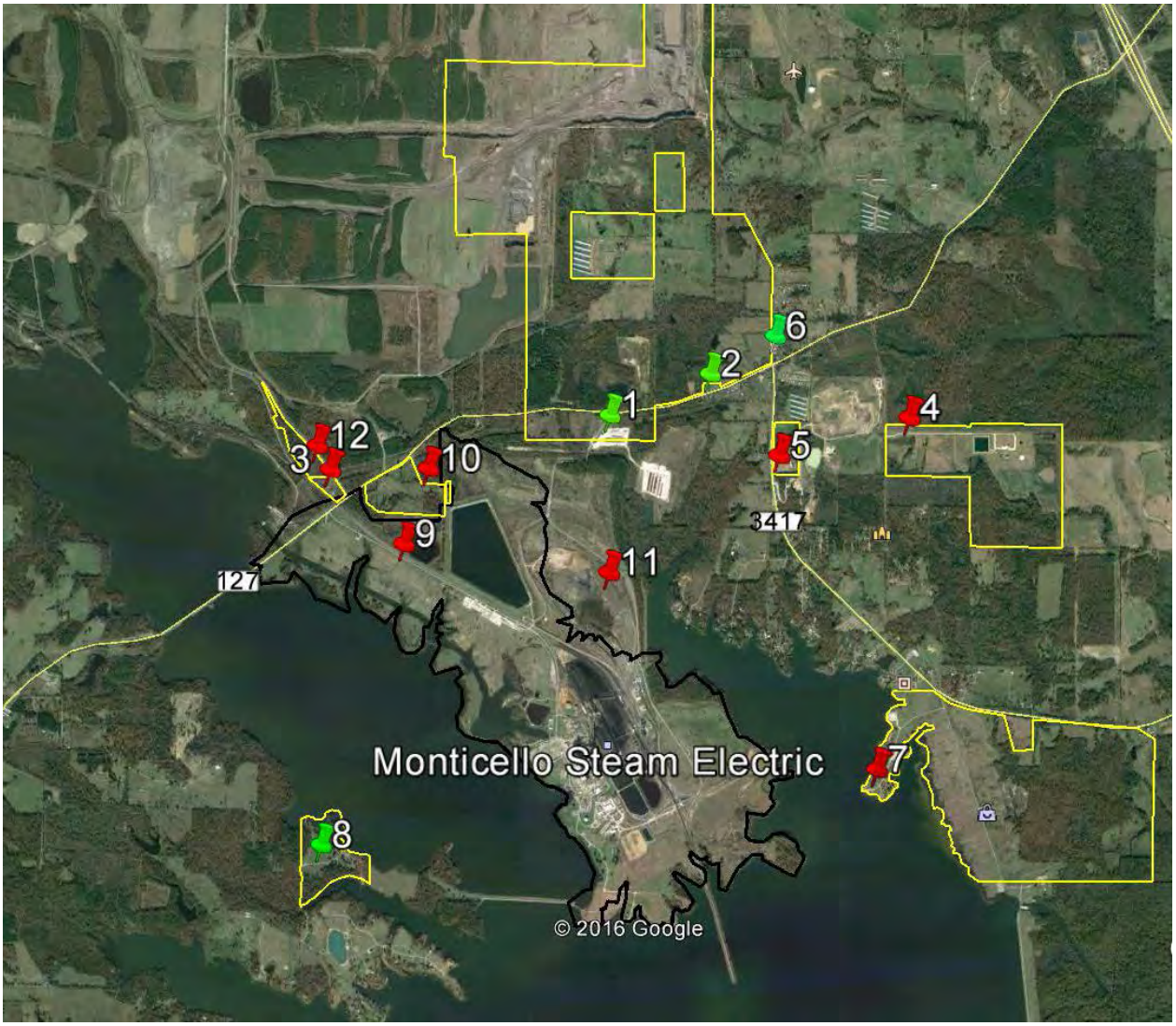


Figure 6: Potential Monticello Area Monitoring Sites

Table 2: Potential Sites Assessment[1]

Site Number	Monticello #1	Monticello #2	Monticello #3
Location[2]	33.11425, -95.03701	33.11688, -95.02874	33.11030, -95.06006
Distance from SO_2 Source[2]	2,544 m	2,952 m	2,970 m
Wind Direction	S, SE	S, SE	S, SE
Grade	<1%	<1%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	Yes; lake (S)	None	Yes; lake (W, SW, S)
Wind Channeling	None	None	None
Downwind[2]	Yes (N)	Yes (NNE)	Yes (NW)
Obstructions and Height	Trees (30 m), Structure (9 m)	Trees (7 m)	Bush (3 m), Trailer (3 m)
Distance from Site to Obstructions	Trees (258 m S) Structure (42 m S)	Trees (65 m N, 64 m NE, 21 m E, 33 m S, 28 m W)	Bush (20 m N) Trailer (15 m W)
Road/Site Access	Yes	Yes	Yes
Electricity Available <18 m	Yes	Yes	Yes
Pros	• Downwind • Level ground • Power available • Space available • High SO_2 modeling • Agreeable property owner • Site access • Close proximity to facility	• Downwind • Level ground • Power available • Space available • High SO_2 modeling • Site access • Agreeable property owner	• Downwind • Level ground • Power available • Space available • High SO_2 modeling • Site access • Close proximity to facility
Cons			• Property owner declined
Viable Site (Yes, No, or Preferred)	Preferred	Yes	No

Site Number	Monticello #4	Monticello #5	Monticello #6
Location[2]	33.11387, -95.01232	33.11128, -95.02306	33.11950, -95.02337
Distance from SO_2 Source[2]	3,520 m	2,640 m	3,440 m
Wind Direction	S, SE	S, SE	S, SE
Grade	<1%	<1%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	None	None	None
Wind Channeling	None	None	None
Downwind[2]	Yes (NE)	Yes (NNE)	Yes (NNE)
Obstructions and Height	Trees (10 m)	Trees (6 m)	Fence (1 m)
Distance from Site to Obstructions	Trees (32 m N, 61 m SE)	Trees (15 m SE)	Fence (1 m SE, SW)
Road/Site Access	Yes	Yes	Yes
Electricity Available <18 m	Yes	Yes	Yes
Pros	• Downwind • Space available • High SO_2 modeling • Site access	• Downwind • Level ground • Power available • High SO_2 modeling	• Downwind • Level ground • Power available • Space available • Agreeable property owner • Site access
Cons	• Power available at a distance • Unleveled ground • Water main under property • Property owner declined	• No space available • Heavy industry • Property owner declined • No site access	• Low SO_2 modeling
Viable Site (Yes, No, or Preferred)	No	No	Yes

Site Number	Monticello #7	Monticello #8	Monticello #9
Location[2]	33.08961, -95.01497	33.08441, -95.06082	33.10517, -95.05396
Distance from SO_2 Source[2]	2,121 m	2,297 m	2,168 m
Wind Direction	S, SE	S, SE	S, SE
Grade	<1%	<1%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	Yes; lake (N, E, S, W)	Yes; lake (N, E, SE)	Yes; lake (SW)
Wind Channeling	None	None	None
Downwind[2]	No (E)	No (W)	Yes (NW)
Obstructions and Height	None	Trees (12 m)	None
Distance from Site to Obstructions	None	Trees (70 m SE, 81 m S)	None
Road/Site Access	Yes	Yes	Yes
Electricity Available <18 m	Yes	Yes	Yes
Pros	• Level ground • Space available • Site access • Close proximity to facility	• Level ground • Space available • Site access • Agreeable property owner	• Downwind • Level ground • Space available • High SO_2 modeling
Cons	• Not downwind • Power available at a distance • Low SO_2 modeling • Property owner declined	• Not downwind • Power available at a distance • Low SO_2 modeling	• Power available at a distance • No site access • Property owner declined • Site within permitted property
Viable Site (Yes, No, or Preferred)	No	Yes	No

Monticello Monitor Placement Evaluation

Site Number	Monticello #10	Monticello #11	Monticello #12
Location[2]	33.11039, -95.05194	33.10321, -95.03708	33.11194, -95.06110
Distance from SO_2 Source[2]	2,505 m	1,323 m	3,171 m
Wind Direction	S, SE	S, SE	S, SE
Grade	<1%	<1%	<1%
Flood Plains	No	No	No
Mountain/Valley Winds	None	None	None
Water Body Within 1,000 m	Yes; lake (S)	Yes; lake (E)	Yes; lake (W)
Wind Channeling	None	None	None
Downwind[2]	Yes (NW)	Yes (N)	Yes (NW)
Obstructions and Height	Trees (12 m)	None	None
Distance from Site to Obstructions	Trees (15 m W, 13 m N, 50 m SW)	None	None
Road/Site Access	Yes	No	No
Electricity Available <18 m	Yes	No	No
Pros	• Downwind • Level ground • Power available • High SO_2 modeling • Close proximity to facility	• Downwind • Level ground • Space available • High SO_2 modeling • Close proximity to facility	• Downwind • Level ground • High SO_2 modeling • Close proximity to facility
Cons	• Heavily wooded area • Property owner declined • No site access	• No power • No site access • Located on landfill site • Property owner declined	• No power • No site access • Heavily wooded area • Property owner declined • No site access
Viable Site (Yes, No, or Preferred)	No	No	No

[1]Based on 40 Code of Federal Regulations Part 58 and *SO_2 NAAQS Designations Source-Oriented Monitoring Technical Assistance Document*
[2]Based on Google Earth
E – east
m – meter
N – north
NA – not applicable
NE – northeast
NNE – north northeast
NW – northwest
S – south
SE – southeast
SO_2 – sulfur dioxide
SW – southwest
W – west
> – greater than
< – less than
– number
% – percent

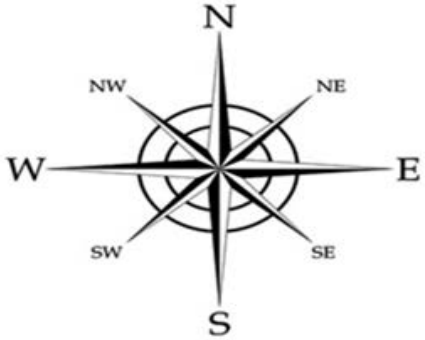


Figure 7: Monticello Potential Site #1 Cardinal Direction Photos

Figure 8: Monticello Potential Site #1 Satellite Image

References

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