IN THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

STATE OF TEXAS, et al., Petitioners, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, et al., Respondents.	No. 17-60088

CORRECTED REPLY IN SUPPORT OF RESPONDENT EPA'S MOTION TO DISMISS OR TRANSFER

Respondent EPA respectfully submits this Reply in Support of its Motion to Dismiss or Transfer (Doc. #00513925836). For the reasons set forth in the Motion and below, this case—addressing four of a set of sixty-five designations made in 2016 in regard to the sulfur dioxide (SO_2) national ambient air quality standard ("NAAQS")—should be dismissed or transferred to the D.C. Circuit so that Petitioners' challenges can be heard alongside many other challenges to this set of SO_2 designations.

1. **The publication of a separate Federal Register notice for these areas should not determine where these challenges are heard.**

Petitioners' argument is based on an illogical premise: that because EPA published its SO_2 designations for four areas in Texas several months after its designations for much of the rest of the country, in a separate notice, challenges to those designations should be adjudicated by this Court even

though most, if not all,[1] other challenges to the agency's 2016 SO_2 designations, including an earlier-filed challenge to these Texas designations brought by another party, will be adjudicated in the D.C. Circuit. This makes no sense. Form (EPA's pragmatic decision to publish four of its 2016 SO_2 designations a few months later than the remainder, in a different Federal Register notice[2]) should not prevail over substance (the designations' shared interpretative and analytical bases). *See Miss. Comm'n on Envtl. Quality v. EPA,* 790 F.3d 138 (D.C. Cir. 2015) (adjudicating challenges to both an initial action designating areas across the country for the 2008 ozone NAAQS and a supplemental action designating twelve areas all in the 7th Circuit).

Petitioners argue that EPA's December 2016 SO_2 designations should be treated differently than EPA's July 2016 designations because their "legal impact . . . is exclusively in Texas," since Texas will have to address the nonattainment status of three areas. Petitioners' Joint Opposition ("Opp.")

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[1] As EPA noted, Mot. at 18 n.5, EPA moved to dismiss or transfer a petition for review of the Final Rule filed in the Seventh Circuit. Argument on EPA's motion is set for May 30, 2017.

[2] EPA does not argue that the Final Rule and Supplemental Rule are collectively one "final action," as Petitioners suggest. *Compare* Opp. at 10 ("EPA's motion rests entirely on the claim that these two different final rules are 'the same EPA final action'") *with* Mot. at 11 ("[t]he *two final actions* are 'nationally applicable'") (emphasis added). Rather, the point is that the fact that EPA made its Round 2 designations in two separately-published actions is immaterial given that those actions were collectively proposed; share a record; and are premised on the same legal interpretations and analytical approaches.

at 15. If correct, this argument logically would apply to *all* of EPA's 2016 SO_2 designations, none of which addresses geographic areas that fall within the D.C. Circuit, and all of which have legal implications for states outside that circuit—meaning that challenges to EPA's sixty-five 2016 SO_2 designations, which span the nation, should be distributed amongst nine courts of appeals. But Petitioners do not follow their argument to its logical extreme; they do not even contend that this Court should hear all of the challenges to EPA's 2016 SO_2 designations for areas in Texas, or in other states in the Fifth Circuit.

Indeed, Petitioners recognize that eight other Texas areas were designated in the July 2016 Final Rule, challenges to which are currently pending before the D.C. Circuit. Opp. at 6. This Court has explained that, where a challenged action is part of a larger "regulation scheme . . . currently the subject of numerous challenges now pending before the D.C. Circuit," transfer to that court is warranted by "the interests of judicial economy, and to eliminate risk of conflicting rulings." *Texas v. EPA*, No. 10-60961, 2011 WL 710598, at *4 (5th Cir. Feb. 24, 2011).[3] Petitioners attempt to avoid a similar

[3] Petitioners argue that EPA "misunderstands or misrepresents" this case. Opp. at 19. Rather, it is Petitioners that have done so. *Texas v. EPA* involved a challenge to an EPA action addressing state implementation plans ("SIPs"), which this Court transferred to the D.C. Circuit because it was nationally applicable. 2011 WL 710598 at *1. The decision also discussed the "Error Correction" Rule, referred to therein as the "Texas-specific FIP." *Id.* at *3. In that rule, the Agency made a finding of nationwide scope and effect, *see* Mot. at

Footnote continued…

result here by arguing that they "cannot challenge the [July 2016 designations] because they did not file petitions for review of that final action." Opp. at 10. In other words, Petitioners argue that the Texas designations in the Supplemental Rule should be treated differently than the Texas designations in the Final Rule simply because *they, in their discretion, chose not to challenge the Final Rule.*[4] This is logically incoherent and, in any event, not relevant to the key issue: whether the challenged action and underlying determinations are national in nature. *See Texas v. EPA*, 2011 WL 710598, at *4 ("Congress intended the D.C. Circuit to review 'matters on which national uniformity is desirable.'") (citation omitted).

2. The challenged actions are nationally applicable and the underlying determinations are of nationwide scope and effect.

As EPA explained, challenges to the Supplemental Rule should be heard in the D.C. Circuit because, like the remainder of EPA's 2016 SO_2 designations, they are predicated on nationally-applicable legal interpretations and a nationwide approach to data evaluation and application. *See* Mot. at 11-

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25 (citing 76 Fed. Reg. 25,178, 25,208-09 (May 3, 2011)), and this Court noted that Texas had "properly challenged [it] . . . in the D.C. Circuit." 2011 WL 710598, at *3.

[4] Although the Texas areas addressed in the Final Rule were designated as unclassifiable/attainment or unclassifiable, like the designations challenged here, they were also based on third party modeling. *See, e.g.,* Final Texas Technical Support Document ("TSD") (EPA-HQ-OAR-2014-0464-0407) at 8-22, (Supp. App. 8-22) (relying on industry-submitted modeling data).

16 (relying, *inter alia*, on *ATK Launch Systems, Inc. v. EPA*, 651 F.3d 1194, 1199 (10th Cir. 2011), where the court held that, because EPA applied a uniform standard, the rule was "nationally applicable" even though its effects were felt locally in the designated areas).[5]

Petitioners argue that EPA's application of the same legal interpretations for all of the 2016 designations is immaterial because its interpretations are "surely" the same for all designations for all pollutants. Opp. at 13. But not only was EPA's interpretation of key terms specific to the context of the 2010 SO_2 NAAQS,[6] Petitioners ignore that EPA also employed a common approach to determining the boundaries for all sixty-five areas designated (by using a five-factor analysis) and a common approach to analyzing and applying data (including that all available information, such as modeling submitted by any party, must be considered). *See* Mot. at 13. Accordingly, were some subset of the determinations to be reviewed in a different forum than the remainder, there would be an obvious risk of inconsistency.

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[5] Petitioners wrongly characterize this argument as a "post hoc" justification. Opp. at 18. This explanation for identifying both the Final and Supplemental Rules as "nationally applicable" and based on determinations "of nationwide scope and effect" is in both preambles. 81 Fed. Reg. 45,039, 45,045/2-3 (July 12, 2016); 81 Fed. Reg. 89,870, 89,875/1-3 (Dec. 13, 2016).

[6] *See, e.g.,* EPA-HQ-OAR-2014-0464-0434, Texas Supplement TSD at 6-7 (App. 15-16) & EPA-HQ-OAR-2014-0464-0356, New York Final TSD at 3-4 (App. 52-53) (discussing commonly-defined terms such as "designated nonattainment area" and "modeled violation").

Indeed, this is evident from Petitioners' Opposition, which demonstrates that Petitioners primarily take issue with EPA's use and application of emissions modeling data for the challenged designations. Opp. at 8. But EPA also evaluated and relied on modeling data (whether submitted by Sierra Club, a state, or industry) when making other designations in the Final Rule, and the Agency's authority for using, analysis of, and/or application of that data will likely be adjudicated by the D.C. Circuit.[7] This is exactly the type of core legal issue and common technical approach that should be reviewed holistically by the D.C. Circuit, lest different courts come to inconsistent conclusions about whether EPA's use of a particular type of information (e.g., modeling within a 50-kilometer area of a plant) is reasonable and lawful.

Petitioners cite EPA's statement that its designations "are based on the weight of the evidence for each area, including available air quality monitoring data and air quality modeling" as proof that the "core determinations" on which the Rule is premised are local, not nationwide, in scope and effect. Opp. at 7 & 17. But not only was EPA's "weight of the evidence" standard applied consistently across all of the 2016 SO_2 Designations, EPA's authority to use air

[7] Petitioners and others addressed EPA's use of modeling data in their comments on the Proposed Rule, and EPA responded to those comments at length in promulgating both the Final and Supplemental Rules. *See, e.g.,* EPA Response to Comments (EPA-HQ-OAR-2014-0464-0389) at 6-12, 14-16 (App. 39-45, 47-49); EPA Supplemental Response to Comments (EPA-HQ-OAR-2014-0464-0438) at 4, 12-14 (App. 4, 6-8).

quality modeling data and its methodology for analyzing such data—issues at the core of Petitioners' challenges (*see* Opp. at 8)—are plainly nationwide issues, as their resolution will have implications for the many areas around the country that EPA designated based on modeling data. Moreover, like Petitioners' suggestion that this Court should hear their challenges because the impact of the designations is in Texas, this argument would logically result in *all* NAAQS designations for *all* pollutants being reviewed piecemeal in the courts of appeals covering the state in which the designated area is found, since all designations are necessarily based in part on area-specific emissions data. That result is plainly contrary to the language, structure, and purpose of 42 U.S.C. § 7607(b)(1). *See Texas v. EPA*, 2011 WL 710598, at *4 ("Centralized review of national issues is preferable to piecemeal review . . . which risks potentially inconsistent results."). Were some local aspects or impacts sufficient to require adjudication in the regional courts of appeals, the first and third prongs of the section 7607(b)(1) analysis would be rendered practically null, as almost all nationally-applicable rules have local impacts.

3. The case law overwhelmingly supports dismissal or transfer.

Petitioners suggest that this Court's decision in *Texas v. EPA*, 829 F.3d 405, 417-24 (5th Cir. 2016), "foreclose[s]" the relief requested. Opp. at 1. It does not. In that case, this Court addressed EPA's disapproval of Texas and Oklahoma's SIPs—an action which, unlike NAAQS designations, the CAA

specifically identifies as "locally or regionally applicable" unless the Administrator makes a nationwide scope and effect finding. *See* 42 U.S.C. § 7607(b)(1); 829 F.3d at 423 (relying on statutory "presumption that review of implementation plans should take place in regional circuits"). While the Court rejected EPA's nationwide scope and effect finding because the challenged disapprovals were based on "intensely factual determinations" and "EPA could not identify with particularity the determinations with nationwide scope or effect that formed the basis of the Final Rule," 829 F.3d at 421-22, it reaffirmed that EPA generally has "discretion to move venue to the D.C. Circuit." *Id.* at 419-20. EPA properly exercised that discretion here, where the designations in the Supplemental Rule are explicitly premised on EPA's uniform national approaches to legal interpretation and data analysis, including its threshold conclusion that it is appropriate for the Agency to base designations on modeling data.

Petitioners also wrongly argue that EPA's Motion conflicts with *Western Oil & Gas Association v. EPA*, 633 F.2d 803 (9th Cir. 1980). *See* Opp. at 14. Critically, the designations challenged in that action were not identified by EPA as "nationally applicable," nor did the agency made a "nationwide scope and effect" finding. 633 F.2d at 807. And the court did not, as Petitioners claim, reject EPA's argument that the amended California designations should be considered the same final action as an earlier rulemaking amending other

designations; rather, it simply concluded that—in the absence of a nationwide scope and effect finding—those designations "appl[ied] locally."[8] *Id.* Here, in contrast, EPA not only designated both the Final and Supplemental Rules "nationally applicable" based on their geographic scope and its reliance on common interpretative and analytical approaches, EPA also found that both the Final and Supplemental Rule are based on determinations of "nationwide scope and effect." 81 Fed. Reg. at 45,045/2-3; 81 Fed. Reg. at 89,875/1-3.

In any event, the two cases Petitioners have (erroneously) identified as supporting their efforts to keep this case in this Circuit—even while the D.C. Circuit reviews EPA's sixty-one other 2016 SO_2 designations for areas across the nation, as well as another party's challenges to the designations at issue here—pale in comparison to the many cases wherein courts dismissed or transferred similar actions to the D.C. Circuit. *See ATK Launch Systems*, 651 F.3d at 1199 (transferring challenges to designations for the 2009 particulate matter NAAQS); *AmerenEnergy Res. Gen. Co. v. EPA*, No. 13-2959 (7th Cir. Dec. 18, 2013) (granting motion to dismiss or transfer challenge to an earlier SO_2 NAAQS designation); *see also Texas v. EPA*, 2011 WL 710598, at *5 (transferring challenge to Texas SIP call); *W. Va. Chamber of Commerce v. Browner*, 166 F.3d 336 (Table), No. 98-1013, 1998 WL 827315, at *5-7 (4th Cir. Dec. 1,

[8] Contrary to Petitioners' suggestion, the contested jurisdictional issue in *Western Oil & Gas Association* was finality, not applicability. *See* 633 F.2d at 807.

1998) (transferring challenge to EPA action on SIPs because it addressed multiple states, was based on a "common core of knowledge and analysis," and a "common legal interpretation … of the Clean Air Act"). And such cases are but a small percentage of the challenges to designations or other actions with local impacts that have been brought in the D.C. Circuit in the first instance. *See, e.g., Miss. Comm'n*, 790 F.3d 138 (addressing designations for the 2008 ozone NAAQS promulgated in multiple Federal Register notices); *Treasure State Res. Indus. Ass'n v. EPA*, 805 F.3d 300 (D.C. Cir. 2015) (addressing earlier SO_2 NAAQS designations for areas across the country); *Catawba Cty., N.C. v. EPA*, 571 F.3d 20 (D.C. Cir. 2009) (addressing area designations for the particulate matter NAAQS); *Pa. Dep't of Envtl. Prot. v. EPA*, 429 F.3d 1125 (D.C. Cir. 2005) (adjudicating challenges to ozone NAAQS designations); *Nat. Res. Def. Council, Inc. v. Thomas*, 838 F.2d 1224, 1249 (D.C. Cir. 1988) (noting, *sua sponte*, that although challenged regulations' impact "falls only on sources in limited geographic areas . . . we think the clearly nationwide scope of the regulation is controlling"); *see also Alcoa, Inc. v. EPA,* No. 04-1189, 2004 WL 2713116, at *1 (D.C. Cir. Nov. 24, 2004) (denying motion to transfer ozone NAAQS designations to the Seventh Circuit).

Thus, the weight of the relevant case law is clearly on EPA's side, and this Court should grant the Agency's motion to dismiss or transfer.[9]

CONCLUSION

For these reasons and those in its Motion, EPA requests that the Court dismiss these petitions for review or transfer them to the D.C. Circuit.

Respectfully submitted,

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Dated: May 4th, 2017

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[9] Petitioners suggest that, if it does not deny EPA's motion, the Court should refer it to the merits panel. But judicial economy weighs against delaying resolution of this issue, particularly since an earlier-filed challenge to the Supplemental Rule, as well as challenges to the Final Rule, are pending before the D.C. Circuit. *See Texas v. EPA*, 2011 WL 710598, at *4 ("[B]ecause the D.C. action has been pending for a longer time . . . Texas's merits arguments may be precluded by the time this Court has an opportunity to pass on them.").

CERTIFICATE OF SERVICE

I hereby certify that the foregoing Corrected Reply was electronically filed with the Clerk of the Court using the CM/ECF system, which will send notification of said filing to the attorneys of record, who are required to have registered with the Court's CM/ECF system.

Date: May 4, 2017

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CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITS

I hereby certify that the foregoing Corrected Reply is proportionately spaced, has a typeface of 14 points, and contains 2,600 words, exclusive of those parts exempted by Federal Rule of Appellate Procedure 32(f). I have relied on Microsoft Word's calculation feature.

Date: May 4, 2017

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EPA's Reply in Support of Its Motion to Dismiss or Transfer:
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Final Technical Support Document

Texas
Area Designations for the 2010 SO_2 Primary National Ambient Air Quality Standard

Summary

Pursuant to section 107(d) of the Clean Air Act (CAA), the U.S. Environmental Protection Agency (EPA, or the Agency) must designate areas as either "unclassifiable," "attainment," or "nonattainment" for the 2010 1-hour sulfur dioxide (SO_2) primary national ambient air quality standard (NAAQS). Section 107(d) of the CAA defines a nonattainment area as one that does not meet the NAAQS or that contributes to a NAAQS violation in a nearby area, 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.

July 2, 2016, is the deadline established by the U.S. District Court for the Northern District of California for the EPA to designate certain areas. This deadline is the first of three deadlines established by the court for the EPA to complete area designations for the 2010 SO_2 NAAQS. This deadline applies to certain areas in Texas because 8 emission sources meet the conditions of the court's order.

Texas submitted updated recommendations on September 18, 2015.[1] Table 1 below lists Texas' recommendations and identifies the counties in Texas that the EPA is designating in order to meet the July 2, 2016, court-ordered deadline. These final designations are based on an assessment and characterization of air quality through ambient air quality data, air dispersion modeling, other evidence and supporting information, or a combination of the above.

Table 1: Texas' Recommended and EPA's Final Designations

Area	Texas' Recommended Area Definition	Texas' Recommended Designation	EPA's Final Area Definition	EPA's Final Designation
Atascosa County, Texas	Atascosa County Borders	Unclassifiable/ Attainment	Same as State's Recommendation (Atascosa County, TX)	Unclassifiable/ Attainment
Fort Bend County, Texas	Fort Bend County Borders	Unclassifiable/ Attainment	Same as State's Recommendation (Fort Bend County, TX)	Unclassifiable/ Attainment
Goliad County, Texas	Goliad County Borders	Unclassifiable/ Attainment	Same as State's Recommendation (Goliad County, TX)	Unclassifiable/ Attainment
Lamb County, Texas	Lamb County Borders	Unclassifiable/ Attainment	Same as State's Recommendation (Lamb County, TX)	Unclassifiable/ Attainment

[1]Note that Texas included Freestone, Milam, Titus, and Rusk Counties in its initial area designation recommendations. However, the EPA is not taking a final designation action for any of those areas at this time.

Area	Texas' Recommended Area Definition	Texas' Recommended Designation	EPA's Final Area Definition	EPA's Final Designation
Limestone County, Texas	Limestone County Borders	Unclassifiable/ Attainment	Same as State's Recommendation (Limestone County, TX)	Unclassifiable/ Attainment
McLennan County, Texas	McLennan County	Attainment	Same as State's Recommendation (McLennan County, TX)	Unclassifiable/ Attainment
Potter County, Texas	Potter County Borders	Unclassifiable	Same as State's Recommendation (Potter County, TX)	Unclassifiable
Robertson County, Texas	Robertson County Borders	Unclassifiable/ Attainment	Same as State's Recommendation (Robertson County, TX)	Unclassifiable/ Attainment

Background

On June 3, 2010, the EPA revised the primary (health based) SO_2 NAAQS by establishing a new 1-hour 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 99th percentile of 1-hour daily maximum concentrations does not exceed 75 ppb. This NAAQS was published in the *Federal Register* on June 22, 2010 (75 FR 35520), and is codified at 40 CFR 50.17. The EPA determined this is the level necessary to protect public health with an adequate margin of safety, especially for children, the elderly, and those with asthma. These groups are particularly susceptible to the health effects associated with breathing SO_2. The two prior primary standards of 140 ppb evaluated over 24 hours, and 30 ppb evaluated over an entire year, codified at 40 CFR 50.4, remain applicable.[2] However, the EPA is not currently designating areas on the basis of either of these two primary standards. Similarly, the secondary standard for SO_2, set at 500 ppb evaluated over 3 hours, codified at 40 CFR 50.5, has not been revised, and the EPA is also not currently designating areas on the basis of the secondary standard.

General Approach and Schedule

Section 107(d) of the CAA requires that not later than 1 year after promulgation of a new or revised NAAQS, state governors must submit their recommendations for designations and boundaries to the EPA. Section 107(d) also requires the EPA to provide notification to states no less than 120 days prior to promulgating an initial area designation that is a modification of a state's recommendation. If a state does not submit designation recommendations, the EPA may promulgate the designations that it deems appropriate without prior notification to the state, although it is our intention to provide such notification when possible. If a state or tribe disagrees with the EPA's intended designations, it is given an opportunity within the 120-day period to

[2] 40 CFR 50.4(e) provides that the two prior primary NAAQS will no longer apply to an area 1 year after its designation under the 2010 NAAQS, except that for areas designated nonattainment under the prior NAAQS as of August 22, 2010, and areas not meeting the requirements of a SIP Call under the prior NAAQS, the prior NAAQS will apply until that area submits and EPA approves a SIP providing for attainment of the 2010 NAAQS. On the effective date of the promulgation of the NAAQS, Texas did not contain any areas subject to the exception.

demonstrate why any proposed modification is inappropriate. The EPA is required to complete designations within 2 years after promulgation of a new or revised NAAQS, unless the EPA determines that sufficient information is not available, in which case the deadline is extended to 3 years. The 3-year deadline for the revised SO_2 NAAQS was June 2, 2013.

On August 5, 2013, the EPA published a final rule establishing air quality designations for 29 areas in the United States for the 2010 SO_2 NAAQS, based on recorded air quality monitoring data from 2009 - 2011 showing violations of the NAAQS (78 FR 47191). In that rulemaking, the EPA committed to address, in separate future actions, the designations for all other areas for which the Agency was not yet prepared to issue designations.

Following the initial August 5, 2013, designations, three lawsuits were filed against the EPA in different U.S. District Courts, alleging the Agency had failed to perform a nondiscretionary duty under the CAA by not designating all portions of the country by the June 2, 2013, deadline. In an effort intended to resolve the litigation in one of those cases, plaintiffs, Sierra Club and the Natural Resources Defense Council, and the EPA filed a proposed consent decree with the U.S. District Court for the Northern District of California. On March 2, 2015, the court entered the consent decree and issued an enforceable order for the EPA to complete the area designations according to the court-ordered schedule.

According to the court-ordered schedule, the EPA must complete the remaining designations by three specific deadlines. By no later than July 2, 2016 (16 months from the court's order), 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). Specifically, a stationary source with a coal-fired unit that, as of January 1, 2010, had a capacity of over 5 megawatts and otherwise meets the emissions criteria, is excluded from the July 2, 2016, deadline if it had announced through a company public announcement, public utilities commission filing, consent decree, public legal settlement, final state or federal permit filing, or other similar means of communication, by March 2, 2015, that it will cease burning coal at that unit.

The last two deadlines for completing remaining designations are December 31, 2017, and December 31, 2020. The EPA has separately promulgated requirements for state and other air agencies to provide additional monitoring or modeling information on a timetable consistent with these designation deadlines. We expect this information to become available in time to help inform these subsequent designations. These requirements were promulgated on August 21, 2015 (80 FR 51052), in a rule known as the SO_2 Data Requirements Rule (DRR), codified at 40 CFR part 51 subpart BB.

Updated designations guidance was issued by the EPA 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. This memorandum supersedes earlier designation guidance for the 2010 SO_2 NAAQS, issued on March 24, 2011, and it identifies factors that the

EPA intends to evaluate in determining whether areas are in violation of the 2010 SO_2 NAAQS. The guidance also contains the factors the EPA intends to evaluate in determining the boundaries for all remaining areas in the country, consistent with the court's order and schedule. These factors include: 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. This guidance was supplemented by two non-binding technical assistance documents intended to assist states and other interested parties in their efforts to characterize air quality through air dispersion modeling or ambient air quality monitoring for sources that emit SO_2. Notably, the EPA's documents titled, "SO_2 NAAQS Designations Modeling Technical Assistance Document" (Modeling TAD) and "SO_2 NAAQS Designations Source-Oriented Monitoring Technical Assistance Document" (Monitoring TAD), were available to states and other interested parties. Both of these TADs were most recently updated in February 2016.

Based on complete, quality assured and certified ambient air quality data collected between 2013 and 2015, no violations of the 2010 SO_2 NAAQS have been recorded at ambient air quality monitors in any undesignated part of Texas. However, there are 8 sources in the State meeting the emissions criteria of the consent decree for which the EPA must complete designations by July 2, 2016. In this final technical support document, the EPA discusses its review and technical analysis of Texas's updated recommendations for the areas that we must designate. The EPA also discusses any intended and final modifications from the State's recommendation based on all available data before us.

The following are definitions of important terms used in this document:

1) 2010 SO_2 NAAQS – the primary NAAQS for SO_2 promulgated in 2010. This NAAQS is 75 ppb, based on the 3-year average of the 99th percentile of the annual distribution of daily maximum 1-hour average concentrations. See 40 CFR 50.17.
2) Attaining monitor – an ambient air monitor meeting all methods, quality assurance, and siting criteria and requirements whose valid design value is equal to or less than 75 ppb, based on data analysis conducted in accordance with Appendix T of 40 CFR part 50.
3) Design Value – a statistic computed according to the data handling procedures of the NAAQS (in 40 CFR part 50 Appendix T) that, by comparison to the level of the NAAQS, indicates whether the area is violating the NAAQS.
4) Designated nonattainment area – an area which the EPA has determined has violated the 2010 SO_2 NAAQS or contributed to a violation in a nearby area. A nonattainment designation reflects considerations of the state's recommendations and all of the information discussed in this document. The EPA's decision is based on all available information including the most recent 3 years of air quality monitoring data, available modeling analyses, and any other relevant information.
5) Designated unclassifiable area – an area for which the EPA cannot determine based on all available information whether or not it meets the 2010 SO_2 NAAQS.
6) Designated unclassifiable/attainment area – an area which the EPA has determined to have sufficient evidence to find either is attaining or is likely to be attaining the NAAQS. The EPA's decision is based on all available information including the most recent 3

years of air quality monitoring data, available modeling analyses, and any other relevant information.

7) Modeled violation – a violation based on air dispersion modeling.
8) Recommended attainment area – an area a state or tribe has recommended that the EPA designate as attainment.
9) Recommended nonattainment area – an area a state or tribe has recommended that the EPA designate as nonattainment.
10) Recommended unclassifiable area – an area a state or tribe has recommended that the EPA designate as unclassifiable.
11) Recommended unclassifiable/attainment area – an area a state or tribe has recommended that the EPA designate as unclassifiable/attainment.
12) Violating monitor – an ambient air monitor meeting all methods, quality assurance, and siting criteria and requirements whose valid design value exceeds 75 ppb, based on data analysis conducted in accordance with Appendix T of 40 CFR part 50.

Technical Analysis for Atascosa County, Texas

Introduction

The Atascosa County, Texas, area contains a stationary source that, according to the EPA's Air Markets Database, emitted in 2012 either more than 16,000 tons of SO_2 or more than 2,600 tons of SO_2 and had an annual average emission rate of at least 0.45 pounds of SO_2 per one million British thermal units (lbs SO_2/mmBTU). Specifically, in 2012, the San Miguel Lignite Fired Power Plant (San Miguel Power Plant) emitted 10,950 tons of SO_2, and had an emissions rate of 0.63 lbs SO_2/MMBTU. As of March 2, 2015, this stationary source had not met the criteria for being "announced for retirement." Pursuant to the March 2, 2015, court-ordered schedule, the EPA must designate the area surrounding this facility by July 2, 2016.

In its September 18, 2015, submission, Texas recommended that the area surrounding the San Miguel Power Plant facility, specifically the entirety of Atascosa County, be designated as unclassifiable/attainment, based on an assessment and characterization of air quality from the facility and other nearby sources which may have a potential impact in the area of analysis where maximum concentrations of SO_2 are expected. This assessment and characterization was performed using air dispersion modeling software, i.e., AERMOD, analyzing actual emissions.

On February 11, 2016, the EPA notified Texas that we intended to designate the area around San Miguel Power Plant area as unclassifiable/attainment. Additionally, we informed Texas that our intended boundaries for the unclassifiable/attainment area consisted of the entirety of Atascosa County, Texas. Our intended designation and associated boundaries were based on, among other things, modeling submitted by the State in which the EPA identified no major issues. The modeling showed attainment, and the modeling was in accordance with the Modeling TAD and published EPA guidance. We determine that the area within Atascosa County was the appropriate boundary area for this designation, based upon the State's recommendation. Additionally, the EPA confirmed that there are no other sources in Atascosa County or near its borders that are likely to cause or contribute to a violation of the 2010 SO_2 NAAQS within Atascosa County.

Detailed rationale, analyses, and other information supporting our intended designation for this area can be found in the preliminary technical support document for Texas. This document along with all others related to this rulemaking can be found in Docket ID EPA-HQ-OAR-2014-0464.

Assessment of New Information

In our February 11, 2016, notification to Texas regarding our intended unclassifiable/attainment designation for the Atascosa County area, the EPA requested that any additional information that the Agency should consider prior to finalizing the designation should be submitted by April 19, 2016. On March 1, 2016, the EPA also published a notice of availability and public comment period in the *Federal Register,* inviting the public to review and provide input on our intended designations by March 31, 2016 (81 FR 10563).

The EPA is explicitly incorporating and relying upon the analyses and information presented in the preliminary technical support document for the purposes of our final designation for this area, except to the extent that any new information submitted to the EPA or conclusions presented in this final technical support document and our response to comments document (RTC), available in the docket, supersede those found in the preliminary document.

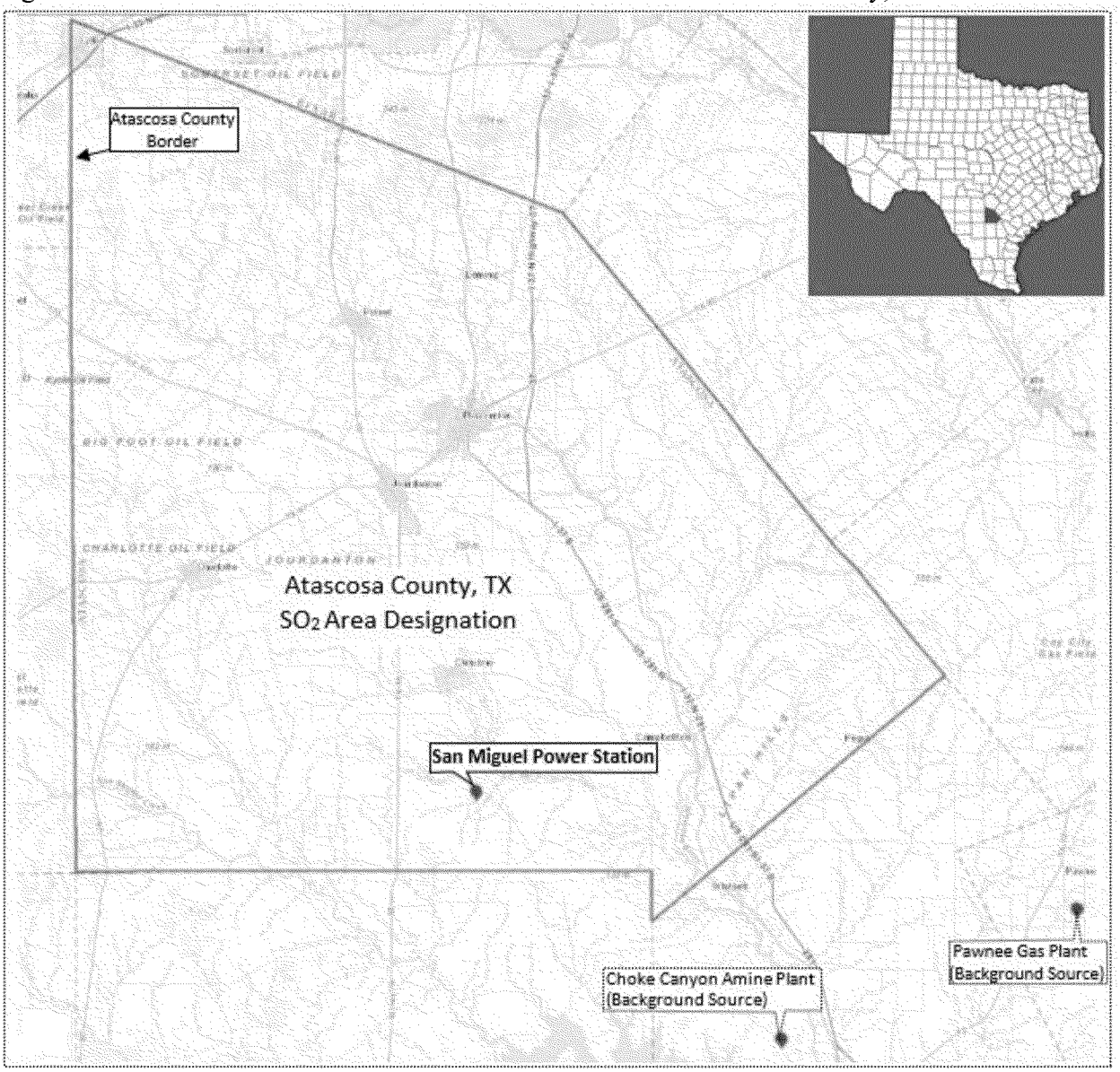
The EPA received responses from Texas supporting our intended designation for the area, and we did not receive any comments from the public. A summary of the comments and our responses can be found in the RTC.

Conclusion

The EPA concludes that Atascosa Count is meeting the 2010 primary SO_2 NAAQS. Therefore, the EPA is designating Atascosa County, Texas, as unclassifiable/attainment for the 2010 SO_2 NAAQS. This is based on the available information including the analyses performed for the purposes of the preliminary technical support document, and the absence of any new information that would otherwise lead to a different conclusion regarding air quality in the area or any new information that would otherwise lead to a different conclusion regarding the area boundaries.

The boundaries for this unclassifiable/attainment area consist of the entirety of Atascosa County borders, and are shown in the figure below. Also included in the figure are nearby emitters of SO_2, and Texas' recommended area, which is the same as the EPA's recommendation.

Figure 1: The EPA's Final Unclassifiable/Attainment Area: Atascosa County, Texas



At this time, our final designations for the State only apply to this area and the others contained in this final technical support document. Consistent with the court-ordered schedule, the EPA

will evaluate and designate all remaining undesignated areas in Texas by either December 31, 2017, or December 31, 2020.

Technical Analysis for Fort Bend County, Texas

Introduction

The Fort Bend County, Texas, area contains a stationary source that, according to the EPA's Air Markets Database, emitted in 2012 either more than 16,000 tons of SO_2 or more than 2,600 tons of SO_2 and had an annual average emission rate of at least 0.45 pounds of SO_2 per one million British thermal units (lbs SO_2/mmBTU). Specifically, in 2012, the W.A. Parish Electric Generating Station (W.A. Parish Station) emitted 37,861 tons of SO_2 and had an emissions rate of 0.49 lbs SO_2/mmBTU. As of March 2, 2015, this stationary source had not met the criteria for being "announced for retirement." Pursuant to the March 2, 2015, court-ordered schedule, the EPA must designate the area surrounding this facility by July 2, 2016.

In the September 18, 2015, submission, Texas recommended that the area surrounding the W.A. Parish Station, specifically Fort Bend County, be designated as unclassifiable/attainment. This was based on an assessment and characterization of air quality from the facility and other nearby sources, which may have a potential impact in the area of analysis where maximum concentrations of SO_2 are expected. This assessment and characterization was performed using air dispersion modeling software, i.e., AERMOD, analyzing actual emissions completed by industry on behalf of the WA Parish Station.

On February 11, 2016, the EPA notified Texas that we intended to designate the Fort Bend County, Texas area as unclassifiable, due to our view that based on available information we could not determine whether the area was meeting the NAAQS. Additionally, we informed Texas that our intended boundaries for the unclassifiable area consisted of the entirety of Fort Bend County. Our intended designation and associated boundaries were based on, among other things, insufficient information available at the time of intended designations to determine whether or not the area meets the 2010 SO_2 NAAQS.

As summarized in the preliminary technical support document for Texas, the EPA received three modeling analysis submittals from Sierra Club, three modeling analysis submittals from industry, and one modeling analysis submittal from the State as prepared by industry for the analysis area surrounding the W.A. Parish Station.

The EPA determined that the modeling analyses submitted from all parties prior to the proposed designation were either inconsistent with EPA's Modeling TAD or were submitted too late for formal consideration at the proposal state. Specifically, EPA noted that the submittal received

from Sierra Club before our intended designation contained model input errors (i.e., stack parameters for several on-site sources did not accurately reflect the actual stack parameters) and additional areas in the modeling approach needed to be further refined (i.e., seasonal, diurnal background concentrations; updates to land use data so that calculated surface characteristics are more representative of current surface characteristics) in order to be consistent with the Modeling TAD. Industry submitted modeling on January 25, 2016, not allowing sufficient time prior to our intended designation of the area to determine if the modeling is sufficient to support a designation of unclassifiable/attainment as it requested. Therefore, based on the information available at the time, our intended designation for the Fort Bend County, Texas areas was unclassifiable.

As stated in the preliminary technical support document, the EPA continued our review of the January 2016 industry submittal and considered this submittal in our final designation, as discussed later in this document. The boundaries for this intended designation were the jurisdictional boundaries of Fort Bend County, Texas, based upon the State's recommendation. Additionally, the EPA confirmed that there are no other sources in Fort Bend County or near its borders that are likely to cause or contribute to a violation of the NAAQS within Fort Bend County.

Detailed rationale, analyses, and other information supporting our intended designation for this area can be found in the preliminary technical support document for Texas, and this document along with all others related to this rulemaking can be found in Docket ID EPA-HQ-OAR-2014-0464.

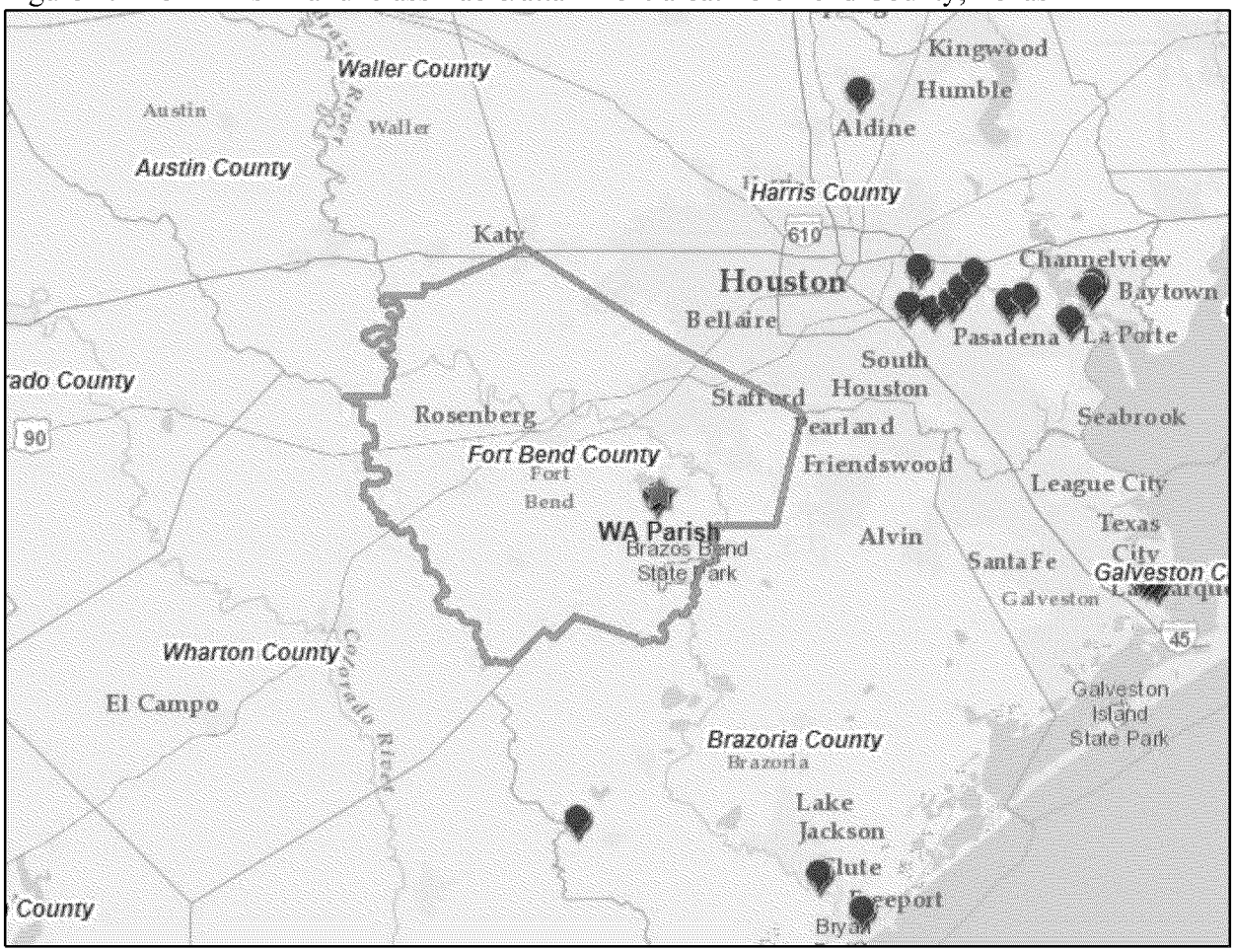
Assessment of New Information

In our February 11, 2016, notification to Texas regarding our intended unclassifiable designation for the Fort Bend County, Texas, area, the EPA requested that any additional information that the Agency should consider prior to finalizing the designation should be submitted by April 19, 2016. On March 1, 2016, the EPA also published a notice of availability and public comment period in the *Federal Register,* inviting the public to review and provide input on our intended designations by March 31, 2016 (81 FR 10563).

The EPA is explicitly incorporating and relying upon the analyses and information presented in the preliminary technical support document for the purposes of our final designation for this area, except to the extent that any new information submitted to the EPA or conclusions presented in this final technical support document and our response to comments document (RTC), available in the docket, supersede those found in the preliminary document.

As further discussed below, after carefully considering all available data and information, the EPA determines that the Fort Bend County, Texas area is meeting the NAAQS, and therefore is designating the area as unclassifiable/attainment for the 2010 SO_2 NAAQS. The boundaries for this unclassifiable/attainment area consist of Fort Bend County in its entirety, and are shown in the figure below. Also included in the figure are nearby emitters of SO_2 and Texas's recommended area.

Figure 1: The EPA's final unclassifiable/attainment area: Fort Bend County, Texas



As noted above, the EPA received information from industry regarding our intended designation for this area prior to the February 11, 2016, notification to the State. However, due to the timing of receipt relative to the scheduled timeline for announcing our intended designation, the EPA was not able to evaluate the information at that time; this final technical support document incorporates our analyses and conclusions regarding that information.

The EPA received substantive comments regarding our intended unclassifiable designation for the Fort Bend County, Texas, area, and a comprehensive summary of these comments and our responses can be found in the RTC.

Also, additional information, specifically air dispersion modeling, were submitted to the EPA during the State and public comment period in order to characterize air quality in the Fort Bend, Texas, area. Notably, industry provided additional air dispersion modeling information during the comment period asserting that the area surrounding the W.A. Parish Station should be designated as unclassifiable/attainment based on their most recent modeling analysis. The information submitted by industry during the public comment period was a resubmittal of the latest industry air dispersion modeling that was received prior to our intended designation but the timing of receipt did not allow for full evaluation prior to our intended designations. This information was submitted to support a modification to either our proposed designation, our proposed designation boundaries for the area, or both. The discussion and analysis of this new information that follow reference the Modeling TAD, Monitoring TAD, and the factors for evaluation contained in the EPA's March 20, 2015, guidance, as appropriate and applicable. The State referenced modeling that had been completed by Industry. No new or revised modeling was received from the state or third parties.

Model Selection and Modeling Components

The EPA's Modeling TAD notes that for area designations under the 2010 SO_2 NAAQS, the AERMOD modeling system should be used, unless use of an alternative model can be justified. In some instances the recommended model may be a model other than AERMOD, such as the BLP model for buoyant line sources. The AERMOD modeling system contains the following components:

- AERMOD: the dispersion model
- AERMAP: the terrain processor for AERMOD
- AERMET: the meteorological data processor for AERMOD
- BPIPPRIME: the building input processor
- AERMINUTE: a pre-processor to AERMET incorporating 1-minute automated surface observation system (ASOS) wind data
- AERSURFACE: the surface characteristics processor for AERMET
- AERSCREEN: a screening version of AERMOD

Industry used AERMOD version 15181, and a discussion of the individual components will be referenced in the corresponding discussion that follows, as appropriate.

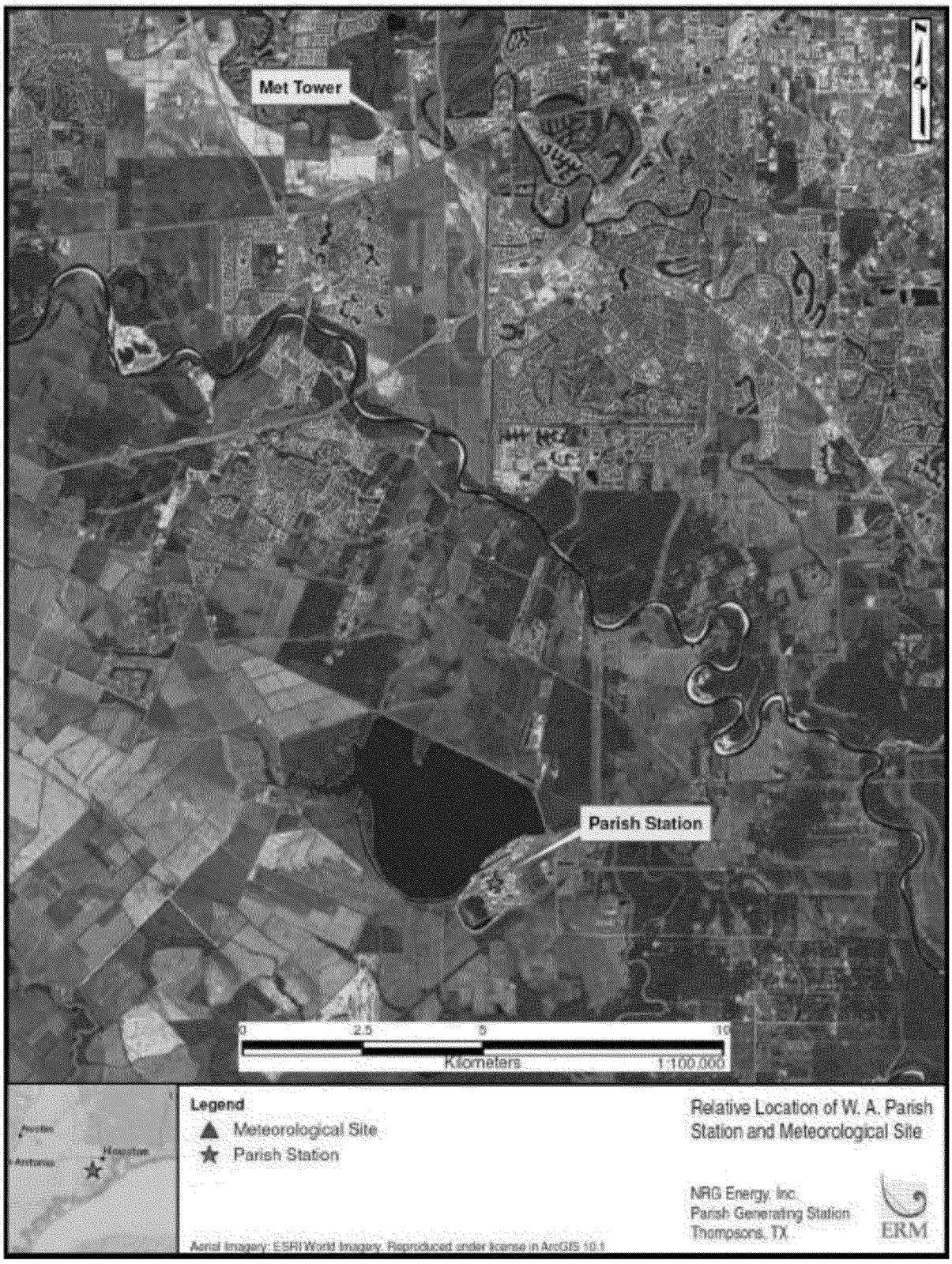
Modeling Parameter: Rural or Urban Dispersion

The EPA's recommended procedure for characterizing an area by prevalent land use is based on evaluating the dispersion environment within 3 km of the facility. According to the EPA's modeling guidelines contained in documents such as the Modeling TAD, rural dispersion coefficients are to be used in the dispersion modeling analysis if more than 50% of the area within a 3 km radius of the facility is classified as rural. Conversely, if more than 50% of the area is urban, urban dispersion coefficients should be used in the modeling analysis. When

performing the modeling for the area of analysis, industry determined that it was most appropriate to run the model in rural mode.

Based on our review of aerial photography of the area surrounding the facility, the determination to run the model in rural mode is appropriate (see Figure 2).

Figure 2: Aerial image by industry showing W.A. Parish Station and surrounding area



Modeling Parameter: Area of Analysis (Receptor Grid)

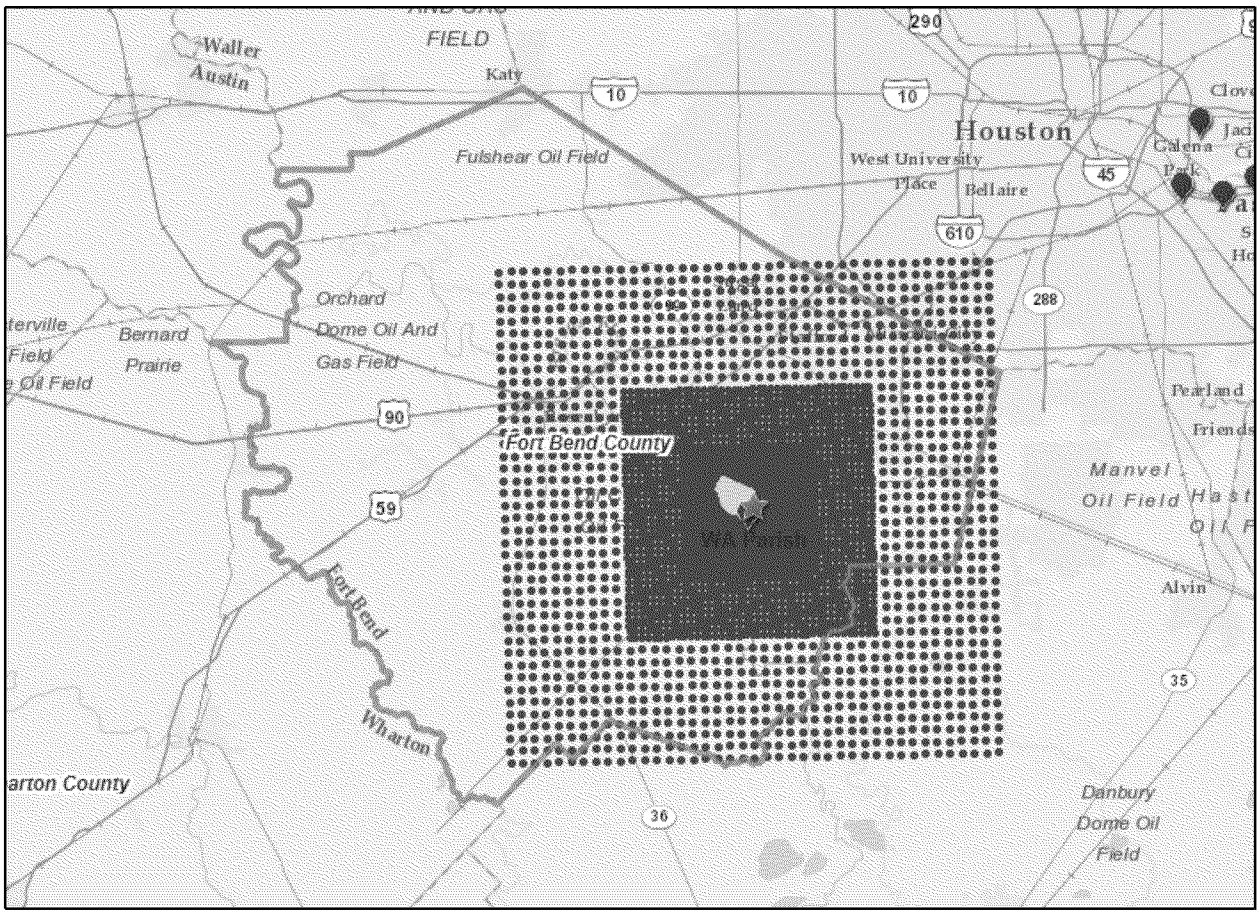
The EPA's view is that a reasonable first step towards characterization of air quality in the area surrounding the W.A. Parish Station is to determine the extent of the area of analysis, i.e., receptor grid. Considerations presented in the Modeling TAD include but are not limited to: the location of the SO_2 emission sources or facilities considered for modeling; the extent of significant concentration gradients of nearby sources; and sufficient receptor coverage and density to adequately capture and resolve the model predicted maximum SO_2 concentrations.

The grid receptor spacing for the area of analysis chosen by industry is as follows:

- 50-meter spacing along the facility fence line
- 100-meter spacing extending from the fence line to 3 kilometers
- 200-meter spacing extending from 3 to 5 kilometers
- 500-meter spacing extending from 5 to 10 kilometers
- 1,000-meter spacing extending from 10 to 20 kilometers

The receptor network contained 6,909 receptors and covered the majority of Fort Bend County and small portions southwest of Harris County and northwest of Brazoria County. Figure 3, shows the chosen area of analysis surrounding the W.A. Parish Station, as well as the receptor grid for the area of analysis. Industry conservatively did not exclude any receptors from the modeling based on the Modeling TAD's option not to include those locations where it would not be feasible to place a monitor and record ambient impacts. The impacts of the area's geography and topography are discussed later.

Figure 3: Receptor grid for the W.A. Parish area of analysis



Industry reviewed the locations of all major sources of SO_2 within 50 kilometers of W.A. Parish station to determine what off-site sources may need to be included in the modeling analysis. It concluded that the closest source emitting at least 2,000 tons was the Rhodia Chemical Plant in Houston (Harris County) located 44.6 km to the northeast of the W.A. Parish station. After further review of the following factors industry did not include the Rhodia facility as a modeled source from the modeling due to:

- Distance from W.A. Parish station;
- Direction upwind and downwind of W.A. Parish station and frequency that the wind blows in those directions; and
- The presence of a significant concentration gradient in the direction of the sources being considered.

As discussed in the TSD accompanying the intended designations, Sierra Club modeling did include the Rhodia facility in their cumulative modeling analysis. However, comparison of the SO_2 modeling results shown in the December 15, 2015, Sierra Club submittal both with and without Rhodia emissions included does not show any difference in the maximum modeled impacts. Industry also noted that Sierra Club's modeling including Rhodia was conservative and not representative of the facility's emissions because they included modeled emission rates based on the facility's 2012 operating permit, which do not reflect the SO_2 controls installed after 2012.

Industry stated that current emission rates from Rhodia are lower than the emission rates that Sierra Club modeled and that the 2014 emissions were less than 1,000 tpy. Review of 2014 State Emissions Inventory information confirmed that actual emissions for the facility were approximately 921 tpy.

Modeling Parameter: Source Characterization

Industry characterized the sources within the area of analysis in accordance with practices outlined as acceptable in the Modeling TAD. Specifically, industry used actual stack heights in conjunction with actual emissions. Industry also adequately characterized the source's building layout and location, as well as the stack parameters, e.g., exit temperature, exit velocity, location, and diameter.

Modeling Parameter: Emissions

The EPA's Modeling TAD notes that for the purposes of modeling to characterize air quality for use in designations, the recommended approach is to use the most recent 3 years of actual emissions data and concurrent meteorological data. However, the Modeling TAD also provides for the flexibility of using allowable emissions in the form of the most recently permitted (referred to as PTE or allowable) emissions rate.

The continuous emissions monitoring systems (CEMS) data provide acceptable historical emissions information when it is available and that these data are available for many electric generating units. In the absence of CEMS data, the EPA's Modeling TAD highly encourages the use of AERMOD's hourly varying emissions keyword HOUREMIS or through the use of AERMOD's variable emissions factors keyword EMISFACT. When choosing one of these methods, the detailed throughput, operating schedules, and emissions information from the impacted sources should be used.

In certain instances, states and other interested parties may find that it is more advantageous or simpler to use PTE rates as part of their modeling runs. Specifically, a facility may have recently adopted a new federally enforceable emissions limit, been subject to a federally enforceable consent decree, or implemented other federally enforceable mechanisms and control technologies to limit SO_2 emissions to a level that indicates compliance with the NAAQS. These new limits or conditions may be used in the application of AERMOD. In these cases, the Modeling TAD notes that the existing SO_2 emissions inventories used for permitting or SIP planning demonstrations should contain the necessary emissions information for designations-related modeling. In the event that these short-term emissions are not readily available, they may be calculated using the methodology in Table 8-1 of Appendix W to 40 CFR Part 51 titled, "Guideline on Air Quality Models."

For W.A. Parish Station in the area of analysis, industry used actual emissions from the most recent 3-year data set available at the time of the modeling analysis, i.e., 2012 - 2014. These emissions data were obtained from CEMS data and included hourly data. Industry also utilized variable stack temperatures and exit velocities. Industry's latest modeling, which was resubmitted as part of the public comment period, addressed and corrected modeled stack

parameters (stack heights and diameters for some of the W.A. Parish Station sources) that were identified to be erroneous in previous modeling submittals.

These potential errors were based on EPA's review of modeled stack parameters compared to emissions inventory stack information. As part of their January 2016 response to EPA's request for additional information, industry reviewed the identified stack parameter inconsistencies and provided updated information, including revised modeling, as necessary.

Modeling Parameter: Meteorology and Surface Characteristics

The most recent 3 years of meteorological data (concurrent with the most recent 3 years of emissions data) should be used in designations efforts. As noted in the Modeling TAD, the selection of data should be based on spatial and climatological (temporal) representativeness. The representativeness of the data are based on: 1) the proximity of the meteorological monitoring site to the area under consideration, 2) the complexity of terrain, 3) the exposure of the meteorological site, and 4) the period of time during which data are collected. Sources of meteorological data include National Weather Service (NWS) stations, site-specific or onsite data, and other sources such as universities, the Federal Aviation Administration (FAA), and military stations.

For the Fort Bend County, Texas, area of analysis, surface meteorology from the NWS station at Sugar Land Regional Airport in Sugar Land, TX (WBAN No. 12977), approximately 15 km to the north, and coincident upper air observations from Lake Charles, LA (WBAN No. 03937), approximately 250 km to the northeast, were selected as best representative of meteorological conditions within the area of analysis.

Industry used AERSURFACE version 13016 using data from the NWS station in Sugar Land, Texas (located at 29.6197, -95.6575) to estimate the surface characteristics of the area of analysis. Industry estimated values for 12 spatial sectors out to 1 km at a monthly temporal resolution for moisture conditions defined by month. Industry also estimated values for albedo (the fraction of solar energy reflected from the earth back into space), the Bowen ratio (the method generally used to calculate heat lost or heat gained in a substance), and the surface roughness (sometimes referred to as "Zo"). In Figure 2 submitted by industry, the location of the Sugar Land, Texas, NWS station is shown relative to the W.A. Parish Station in the area of analysis.

When completing the AERSURFACE analysis, industry did make adjustments to the NLCD 1992 land use category information to be more consistent with the current conditions and surface types at the Sugar Land Airport. Figure 4 below shows the initial 1992 land use definitions alongside the revised land use definitions superimposed on a current aerial photograph of the meteorological station.

Figure 4: 1992 NLCD land use and updated land use for Sugar Land Airport

Figure 2-2: Sugar Land Airport – 1km 1992 NLCD Land Use

Figure 2-3: Sugar Land Airport – 1km Updated Land Use

Meteorological data from the above surface and upper air stations were used in generating AERMOD-ready files with the AERMET processor. The output meteorological data created by the AERMET processor is suitable for being applied with AERMOD input files for AERMOD modeling runs. Industry followed the methodology and settings presented in the most recent versions of meteorological preprocessing files of AERMOD, and is consistent with EPA guidance in the processing of the raw meteorological data into an AERMOD-ready format, and used AERSURFACE to best represent surface characteristics.

Hourly surface meteorological data records are read by AERMET, and include all the necessary elements for data processing. However, wind data taken at hourly intervals may not always

portray wind conditions for the entire hour, which can be variable in nature. Hourly wind data may also be overly prone to indicate calm conditions, which are not modeled by AERMOD. In order to better represent actual wind conditions at the meteorological tower, wind data of 1 minute duration was provided from the same instrument tower, but in a different formatted file to be processed by a separate preprocessor, AERMINUTE. These data were subsequently integrated into the AERMET processing to produce final hourly wind records of AERMOD-ready meteorological data that better estimate actual hourly average conditions and that are less prone to over-report calm wind conditions. This allows AERMOD to apply more hours of meteorology to modeled inputs, and therefore produce a more complete set of concentration estimates. As a guard against excessively high concentrations that could be produced by AERMOD in very light wind conditions, industry set a minimum threshold of 0.5 meters per second in processing meteorological data for use in AERMOD. This approach is consistent with a March 2013 EPA memo titled, "Use of ASOS meteorological data in AERMOD dispersion Modeling." In setting this threshold, no wind speeds lower than this value would be used for determining concentrations. This threshold was specifically applied to the 1-minute wind data.

Modeling Parameter: Geography and Terrain

The terrain in the area of analysis is best described as flat, with little to no elevation changes between the facility's location and the airport's location. To account for any terrain changes, the AERMAP terrain program within AERMOD was used to specify terrain elevations for all the receptors. The source of the elevation data incorporated into the model was the USGS National Elevation Database.

Modeling Parameter: Background Concentrations of SO_2

The Modeling TAD offers two mechanisms for characterizing background concentrations of SO_2 that are ultimately added to the modeled design values: 1) a "first tier" approach, based on monitored design values, or 2) a temporally varying approach, based on the 99th percentile monitored concentrations by hour of day and season or month. For the Fort Bend County, Texas area of analysis, industry chose to use the second tier seasonal variable diurnal profiles for the background concentrations from data collected at Italy, Texas, located about 320 km WNW of the W.A. Parish Station. Table 1 contains the seasonal, diurnal SO_2 concentrations for the Italy monitor. These background concentrations were incorporated into the final AERMOD results.

Table 1: Seasonal, diurnal 1-hour SO_2 concentrations ($\mu g/m^3$) for the Italy, Texas Monitor

Hour[1]	*Winter*	*Spring*	*Summer*	*Fall*
1	3.66	2.70	3.23	3.05
2	2.62	2.27	2.18	2.88
3	2.53	2.44	2.36	3.32
4	2.62	2.18	2.09	3.66
5	2.18	1.75	1.48	2.97
6	2.27	1.66	1.40	3.32
7	2.18	1.57	1.75	2.18
8	2.36	2.36	3.05	4.01
9	3.58	3.32	3.66	6.37
10	4.71	6.20	6.02	10.38
11	7.33	5.24	6.98	9.77
12	8.73	4.54	6.28	16.93
13	9.16	5.85	5.06	10.30
14	7.42	5.76	5.06	9.77
15	7.33	5.76	6.02	8.20
16	9.07	4.36	4.28	8.73
17	6.46	3.75	3.66	13.26
18	8.38	4.28	5.24	8.20
19	4.89	3.58	5.67	4.89
20	13.00	4.19	8.55	6.54
21	4.01	2.62	6.72	6.02
22	2.79	2.53	5.15	4.54
23	2.27	3.32	2.88	5.06
24	2.36	2.79	2.88	4.62

1. Hours in AERMOD are defined as hour-ending. i.e., Hour 1 is the period from midnight through 1 AM, etc.

Summary of Modeling Results

The AERMOD modeling parameters, as supplied by additional information from industry during the comment period for the Fort Bend County, Texas, area of analysis are summarized below in Table 2. With the exception of revisions to erroneous stack parameters, the modeling parameters in the most recent modeling from industry remain unchanged from the analysis evaluated in our intended designation. As documented in the TSD accompanying our intended designation, the modeling conducted by industry was determined to be consistent with current EPA modeling guidance, including the Modeling TAD. For more details reference our intended designation documents, available in the docket.

Table 2: AERMOD Modeling Parameters for the Fort Bend County, Texas Area

Fort Bend County, Texas Area of Analysis	
AERMOD Version	15181
Dispersion Characteristics	Rural
Modeled Sources	1
Modeled Stacks	14
Modeled Structures	353
Modeled Fence lines	Yes, W.A. Parish Station Fence line
Total receptors	6,909
Emissions Type	Actual
Emissions Years	2012-2014
Meteorology Years	2012-2014
Surface Meteorology Station	Sugar Land Regional Airport, TX
Upper Air Meteorology Station	Lake Charles, LA
Methodology for Calculating Background SO_2 Concentration	Seasonal diurnal values
Calculated Background SO_2 Concentration	See Table 1

The results presented below in Table 3 show the magnitude and geographic location of the highest predicted modeled concentration based on actual emissions.

Table 3: Maximum Predicted 99th Percentile 1-Hour SO_2 Concentration in the Fort Bend County, Texas Area of Analysis Based on Actual Emissions

Averaging Period	Data Period	Receptor Location		SO_2 Concentration ($\mu g/m^3$)	
		UTM/Latitude	UTM/Longitude	Modeled (including background)	NAAQS
99th Percentile 1-Hour Average	2012-2014	242505.31	3259955.75	184.184	196.5*

*Equivalent to the 2010 SO_2 NAAQS set at 75 ppb

Industry's latest modeling indicates that the highest predicted 3-year average 99th percentile 1-hour average concentration within the chosen modeling domain is 184.2 $\mu g/m^3$, or 70.3 ppb. This modeled concentration included the background concentration of SO_2, and is based on actual emissions from the facility.

Jurisdictional Boundaries:

Once the geographic area of analysis associated with the W.A. Parish Station, other nearby sources of SO_2, and background concentration is determined, existing jurisdictional boundaries are considered for the purpose of informing our final unclassifiable/attainment area, specifically with respect to clearly defined legal boundaries. The EPA has confirmed that aside from the W.A. Parish station, there are no other sources in Fort Bend County or within 20 km of its borders that according to the 2011 NEI, have reported SO_2 emissions of 100 tpy or greater. As a result, the EPA finds that it is unlikely for any sources in a neighboring county to cause or contribute to a violation of the NAAQS in Fort Bend County.

The EPA finds that our final unclassifiable/attainment area, consisting of Fort Bend County, Texas, is comprised of clearly defined legal boundaries, and we find these boundaries to be a suitably clear basis for defining our final unclassifiable/attainment area.

Conclusion

After careful evaluation of the State's recommendation, all timely comments and information received during the State and public comment period, and additional relevant information as discussed in this document, the EPA determines that the area around W.A. Parish Station is meeting the NAAQS, and is designating the area as unclassifiable/attainment for the 2010 SO_2 NAAQS. Specifically, the boundaries for unclassifiable/attainment area consist of the entirety of Fort Bend County, Texas as shown in Figure 1.

Since our intended designation, we have been able to complete our evaluation of the latest air dispersion modeling submitted by industry on January 25, 2016, which demonstrated attainment in the area of analysis. The EPA finds that this latest submittal is consistent with the Modeling TAD and applicable EPA guidance and has corrected the erroneous model inputs outlined in our intended designation for Fort Bend County, Texas.

At this time, our final designations for the State only apply to this area and the others contained in this final technical support document. Consistent with the court-ordered schedule, the EPA will evaluate and designate all remaining undesignated areas in Texas by either December 31, 2017, or December 31, 2020.