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

RESPONDENT EPA'S MOTION TO DISMISS OR TRANSFER

Pursuant to Federal Rule of Appellate Procedure 27, Respondents, the United States Environmental Protection Agency, et al. ("EPA"), move to dismiss the above-captioned petitions for review for improper venue. In the alternative, EPA moves the Court to transfer these petitions to the United States Court of Appeals for the District of Columbia Circuit ("D.C. Circuit"). Petitioners the State of Texas, et al. and Luminant Generation Company, et al., oppose this motion. Intervenor Sierra Club supports this motion.

These petitions for review involve air quality designations for sulfur dioxide (SO_2) promulgated by EPA under section 7407(d) of the Clean Air Act ("CAA"). EPA finalized its proposed second round of

designations in two parts ("Round 2 Designations"). First, EPA published a final action entitled "Air Quality Designations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard—Round 2," published at 81 Fed. Reg. 45,039 (July 12, 2016) ("Final Rule"). EPA subsequently published a supplement to the 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." 81 Fed. Reg. 89,870 (Dec. 13, 2016) ("Supplemental Rule"). Texas and Luminant filed petitions for review of the Supplemental Rule in this Court and in the D.C. Circuit.

Under section 7607(b)(1) of the CAA, petitions for review that challenge rules that are either "nationally applicable" or "based on a determination of nationwide scope or effect" may be filed only in the D.C. Circuit. As EPA explained in the two preambles, the Round 2 Designations are nationally applicable, and the EPA Administrator found that both parts of the Round 2 Designations are based upon a determination of nationwide scope and effect. 81 Fed. Reg. at 45,045/2-

3; 81 Fed. Reg. at 89,874/3-75. The D.C. Circuit, where three petitions for review of the Final Rule and three petitions for review of the Supplemental Rule have already been consolidated by that Court, is therefore the only proper forum for these additional petitions for review of the Round 2 Designations.[1] Accordingly, EPA respectfully requests that this Court dismiss these petitions, or in the alternative, transfer them to the D.C. Circuit. See, e.g., Texas v. EPA, No. 10-60961, 2011 WL 710598 at *5 (5th Cir. Feb. 24, 2011) (Order of this Court granting EPA's motion and transferring petitions to the D.C. Circuit).

BACKGROUND

I. Air Quality Designations Under the CAA

The CAA, 42 U.S.C. §§ 7401-7671q, establishes a joint state and federal program to address air pollution. Among other things, it directs EPA to establish national ambient air quality standards for certain pollutants that may reasonably be anticipated to endanger public health and welfare. Id. §§ 7408-09. A NAAQS specifies the maximum permissible concentration of a pollutant in the ambient air. Id. This

[1] See Masias, et al. v. EPA, No. 16-1314 (D.C. Cir) (consolidated with Nos. 16-1318, 16-1384, 16-1424, 17-1053 & 17-1055).

case involves the primary one-hour NAAQS promulgated in 2010 for sulfur dioxide, or SO_2. 40 C.F.R. § 50.17; see 75 Fed. Reg. 35,520 (June 22, 2010) ("2010 SO_2 NAAQS").

Once it promulgates a NAAQS, EPA must designate areas as "attainment," "nonattainment," or "unclassifiable" for that NAAQS. 42 U.S.C. § 7407(d)(1). "Nonattainment" areas either do not meet the NAAQS or contribute to nearby areas that do not meet the NAAQS; "attainment" areas meet the NAAQS and do not contribute to the failure of nearby areas to meet the NAAQS; and "unclassifiable" areas are those for which EPA lacks sufficient information to determine whether the NAAQS are met. Id. § 7407(d)(1)(A)(i)-(iii). EPA's regulations include methods for evaluating air quality status when issuing designations in all areas of the United States. These include methodologies that the NAAQS itself identifies (see, e.g., 40 C.F.R. §§ 50.17(b)-(c), referring to 40 C.F.R. pt. 50 apps. T, A-1, and 40 C.F.R. pt. 58), as well as guidelines that have long supported consistent analyses for regulatory purposes (see, e.g., 40 C.F.R. pt. 51, app. W).

Once EPA promulgates a NAAQS, states have three years to adopt state implementation plans ("SIPs") to implement, maintain, and

enforce that NAAQS – regardless of whether EPA has promulgated designations for all areas therein. 42 U.S.C. § 7410(a). For areas that EPA designates as nonattainment, however, states must submit additional SIPs that include measures to provide for attainment of the NAAQS "as expeditiously as practicable," which for SO_2 must be "no later than 5 years from the date [of the nonattainment designation]," including measures to reduce emissions of relevant pollutants. Id. §§ 7502(a)(2), 7502(c), 7514-14a; see also 40 C.F.R. part 51, subparts F and G.

II. EPA's Designations for the 2010 SO_2 NAAQS

Sulfur dioxide, or SO_2, is a highly reactive gas emitted primarily by fossil-fuel combustion plants and other industrial facilities. 78 Fed. Reg. 47,191, 47,193 (Aug. 5, 2013). Short-term exposure to SO_2 is linked "with an array of adverse respiratory effects," including increased asthma symptoms and respiratory illnesses, particularly in children and the elderly. 81 Fed. Reg. at 45,041/2; 81 Fed. Reg. at 89,872/1. In addition to addressing these public health threats, control measures for SO_2 emissions have a number of co-benefits, such as reducing exposures to other sulfur oxides and reducing the formation of fine sulfate

particles, which can cause or worsen respiratory diseases like emphysema and bronchitis and can aggravate heart disease. 81 Fed. Reg. at 45,041/2-3.

Having promulgated the 2010 SO_2 NAAQS, EPA began the process of designating areas of the country as either attainment, nonattainment, or unclassifiable in regard to that standard. As permitted by the Act, see 42 U.S.C. § 7407(d)(1)(B)(i), EPA extended its initial two-year designation deadline for an additional year because it had insufficient information to complete the process within two years. 81 Fed. Reg. at 45,041/3.

On August 5, 2013, EPA issued its first round of designations and area boundaries for the 2010 SO_2 NAAQS. 78 Fed. Reg. 47,191 (Aug. 5, 2013) ("Round 1 Designations"). Specifically, EPA identified 29 areas in 16 states throughout the country as nonattainment based on monitoring data from 2009-2011. Id. at 47,193.[2]

---

[2] EPA also explained that it was not yet prepared to issue designations for the remainder of the country due to lack of data, and would address all other areas "in separate future actions." Id. at 47,191. In a subsequent lawsuit, the United States District Court for the Northern District of California entered a consent decree setting a schedule for

Footnote continued…

EPA's Round 2 Designations take the next step in implementing the 2010 SO_2 NAAQS. On March 1, 2016, EPA announced its proposed "Round 2" designations for 66 areas in 24 states. See 81 Fed. Reg. 10,563. EPA subsequently finalized in the Final Rule the designations for 61 areas in 24 states as either nonattainment, unclassifiable/attainment, or unclassifiable under the 2010 SO_2 NAAQS, based on whether the areas: (1) do not meet the 2010 SO_2 NAAQS (or contribute to an area that does not meet it); (2) meet the standard; or (3) cannot be classified based on available information as meeting or not meeting the standard. 81 Fed. Reg. at 45,040/3-41/1.

In the Supplemental Rule, EPA finalized the designations for an additional four areas in Texas that had been included in the March 1, 2016, national proposal. 81 Fed. Reg. at 89,873/2, 89,875-76. Although designations for these four areas were finalized separately, they are based on the same proposed rule, core administrative record and legal interpretation of section 7407(d)'s requirements. Therefore those

---

issuing the remaining designations, with most to be issued by the end of 2017, some sooner, and the remainder by the end of 2020. See Sierra Club and Natural Resources Defense Council v. McCarthy, No. 3:13-cv-3953-SI, Doc. 163 (N.D. Cal., entered March 2, 2015).

designations are part-and-parcel of one overall designations rulemaking, which spans nearly half the States and nearly every judicial circuit. See 81 Fed. Reg. at 89,871/3, 89,873/1-2, 89,875.

The Round 2 Designations (i.e., the Final Rule and the Supplemental Rule together) are based on EPA's nationwide common analytical approach and technical analyses, including evaluation of monitoring data and air quality modeling, applied to conclusions regarding available evidence for each area. 81 Fed. Reg. at 45,041/1, 45,043/2-3; 81 Fed. Reg. at 89,871-73. These designations also involve application of a common five-factor test (the same used in the Round 1 Designations) to determine the boundaries for each air quality area. 81 Fed. Reg. at 45,043/2-3; 81 Fed. Reg. at 89,871/3, 89,873.

III. Judicial Review under the CAA

Section 7607(b)(1) specifies, among other things, the court in which parties may file petitions for judicial review challenging EPA's final actions under the CAA. In designing section 7607(b)(1)'s forum provisions, Congress contemplated three kinds of EPA final actions, specifically, those which are: 1) "nationally applicable;" 2) "locally or regionally applicable;" or 3) locally or regionally applicable but "based

on a determination of nationwide scope or effect." 42 U.S.C. § 7607(b)(1). Petitions for review of the second type of final action "may be filed only in the United States Court of Appeals for the appropriate circuit," id. (emphasis added), which is typically viewed as the regional circuit in which the state or entity regulated by EPA's final action resides. Petitions for review of rules falling into the first or third categories, however, "may be filed only" in the D.C. Circuit. Id. (emphasis added).

Here, as EPA explained in the preambles, the Round 2 Designations, including both the Final Rule and the Supplemental Rule, are "nationally applicable" within the meaning of section 7607(b)(1) because "at the core" of both "is the EPA's interpretation of the definitions of nonattainment, attainment and unclassifiable under section [7407](d)(1) of the CAA, and its application of that interpretation to areas across the country." 81 Fed. Reg. at 45,045/2-3; 81 Fed. Reg. at 89,875/1-2.

For the same reasons, the Administrator also made alternative findings that the Final Rule and the Supplemental Rule are based on a determination "of nationwide scope and effect for the purposes of section

[7607](b)(1)." 81 Fed. Reg. at 45,045/3; 81 Fed. Reg. at 89,875/2-3. In support of this finding, EPA cited the legislative history of section 7607(b)(1), wherein 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." 81 Fed. Reg. at 89,875/2-3 (citing H.R. Rep. No. 95-294 at 323, 324, reprinted in 1977 U.S.C.C.A.N. 1077, 1402-03). EPA accordingly determined that a "nationwide scope or effect" finding was appropriate because the determinations of the meaning of nonattainment, attainment and unclassifiable, among other key statutory provisions, were uniformly and consistently applied to all 65 areas in 24 states—in nine judicial circuits—at issue in the Round 2 Designations. 81 Fed. Reg. at 45,045; 81 Fed. Reg. at 89,875. EPA therefore explained that pursuant to the Act, any petitions challenging the Final Rule and the Supplemental Rule must be filed in the D.C. Circuit, both because each is "nationally applicable," and, alternatively, because the Administrator had found that each is based on a determination of "nationwide scope or effect," and had published that finding. Id.

ARGUMENT

For the reasons discussed below, these petitions for review may only be entertained in the D.C. Circuit.

I. The Final Rule and Supplemental Rule Are "Nationally Applicable."

The Round 2 Designations (i.e., the Final Rule and the Supplemental Rule) derive from the Act's command to designate the attainment status of all areas across the country for the 2010 SO_2 NAAQS. See 42 U.S.C. § 7407(d). The two final actions are "nationally applicable" as collectively they set forth the second round of air quality designations for the 2010 SO_2 NAAQS for multiple areas all across the country. These designations are based on EPA's uniform interpretation and application in both final actions of the definitions of "nonattainment," "attainment" and "unclassifiable" under section 7407(d)(1) of the CAA for the 2010 SO_2 NAAQS. 81 Fed. Reg. at 45,040/3, 45,041/3-42/1; 81 Fed. Reg. at 89,872/1-2. The Final Rule and Supplemental Rule are nationally applicable because they implement EPA's interpretation of statutory terms nationwide and apply a uniform analytical standard to states across the country in issuing designations

under the 2010 SO_2 NAAQS. 81 Fed. Reg. 45,041-44; 81 Fed. Reg. at 89,871-73.

Further, at both the proposal and final action stages for the Round 2 Designations, EPA addressed general issues of law and policy that arose simultaneously among the analyses included in them for numerous individual areas from a national perspective, including the four Texas areas designated in the Supplemental Rule. See, e.g., EPA-HQ-OAR-2014-0464-0144, EPA Texas Technical Support Document ("TSD") for Intended Designations at 4-6 (App. 62-64); EPA-HQ-OAR-2014-0464-0389, EPA Response to Comments at 13-14 (App. 46-47) (discussing designation categories) and 14-16 (App. 48-49) (discussing the use of monitoring and modeling data); EPA-HQ-OAR-2014-0464-0438, EPA Supplemental Response to Comments at 4, 11-15 (App. 4, 5-9) (reiterating general responses).

The Final Rule and Supplemental Rule set forth a number of significant, nationally-applicable foundational determinations, including: 1) EPA's interpretations of: the definitions of, inter alia, "nonattainment," "unclassifiable," "attainment," "necessary" and "area" in the context of the 2010 SO_2 NAAQS; 2) the factors used to determine

if an area is not attaining the NAAQS; 3) the five-factor analysis to determine the boundaries for each air quality area under the NAAQS; 4) the appropriate basis for characterizing the air quality of an area; and 5) the methodology for appropriately characterizing SO_2 air quality through monitoring or modeling. 81 Fed. Reg. at 45,042-44; 81 Fed. Reg. at 89,871-73. Although EPA had to reach individual conclusions regarding each area based on facts specific to that area (such as local air quality data), these individual conclusions were based on the application of consistent interpretations and a common analytical approach to the analysis under the 2010 SO_2 NAAQS for each area. See 81 Fed. Reg. at 45,042; 89,871/3, 89,871/3-73.

Moreover, as explained above, EPA proposed all of the Round 2 Designations at the same time, using that common, national analytical approach and applying those national interpretations. See 81 Fed. Reg. 10,563. The Final Rule and Supplemental Rule finalize EPA's proposal and are based on one administrative record.[3] Separating the Final Rule

---

[3] See Docket ID No. EPA-HQ-OAR-2014-0464, available at www.regulations.gov. The Supplemental Rule adds the final technical

Footnote continued…

and Supplemental Rule for judicial review among different circuits with each court addressing the national legal and policy issues raised by the Round 2 Designations would be contrary to the Act's command to centralize review of national issues in the D.C. Circuit. This is particularly the case here, where EPA anticipates that the types of issues Texas and Luminant will raise will be similar to (if not the same as) issues raised in the consolidated D.C. Circuit cases.

Every nationally-applicable rulemaking has local effects, and the Round 2 Designations are no different.[4] Thus, the fact that the designations necessarily affect the States and localities containing the designated areas does not alter the conclusion that the Final Rule and Supplemental Rule are nationally applicable. See ATK Launch Systems, Inc. v. EPA, 651 F.3d 1194, 1199 (10th Cir. 2011). While the designations necessarily affect the States and localities containing the

---

support documents and responses to certain additional comments. 81 Fed. Reg. at 89,875/1.

[4] For example, the Round 2 Designations promulgate consistent determinations of whether each local air quality area meets the NAAQS, similar to how a new generally-applicable national technology standard affects local areas containing emission sources subject to that standard.

designated areas, as the Tenth Circuit has previously held, the "nature of the regulation, not the challenge, controls." ATK Launch Systems, 651 F.3d at 1199. Here, it is the national applicability of the rule that controls, not the geographic location of any one designation out of the 65 addressed by the Final Rule and the Supplemental Rule. Cf. Natural Res. Def. Council, Inc. v. Thomas, 838 F.2d 1224, 1249 (D.C. Cir. 1988) (rejecting argument that de facto scope of regulation is controlling for purposes of determining venue under section 7607(b)(1)).

II. Precedent Supports the Conclusion That the Final Rule and Supplemental Rule Are "Nationally Applicable."

The Tenth Circuit's thorough decision in ATK Launch Systems, which transferred consolidated challenges to a different NAAQS designation rule (for the 2009 particulate matter NAAQS) to the D.C. Circuit, is instructive. ATK Launch Sys., 651 F.3d at 1200. The court explained, "[t]he language of the Clean Air Act provision makes clear that this court must analyze whether the regulation itself is nationally applicable, not whether the effects complained of or the petitioner's challenge to that regulation is nationally applicable." Id. at 1197. Indeed, if a petitioner could not show a local effect on itself when challenging a nationwide rule, it would fail to demonstrate the injury or

interest necessary to establish constitutional standing to challenge the rule in any circuit. Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-61 (1992). Thus, the fact that a rule's effects may be felt locally cannot by itself suffice to make a rule "locally or regionally applicable" and not "nationally applicable."

Because the designations rule challenged in ATK addressed "thirty-one areas across the country . . . which include[d] portions of states with no local or regional connection to one another," and EPA applied a uniform process and standard in making the designations, the court concluded in ATK that the rule was nationally applicable. Id. Here, the Round 2 Designations are the result of uniform standards applied to 65 areas in 24 states across the country from Hawaii to New York, and so the same conclusion follows.

EPA applied the same national definitions and analyses to the four areas in Texas designated in the Supplemental Rule as it did to areas in 23 other states (and other areas in Texas) in the Final Rule—and as it did in the single proposed rule covering all 65 areas. This further demonstrates that the Supplemental Rule is "nationally applicable," and also supports EPA's alternative "nationwide scope or

effect" finding (see infra 20-26). For each of the areas covered by the Round 2 Designations, EPA methodically applied a consistent set of defined terms in the context of the 2010 SO_2 NAAQS, and assessed the relevant modeling analyses and other available information against national technical guidance and measurement protocols for evaluating SO_2 air quality. 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 defined terms); Texas Supplement TSD at 11-14 (App. 20-23) & EPA-HQ-OAR-2014-0464-0394, North Dakota Final TSD at 8-10 (App. 31-33) (discussing model selection and modeling components). Consequently, the Tenth Circuit's rejection of the argument that "EPA's case-by-case consideration of areas and boundaries transforms a national standard to a regional or local rule," 651 F.3d at 1198, applies with equal force here.

Dismissal or transfer here would also be consistent with the practice of the D.C. Circuit, which regularly entertains petitions for review of CAA air quality designations. See, e.g., Treasure State Resource Indus. Ass'n v. EPA, 805 F.3d 300 (D.C. Cir. 2015) (denying on

the merits petitions for review of the Round 1 Designations);[5] Miss. Comm'n on Envtl. Quality v. EPA, 790 F.3d 138 (D.C. Cir. 2015) (16 groups of petitioners challenged designations for the 2008 ozone NAAQS); Catawba Cnty., N.C. v. EPA, 571 F.3d 20 (D.C. Cir. 2009) (15 different petitioners challenged designations for the 1997 fine particulate matter NAAQS involving areas across the country); Pa. Dep't of Envtl. Prot. v. EPA, 429 F.3d 1125 (D.C. Cir. 2005) (denying petitions for review by Pennsylvania and Delaware of EPA's designations rule for the 1997 8-hour ozone NAAQS). Moreover, the D.C. Circuit has already consolidated several petitions for review

---

[5] EPA successfully moved to transfer one petition for review of the Round 1 Designations from the Seventh Circuit to the D.C. Circuit, where it was consolidated with all other petitions for review of that action. AmerenEnergy Res. Gen. Co. v. EPA, No. 13-2959 (7th Cir. Dec. 18, 2013) (Order granting EPA's motion to dismiss or transfer) (App. 73). Whereas the Round 1 Designations involved 29 areas in 16 states, EPA's Round 2 Designations apply to 65 areas in 24 states. One petition for review of EPA's Round 2 Designations has been filed in the Seventh Circuit. EPA moved to dismiss or transfer it to the D.C. Circuit, and that court ordered supplemental briefing on, inter alia, whether to overrule Madison Gas & Elec. Co. v. EPA, 4 F.3d 529 (7th Cir. 1993). See S. Illinois Power Coop. v. EPA, No. 16-3398 (7th Cir.). That motion is still pending.

(including Texas' and Luminant's) of the Final Rule and Supplemental Rule. See supra note 1.

Indeed, the D.C. Circuit has also previously ruled on consolidated petitions for review of multiple final Federal Register notices promulgating air quality designations. In 2012, EPA promulgated air quality designations for the 2008 ozone NAAQS in multiple final notices. 77 Fed. Reg. 30,088 (May 21, 2012); 77 Fed. Reg. 34,221 (June 11, 2012). The first action promulgated designations for the entire country save 12 counties in Illinois, Indiana and Wisconsin, which the latter action subsequently promulgated. 77 Fed. Reg. at 34,222.

Just as is the case here, EPA explained that the second action was "nationally applicable" because it, "along with [the first, broader action], establishes designations for areas across the U.S. for the 2008 ozone NAAQS." Id. at 34,227/2. Further, and almost identical to the current rules at issue, EPA stated: "At the core of this rulemaking is the EPA's interpretation of the definition of nonattainment under section [7607](d)(1) of the CAA, and its application of that interpretation to areas across the country." Id. Petitions for review of both final actions were filed and consolidated in the D.C. Circuit, and ruled upon on the

merits by the D.C. Circuit in a single decision. See Miss. Comm'n on Envtl. Quality v. EPA, 790 F.3d 138 (D.C. Cir. 2015). Judicial review of the Final Rule and the Supplemental Rule should follow the same path.

A contrary approach – allowing challenges to be brought in multiple judicial circuits, in addition to or instead of the D.C. Circuit – could lead to a series of inconsistent rulings regarding the proper construction of the Act as it applies to the same EPA final action, which would be inconsistent with Congress's intent: to ensure uniformity by providing that rules of national applicability are to be heard by a single circuit at one time. Texas v. EPA, 2011 WL 710598 at *4 (discussing legislative history); see also NRDC v. EPA, 512 F.2d at 1357 (vesting of exclusive review in the D.C. Circuit is designed "to ensure uniformity in decisions concerning issues of more than purely local or regional impact").

III. The D.C. Circuit Is the Only Proper Venue Because the Final Rule and Supplemental Rule Are Also Based on a Determination of Nationwide Scope or Effect.

Because the Final Rule and Supplemental Rule are "nationally applicable," the Court should grant EPA's motion to dismiss or transfer on that basis alone. However, even if the Court were to conclude that

the Final Rule and Supplemental Rule are "locally or regionally applicable," review may nonetheless be had only in the D.C. Circuit. Far from giving petitioners any choice of forum, Congress expressly delegated to the Administrator the authority to make a "nationwide scope or effect" finding where the Administrator concludes that a local or regional action is based on principles that should apply uniformly nationwide, in furtherance of Congress' intent to centralize review of national issues in the D.C. Circuit. See Texas v. EPA, 829 F.3d 405, 419-20 (5th Cir. 2016) (CAA "gives the Administrator the discretion to move venue to the D.C. Circuit by publishing a finding declaring the Administrator's belief that the action is based on a determination of nationwide scope or effect."). EPA reasonably found, for many of the same reasons discussed above, that the Round 2 Designations, including the Final Rule and Supplemental Rule, are based on a determination of nationwide scope or effect. 81 Fed. Reg. at 45,045; 81 Fed. Reg. at 89,875.

Section 7607(b)(1) states that petitions for review of a locally or regionally applicable final action "may be filed only in the [D.C. Circuit] if [Clause 1:] such action is based on a determination of nationwide

scope or effect and [Clause 2:] if in taking such action the Administrator finds and publishes that such action is based on such a determination." The first clause plainly requires that EPA's final action be based on a determination of nationwide scope or effect; here, that is EPA's interpretation of "nonattainment," "unclassifiable" and "attainment" under section 7607(d)(1) and the consistent application of those interpretations across the country in designating areas under the 2010 SO_2 NAAQS. 81 Fed. Reg. at 45,045; 81 Fed. Reg. at 89,875. The second clause requires that the Administrator find and publish "that such action is based on such a determination." 42 U.S.C. § 7607(b)(1). The publication requirement, expressly met here (81 Fed. Reg. at 45,045/3; 81 Fed. Reg. at 89,875/2-3), ensures that petitioners will know whether to file a petition for review in the appropriate regional circuit or in the D.C. Circuit by the mandatory 60-day deadline.

EPA acknowledges that this Court recently held (albeit in a different CAA context) that section 7607(b)(1) requires a de novo judicial determination of nationwide scope or effect. Texas v. EPA, 829

F.3d at 420-21.[6] However, regardless of the degree of deference owed to EPA's "nationwide scope or effect" finding, the finding at issue in this case clearly is reasonable and should be upheld. As discussed above, the determinations identified in a single proposed rule and finalized in the Final Rule and Supplemental Rule are part of the coordinated, nationwide implementation and promulgation of a consistent set of designations under a national air quality standard. 81 Fed. Reg. at 45,041-44, 45,045; 81 Fed. Reg. at 89,871-74, 89,875.

Indeed, EPA explained "at the core of the [Final Rule] and [the Supplemental Rule] is the EPA's interpretation of the definitions of nonattainment, attainment and unclassifiable under section [7407](d)(1) of the CAA, and its application of that interpretation to areas across the country." 81 Fed. Reg. at 89,875/2. As this Court

---

[6] The Texas v. EPA decision involved EPA actions on state implementation plan submissions, which by their very nature are usually locally or regionally applicable unless found by the Administrator to be based on a determination of nationwide scope or effect. See 42 U.S.C. § 7607(b)(1) (specifically listing locally or regionally applicable EPA actions on SIPs among the actions that should be filed in the "appropriate circuit"). The EPA actions here, by contrast, do not involve individual state SIPs, but rather EPA's nationwide implementation of its statutory designations responsibilities for two dozen states in multiple judicial circuits.

recently explained: "Because the statute speaks of the determinations the action 'is based on,' the relevant determinations are those that lie at the core of the agency action." Texas v. EPA, 829 F.3d at 419. EPA's uniform application of nationwide interpretations of key statutory provisions under the 2010 SO_2 NAAQS is "at the core" of the Final Rule and the Supplemental Rule, and thus under this Court's precedent, EPA's findings should be respected.

Furthermore, it bears emphasis that the Round 2 Designations involve designations for 65 air quality areas located in 24 states. See 81 Fed. Reg. at 45,040/3, 45,045/3; 81 Fed. Reg. at 89,871/2, 89,873/2, 89,876-77.[7] The Final Rule and Supplemental Rule extend across nine judicial circuits nationwide, and section 7607(b)(1)'s legislative history supports a finding of nationwide scope or effect where an EPA action "has scope or effect beyond a single, judicial circuit." H.R. Rep. No. 95-294 at 323-24, reprinted in 1977 U.S.C.C.A.N. 1077, 1402-03); see also 81 Fed. Reg. at 45,045; 81 Fed. Reg. at 89,875. The determinations at the core of the Final Rule and Supplemental Rule plainly have

[7] See also 81 Fed. Reg. at 45,040/3-41/1, 45,046-55 (state-by-state designations).

nationwide scope or effect given the geographic breadth of the uniform application of EPA's statutory interpretations. See Texas v. EPA, 829 F.3d at 422 (considering "the scope or effect of the relevant determinations").

Moreover, that the Supplemental Rule promulgates air quality designations only in Texas is not dispositive that this Court is the proper venue. For example, EPA's "Error Correction Rule" was a "locally" applicable rule that acted only upon Texas' SIP. 76 Fed. Reg. 25,178 (May 3, 2011). EPA found and published that the Error Correction Rule was "based on a determination of nationwide scope and effect" because a key determination affected 13 states and the rule was among a complex of rules implementing the nationwide greenhouse gas regulatory program. Id. at 25,208-09. Although the Error Correction Rule applied to only one SIP in one judicial circuit (this Court), "Texas properly challenged the [Error Correction Rule] in the D.C. Circuit." Texas v. EPA, No. 10-60961 at *3.

For all the foregoing reasons, even if the Court were to consider the Final Rule and Supplemental Rule to be locally or regionally applicable instead of nationally applicable in nature, it nonetheless

should transfer these petitions to the D.C. Circuit based on EPA's alternative findings that its two actions are "based on a determination of nationwide scope or effect." This outcome is not only consistent with the plain language of section 7607(b)(1), it also promotes the considerations of judicial economy underlying that provision. As noted above, six petitions for review of the Final Rule and Supplemental Rule, covering multiple different areas, have been consolidated in the D.C. Circuit. Giving effect to the Administrator's findings that the Final Rule and Supplemental Rule are based on a determination of nationwide scope or effect will ensure that all challenges to the Round 2 Designations are heard by one court at the same time, thereby furthering judicial economy and eliminating the risk of inconsistent judgments. Cf. New Jersey v. EPA, 626 F.2d 1038 (D.C. Cir. 1980) (discussing the inconsistent judgments rendered when four circuit courts reviewed EPA's 1978 designations for the ozone NAAQS).

CONCLUSION

Because the Final Rule and Supplemental Rule uniformly apply a common set of statutory interpretations and analytical factors under the 2010 SO_2 NAAQS to air quality areas across the United States, in

nine judicial circuits and in 24 different states, they are "nationally applicable" and review is proper only in the D.C. Circuit. Alternatively, if the Court concludes that the Final Rule and Supplemental Rule are not "nationally applicable," the Court should nevertheless affirm EPA's findings that the rules are based on determinations of "nationwide scope or effect." EPA therefore respectfully requests that the Court dismiss the petitions for review (which will cause no harm to the petitioners, who are all parties to petitions for review in the D.C. Circuit), or transfer the petitions to the D.C. Circuit.

Respectfully submitted,

BRUCE S. GELBER
Deputy Assistant Attorney General

Dated: March 24, 2017

/s/ Dustin J. Maghamfar
DUSTIN J. MAGHAMFAR
U.S. Department of Justice
Environment & Nat'l Res. Div.
Environmental Defense Section
P.O. Box 7611
Washington, D.C. 20044
Telephone: 202-514-1806
dustin.maghamfar@usdoj.gov

Counsel for Respondent

CERTIFICATE OF SERVICE

I hereby certify that the foregoing Motion to Dismiss or Transfer 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: March 24, 2017

/s/ Dustin J. Maghamfar
DUSTIN J. MAGHAMFAR

Counsel for Respondent EPA

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMITS

I hereby certify that the foregoing Motion is proportionately spaced, has a typeface of 14 points, and contains 5,123 words, exclusive of those parts exempted by Federal Rule of Appellate Procedure 32(f). I have relied on Microsoft Word's calculation feature.

Date: March 24, 2017

/s/ Dustin J. Maghamfar
DUSTIN J. MAGHAMFAR

Counsel for Respondent EPA

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

EPA's Motion to Dismiss or Transfer: Appendix Table of Contents

Index #	Title	Page #
0438	"Responses to Significant Comments on the Designation Recommendations for the 2010 [SO_2 NAAQS] – Supplement for Four Areas in Texas Not Addressed in June 30, 2016, Version" (excerpts)	1
0434	Final Technical Support Document – Supplement for Four Areas in Texas (excerpt)	10
0394	Final North Dakota Final Technical Support Document (excerpt)	24
0389	"Responses to Significant Comments on the Designation Recommendations for the 2010 [SO_2 NAAQS]" (excerpt)	34
0356	Final New York Final Technical Support Document	50
0144	Texas Technical Support Document for the EPA's Intended Designations (excerpt)	59
N/A	Order, AmerenEnergy Res. Generating Co. v. EPA, No. 13-2959 (7th Cir. Dec. 18, 2013)	73

Responses to Significant Comments on 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

Docket Number EPA–HQ–OAR–2014–0464
U.S. Environmental Protection Agency

November 29, 2016

Contents

I. Introduction 3
II. Background 3
III. General Comments 4
A. Modeling 4
1. AERMOD LOWWIND3 Option 4
2. Modeling to determine attainment status 9
3. AERMOD FLAGPOLE option 10
B. Designation Categories 11
C. Monitoring 12
D. Consent Decree 14
E. Consider all information in the record 15
G. Other Comments 16
IV. Texas 17
General Comments 17
A. Freestone-Anderson County 46
B. Gregg County 46
C. Milam County 48
D. Panola County 48
E. Rusk County 48
F. Titus County 48

I. Introduction

This supplemental document, together with the preamble to the supplemental final designations action, and the supplemental Technical Support Document (TSD) for the designations for the subject areas, presents the responses of the U.S. Environmental Protection Agency (EPA) to the significant comments we received on our responses to the state designation recommendations regarding four areas in Texas for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard (NAAQS). The public comment period for the EPA's intended designations ended on March 31, 2016. The responses presented in this document are intended to either augment the responses to comments that appear in the preamble to the supplemental final action and the TSDs or to address comments not discussed in those documents. In this document "APC" refers to anonymous public comments.

II. Background

On June 2, 2010, the EPA Administrator signed a notice establishing a new primary 1-hour SO_2 standard at a level of 75 parts per billion (ppb) to protect against health effects associated with SO_2 exposure, including a range of serious respiratory illnesses. The EPA retained the secondary 3-hour SO_2 standard on March 20, 2012, to protect against welfare effects, including impacts on sensitive vegetation and forested ecosystems.

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

The EPA completed an initial round of SO_2 designations for certain areas of the country on July 25, 2013, designating 29 areas in 16 states as nonattainment. Pursuant to a March 2, 2015, court-ordered schedule, the EPA must complete SO_2 designations for the remaining areas of the country by three specific deadlines: July 2, 2016, December 31, 2017, and December 31, 2020. The court order requires the second round of designations that were due July 2, 2016, to address 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/mmBTU. The EPA issued a notice announcing its intended designations for all areas meeting these criteria on March 1, 2016 (81 FR 10564), which included the four Texas areas addressed in this document. However, before meeting the July 2, 2016, deadline for areas meeting these criteria, the EPA and plaintiffs who are parties to the consent decree that gave rise to the court order agreed to extensions for a limited number of the subject areas, including these four Texas areas. The deadline for issuing designations for these four Texas areas is now November 29, 2016. Areas associated with the other sources required to be designated in the second round of designations were designated on

June 30, 2016 (81 FR 45039; July 12, 2016), except for the Muskogee, Oklahoma area which has been further extended and is therefore not addressed in this document.

III. General Comments

A. Modeling

1. AERMOD LOWWIND3 Option

Comment: Numerous commenters on the EPA's March 1, 2016, notice announcing the agency's intended designations raised issues and concerns regarding the use of modeling in designations, including the use of the Lowwind3 and Adjusted U* beta options in AERMOD, relying on modeling to determine attainment status, and the use of flagpole receptors, Other commenters addressed the names of EPA's designations categories, the role of monitoring in designations, the relationship of this round of designations to the court order and to EPA's Data Requirements Rule, the need to consider all available information in the administrative record, and other general topics. The EPA summarized and responded to these comments in the June 30, 2016, version of the Response to Comments Document, and stands by those responses, which are in the docket for this supplemental action. For general comments that were addressed by commenters who responded to the EPA's intended designations of the four areas in Texas addressed in this supplemental action, we are repeating the summaries and responses, with some changes to reflect the fact that we are now designating those areas. Some commenters (0296-FirstEnergy, 0299-OH Utilities Group, 0309-DTE Energy, 0310- NAAQS Implementation Coalition, 0314-OH Valley Electric, 0329-UARG, 0328-Luminant) suggested the EPA should allow states to use the LOWWIND3 option in conjunction with ADJ_ U* to provide better performance of the model under low wind speed conditions. Two commenters (0309-DTE Energy, 0329-UARG) stated that the EPA's refusal to accept modeling demonstrations that utilize these more sophisticated options may lead to areas being designated nonattainment for this NAAQS where actual air quality meets this NAAQS due to the default model's over-prediction tendency.

EPA's Response:

The EPA proposed revisions to the *Guideline on Air Quality Models* on July 29, 2015, which include proposed updates to the AERMOD modeling system, the air quality dispersion model recommended for use in the SO_2 NAAQS designation process. Specifically, EPA proposed incorporating two Beta options:

An option in AERMET to adjust the surface friction velocity (u*) to address issues with AERMOD over prediction under stable, low wind speed conditions.

A low wind option, LOWWIND3, to address issues with model over predictions under low wind conditions. This option increases the minimum value of the lateral turbulence intensity (sigma-v) from 0.2 to 0.3 and adjusts the dispersion coefficient to account for the effects of horizontal plume meander on the plume centerline concentrations. It also eliminates upwind dispersion, which is incongruous with a straight-line, steady-state plume dispersion model such as AERMOD.

EPA's Response:

EPA disagrees with the statement that the flagpole receptors are part of the regulatory default AERMOD configuration. While not a Beta option, the flagpole receptors must be specified and therefore are not part of the default options. EPA has stated in Section 4.2 of the SO_2 NAAQS Designations Modeling Technical Assistance Document (TAD) that the use of flagpole receptors is not necessary. The TAD also states that Appendix W does not specify receptors be placed at levels other than ground level for comparison to the NAAQS. The use of flagpole receptors in specific cases of modeling is addressed in the Technical Support Document (TSD) for those areas, and/or in responses to comments on the EPA's intended designations for those areas.

B. Designation Categories

Comment: Two commenters (0301-IN Municipal Power, 0302-Duke Energy) supported an "attainment" rather than "attainment/unclassifiable" designation and stated that section 107 of the Clean Air Act does not appear to provide for the "attainment/unclassifiable" designation category. Also see section IX.A. Gibson County in the June 30, 2016, RTC.

One commenter (0329-UARG) stated the CAA does not provide for an unclassifiable/attainment designation and it does not authorize EPA to add to additional designations to those specified in the Act. Commenter stated that, where EPA finds that an area attains the NAAQS, the Agency has no basis for designating it anything other than attainment. Commenter stated that making an attainment designation is important because it conveys to those in the area or who may be considering moving to the area that air quality there meets health-based standards. Commenter stated that a designation of unclassifiable/attainment does not convey that same message and should not be used.

EPA's Response: In the March 20, 2015, guidance memo (Steve Page, Director EPA-OAQPS to Regional Air Directors, Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard) and the August 21, 2015, Data Requirements Rule final rule Federal Register notice the EPA stated that, while states have and may continue to submit designations recommendations identifying areas as ''attainment,'' the EPA expects to continue its traditional approach, where appropriate, of using a designation category of ''unclassifiable/attainment'' for areas that the EPA determines meet the 2010 SO_2 NAAQS. In this action, the EPA is using the designation category of "unclassifiable/attainment" for areas that are meeting the 2010 SO_2 NAAQS, and is using the category ''unclassifiable'' for areas where the EPA cannot determine based on available information whether the area is meeting or not meeting the NAAQS or where the EPA cannot determine whether the area contributes to a violation in a nearby area. The EPA is not establishing an additional designations category with this long-standing approach. Moreover, none of the four areas designated in this supplemental action are being designated "unclassifiable/attainment". The EPA also disagrees that longstanding use of the unclassifiable/attainment designation conveys the negative message claimed by the commenter, as the designation is premised on an EPA finding that the area is meeting the NAAQS. In any event, the EPA notes that there is no difference in terms of

resulting regulatory burden between an unclassifiable, unclassifiable/attainment, or attainment designation, so the use of the unclassifiable/attainment term imposes no injury on any party.

C. Monitoring

Comment: One commenter (0328-Luminant) asserted the EPA's proposal is unlawful and should not be finalized, in part, because EPA has consistently supported monitoring over modeling for NAAQS designation purposes and its new approach here is inconsistent with the statute, regulations, and EPA's prior practice. Commenter claims the EPA should utilize monitoring data, not modeling data if it is going to overturn the State of Texas' recommended designations in favor of its own designations. Commenter supported the TCEQ's (0294-TCEQ) position that monitoring data is necessary to accurately characterize actual air quality for attainment and nonattainment designations. Commenter asserted the EPA has been clear that monitoring data is preferred for NAAQS designations, and EPA's offer for states to use modeling for the SO_2 NAAQS was simply intended to provide states with another option. Commenter claimed that modeling was intended to provide an opportunity for states to avoid the cost and resources associated with siting, installing, and maintaining monitors where the state preferred to rely on modeling. Commenter alleges that the EPA's new approach here to *require* modeling and rely solely on that data for designations is inconsistent with the statute and EPA's prior practice.

One commenter (TX Response) asserted that when modeling and monitoring data conflict, courts have acknowledged that actual air monitoring data is superior to modeling data so long as the monitor is sufficient to accurately represent the area in question. *E.g., Republic Steel Corp. v. Castle,* 621 F.3d 797, 805 (6th Cir.1980); *PPG Industries, Inc. v. Castle,* 630 F.3d 462, 467-68 (6th Cir. 1980).

One commenter (TX Response) stated that a designation of nonattainment has serious consequences to industry, the economy of an area, its citizens, and the state. Commenter claimed that nonattainment designations should only be made based on data from 40 CFR Part 58 compliant (regulatory) monitoring showing a violation of the standard. Commenter stated that using modeling to determine a nonattainment designation could result in major capital expenditures for industry to address an issue that may not be an actual problem. Commenter stated that air modeling analyses are a useful tool in determining the impact of a new or modified facility for permitting purposes but not for predicting future design values to demonstrate attainment of NAAQS. Commenter asserted that, because of the magnitude of the potential impact areas may face due to a nonattainment designation, such a determination should be based only on real world, monitored data, and not predicted values subject to the limitations and flaws of a model.

EPA's Response: The June 30, 2016, version of the Response to Comments document noted that EPA was not at that time taking final action on the Texas areas for which the agency had issued intended nonattainment designations on March 1, 2016 and also the Milam County (Sandow facility), but also provided general responses to the issues raised by commenters who had objected to those intended designations. The EPA is now taking final action in this supplemental action to designate the areas in Texas that had been proposed as nonattainment designations.

The EPA maintains our previous position for the reasons delineated in the preamble to the final rule of the 2010 SO_2 NAAQS rulemaking, the February 2013 Strategy Paper, the proposed and final SO_2 Data Requirements Rule, and in the June 30, 2016, version of the Response to Comments document for why both air quality modeling and ambient monitoring are appropriate tools for characterizing ambient air quality for purposes of informing decisions to implement the SO_2 NAAQS, including designation determinations. The EPA's reliance on modeling to assess SO_2 air quality status, even in the face of conflicting monitoring, where appropriate, has been judicially affirmed. See, e.g., *Montana Sulphur & Chemical Company v. EPA*, 666 F.3d 1174, 1185 (9th Cir. 2012). Moreover, it has long been the EPA's practice to rely upon appropriate modeling when issuing designations under SO_2 NAAQS. See, e.g., 43 FR 8962 (March 3, 1978), 43 FR 40416 (September 11, 1978), 43 FR 40502 (September 12, 1978). The commenters are therefore incorrect to assert that the EPA's use of modeling to support determinations under the 2010 SO_2 NAAQS reflects a change from prior SO_2 practice. EPA has also explained the importance of using modeling information for source-oriented pollutants such as SO_2 in cases where existing monitors do not adequately characterize peak ambient concentrations. See, e.g., Memorandum from Sheldon Myers, Director, EPA Office of Air Quality Planning and Standards, to Regional Office Air Division Directors, "Section 107 Designation Policy Summary," April 21, 1983. All designation determinations made by the EPA in this final action are based on the EPA's complete and thorough review and analysis of all available information, as described in the final technical support document in this docket. Although it is true that the use of modeling can often be more economically efficient than installing and operating monitors, as the commenter observes, it is not true that the EPA's approach to designations under the SO_2 NAAQS represents an outright requirement to model, as the commenter alleges. Instead, where monitors have been shown to be representative of maximum ambient air concentrations, the EPA fully considers the information they provide and may base SO_2 NAAQS designations on such data. But not all monitors are so correctly sited, as the EPA has consistently observed in establishing and implementing this NAAQS. Modeling has proved to be an accurate and reliable tool for remedying the occasional weakness of SO_2 monitoring, and obviously in some cases is the only tool available where there is no SO_2 monitor in place to assess air quality. It is not the use of modeling as a measurement tool, therefore, that may result in adverse economic impacts to areas that are shown to be violating the NAAQS and that are designated nonattainment, as the commenter alleges; rather, it is the fact that the area is shown to be violating the NAAQS based on persuasive available information (whether resulting from monitoring or modeling) and under the CAA must be designated as nonattainment.

Comment: One commenter (0329-UARG) suggested that an area conducting monitoring consistent with EPA Guidance should be designated unclassifiable and allowed to complete three years of monitoring as long as monitored air quality remains below the NAAQS. Commenter stated that awaiting monitoring results would also be appropriate if modeling studies have produced differing predictions regarding NAAQS compliance. Commenter stated that providing the opportunity for such monitoring could allow an area in which monitoring demonstrates that the 1-hour SO_2 standard is attained to avoid costly implementation measures.

EPA's Response: As stated further above, the EPA maintains the position that both air quality modeling and ambient monitoring are appropriate tools for characterizing ambient air quality for purposes of informing decisions to implement the SO_2 NAAQS, including designation

determinations. In response to the commenter's suggestion that designations should await future completion of three years of monitoring, the EPA notes that in the case of the designations subject to the court's order to designate certain areas by July 2, 2016, the agency does not have the discretion to await the results of future monitoring.

Comment: One commenter (0328-Luminant) explained (pdf pages 36-42) why they believe AERMOD is not a reliable approach for NAAQS designations, and cannot substitute for the preferred option of monitoring.

EPA's Response: As stated in a previous response, the EPA maintains the position that both air quality modeling and ambient monitoring are appropriate tools for characterizing ambient air quality for purposes of informing decisions to implement the SO_2 NAAQS, including designation determinations.

D. Consent Decree

Comment: One commenter (0328-Luminant) asserted that the Consent Decree must be read consistently with the May 13, 2014, proposed Data Requirements Rule (DRR). Commenter claimed the EPA cannot now contravene its own regulations and deprive states of the opportunity to utilize monitoring data collected under (or alongside) the rule to inform designations by interpreting the Consent Decree in a manner that forecloses monitoring. Commenter alleged that if EPA interprets the Consent Decree to impermissibly require the use of modeling where sufficient monitoring data is not available, even though monitoring data will be available in the future, its interpretation would effectively abrogate the CAA's unclassifiable designation and EPA's prior statements regarding the importance of the use of monitoring data.

One commenter (0328-Luminant) asserted that, if read to effectively force a certain designation through the application of over-predictive modeling alone, the Consent Decree would not only contravene the CAA, it would also modify the DRR in a manner that deprives the regulated community of its ability to meaningfully comment, which is an improper rulemaking and impermissible under the Administrative Procedure Act. Commenter claimed that the proposed DRR, for instance, did not say the rule's procedures allowing states until 2020 to issue recommendations for areas relying on monitoring did not apply to areas with "large" (as defined specifically for this purpose for the first time in the Consent Decree) stationary sources.

One commenter (0328-Luminant) alleged the Consent Decree imposes impermissible legal obligations on states that did not consent to the decree.

EPA's Response: The EPA noted in the June 30, 2016, version of the Response to Comments document that it was not then taking final action on the areas the commenter was addressing, but explained that the commenter's objections to the consent decree, as well as the commenter's views regarding the Data Requirements Rule, are beyond the scope of the final rule issuing designations of the areas then covered. The comments are also beyond the scope of this supplemental final action designating four additional areas in Texas. EPA notes that our authority for this final action is CAA Section 107(d), which required the EPA to promulgate

designations for the 2010 SO_2 NAAQS no later than three years after the date of promulgation of this NAAQS, as the EPA exercised the available one-year extension available under the Act. As stated further above, the EPA maintains our previous position that both air quality modeling and ambient monitoring are appropriate tools for characterizing ambient air quality for purposes of informing decisions to implement the SO_2 NAAQS, including designation determinations. Furthermore, the Consent Decree referenced by commenter sets dates the EPA must act by, not dates that the EPA must wait until to act, and it in no way prejudges what information may be considered or found to be most persuasive in issuing final designations when EPA does act. Additionally, the SO_2 Data Requirements Rule does not restrict the EPA's CAA Section 107(d) authority, but rather will provide future air quality data developed by air agencies that may be used by the EPA in future actions to evaluate areas' air quality under the 2010 SO_2 NAAQS, including area designations and redesignations, as appropriate. Nothing in either the consent decree or the Data Requirements Rule has determined the substantive outcome of any of the final designations being issued in this final rule. The commenter is clearly incorrect that either the consent decree or its relationship to the Data Requirements Rule precludes EPA from issuing designations other than nonattainment, as was amply shown in the June 30, 2016, designations action and is again shown in this supplemental final action for the additional four areas in Texas. Moreover, the consent decree did not modify the Data Requirements Rule (in fact, it and the court's order were entered before the final Data Requirements Rule was promulgated), so it is impossible to regard the court's order as having unlawfully amended a regulation that did not yet exist. The Data Requirements Rule has now been promulgated, is in effect, was never challenged in court, and states and the EPA are proceeding to implement it.

Comment: One commenter (0332-Sierra Club) stated that, in completing area designations, it is critical that EPA consider all SO_2-emitting sources in the areas under consideration for the 2016 designations round, and not merely the sources who meet the triggering criteria of the Consent Decree. Commenter stated that, because the Consent Decree speaks in terms of *areas* to be evaluated, not *sources,* it would be contrary to the Consent Decree if EPA were to finalize designations based solely on sources fitting the Consent Decree criteria. Commenter stated that the Modeling TAD provides that "all sources expected to cause a significant concentration gradient in the vicinity of the source of interest should be explicitly modeled". Commenter stated that, in performing its own air quality modeling, the Sierra Club and others have used the 50 km modeling domain of AERMOD as a tool in determining what sources to include in area modeling evaluations and the EPA should do the same.

EPA's Response: As explained in each area's Technical Support Document, in this final designations rulemaking the EPA appropriately evaluated all SO_2-emitting sources that were expected to have impacts on the subject area, and the agency refers to those TSD and/or specific responses to comments for those areas for further explanation of the scope of each area's analysis.

E. Consider all information in the record

Comment: One commenter (0332-Sierra Club) supported the EPA's use of a mixture of state, industry, and public health and environmental submissions of data, including modeling data. Commenter stated the EPA has properly elected to consider all information before it in keeping

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

Docket Number EPA–HQ–OAR–2014–0464
U.S. Environmental Protection Agency

November 29, 2016

Final Technical Support Document for Supplemental Designations – Four Areas in Texas

Texas
Area Designations for the 2010 SO_2 Primary National Ambient Air Quality Standard
Supplement for Four Deferred Areas

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, was the deadline established by the U.S. District Court for the Northern District of California for the EPA to designate certain areas. This deadline was the first of three deadlines established by the court for the EPA to complete area designations for the 2010 SO_2 NAAQS. The EPA notified the areas subject to the July 2, 2016 deadline of its intended designations on March 1, 2016, including the four Texas areas addressed in this supplemental action. The EPA issued final designations for the majority of these areas on June 30, 2016. However, before meeting the July 2, 2016, deadline, the EPA and plaintiffs, who are parties to the consent decree that gave rise to the court order, agreed to extensions for a limited number of the subject areas in Texas: Freestone County – Big Brown Steam Electric Station, Titus County – Monticello Steam Electric Station, Rusk County – Martin Lake Electrical Station, and Milam County – Sandow Power Plant. The deadline for issuing a designation for these four areas was extended to November 29, 2016, and the EPA is now issuing final designations for these areas to supplement the June 30, 2016, designations.

Texas submitted updated recommendations on September 18, 2015. Table 1 below lists Texas' recommendations and identifies the counties in Texas that the EPA is designating in order to meet the November 29, 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
Freestone-Anderson Counties, Texas	Freestone County Borders	Unclassifiable/ Attainment	Portions of Freestone and Anderson Counties The area bound by the following UTM coordinates (NAD 83 Datum, UTM Zone 14): 766752.69, 3536333.0 784752.69, 3536333.0 784752.69, 3512333.0 766752.69, 3512333.0	Nonattainment
Titus County, Texas	Titus County Borders	Unclassifiable/ Attainment	Portions of Titus County The area bound by the following UTM coordinates (NAD 83 Datum, UTM Zone 15): X Y 304329.030, 3666971.000 311629.030, 3666971.000 311629.030, 3661870.500 304329.030, 3661870.500	Nonattainment
Rusk-Panola Counties, Texas	Rusk County Borders	Unclassifiable/ Attainment	Portions of Rusk and Panola Counties The area bound by the following UTM coordinates (NAD 83 Datum, UTM Zone 15): X Y 340067.31, 3575814.75 356767.31, 3575814.75 356767.31, 3564314.75 340067.31, 3564314.75	Nonattainment
Milam County, Texas	Milam County Borders	Unclassifiable/ Attainment	Same as State's Recommendation	Unclassifiable

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.[1] 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 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

[1] 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.

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. As discussed above, there were four areas in Texas for which extensions to the EPA's July 2, 2016, deadline were issued, and the current deadline is November 29, 2016. At this time, we are supplementing our previous Response to Comments and Technical Support Documents that were signed on June 30, 2016, as part of our final designation action to meet the July 2, 2016, date for the other sources and areas addressed in this round of designations.

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.

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, these 4 sources in the State meet the emissions criteria of the consent decree for which the EPA must complete designations by the extension date of November 29, 2016. In this supplemental final technical support document, the EPA discusses its review and technical analysis of Texas' 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 less than or equal to 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 is violating the 2010 SO_2 NAAQS or contributes to a violation in a nearby area. 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 it meets the 2010 SO_2 NAAQS or whether it contributes to an area that does not meet the 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 and is not contributing to an area that violates 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 Freestone County, Texas

Introduction

The Freestone 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). As of March 2, 2015, this stationary source had not met the specific criteria in the consent decree for being "announced for retirement." Specifically, in 2012, the Big Brown Steam Electric Station (Big Brown) emitted 60,681 tons of SO_2, and had an emissions rate of 1.59 lbs SO_2/mmBTU. Pursuant to the March 2, 2015, consent decree, the EPA must designate the area surrounding the facility by July 2, 2016. However, before meeting the July 2, 2016, deadline for this area, the EPA and plaintiffs, who are parties to the consent decree that gave rise to the court order, agreed to extensions for a limited number of the subject areas, including this area. The deadline for issuing a designation for this area is now November 29, 2016.

In its September 18, 2015 submission, Texas provided no formal recommendation for the specific area surrounding the Big Brown Steam Electric Station. Instead, as part of its September 18, 2015, submittal, Texas provided a general recommendation of unclassifiable/attainment for the 243 counties located in the State, including Freestone County (and Anderson County), that do not have any operational SO_2 regulatory monitors. This general recommendation for Freestone County was not accompanied by modeling, monitoring, or other technical information to inform our decision regarding the attainment status of the area.

On February 11, 2016, the EPA notified Texas that we intended to designate the portions of Freestone and Anderson Counties, Texas, as nonattainment. Additionally, we informed Texas that our intended boundaries for the nonattainment area comprised of portions of Freestone and Anderson Counties, bound by these UTM coordinates (NAD 83 Datum, UTM Zone 14):

X	Y
762752,	3540333
762752,	3510333
789753,	3510333
789753,	3540333

Our intended designation and associated boundaries were based on, among other things, Sierra Club's modeling of actual emissions reported from both the Big Brown and background source Limestone Electric Generating Stations during the 2013 to 2015 calendar years. An analysis of the modeling data indicates it was performed in accordance with appropriate EPA modeling guidance and using generally conservative assumptions.

The EPA identified aspects of Sierra Club's modeling used for our proposal that were not as refined as possible, but after our analysis of those aspects, we proposed that the modeling was adequate for a determination of nonattainment. The modeling did not include building downwash or variable stack temperature and velocity, since Sierra Club did not have access to

information needed to support such inclusion. Including building downwash will generally, though not always, increase the predicted maximum modeled concentrations. Sierra Club used stack velocity and temperatures consistent with 100% load. This, coupled with actual hourly emission rates, should provide conservative estimates of actual concentrations because higher temperatures and velocities of 100% load when paired with lower emissions of less than 100% load should provide an overestimation of the dispersion and thus an underestimation of maximum ambient concentrations at ground level. Given that modeled concentrations are 64% above the standard, the inclusion of building downwash and variable stack parameters, etc. in the modeling would not result in values near or below the standard; therefore, the modeling is sufficient for a determination of nonattainment.

Therefore, EPA's view was that the Sierra Club modeling was relevant information that must be considered in our designation decision. While TCEQ provided comments on Sierra Club's initial modeling submittal, we received no additional relevant technical information from the State or other parties before issuing our intended designation. In response to the TCEQ comments, Sierra Club updated its modeling for the area addressing most of the concerns raised and submitted the results to the EPA on December 15, 2015. Therefore, we found Sierra Club's modeling was sufficient for a proposed determination of nonattainment. It should be noted that Sierra Club took into account emissions from other nearby facilities and background SO_2 concentration. Based on Sierra Club's December 2015 modeling showing the area in the vicinity of Big Brown does not meet the 1-hr SO_2 standard, we intended to designate the area defined above as nonattainment in our proposed designation.

EPA's intended boundaries for the proposed nonattainment area encompassed the area shown to be in violation of the standard and the principal source that contributes to the violation. We indicated that our initial analysis of the maximum impacts around Big Brown indicated that Big Brown was responsible for almost 100% of the impacts on the maximum, and therefore only included the principal source in the intended boundaries.

Detailed rationale, analyses, and other information supporting our intended designation for this area can be found in the draft technical support document for Texas, and this document along with all others related to this designation 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 nonattainment designation for the portions of Freestone and Anderson Counties, Texas, 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 draft 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 supplement to the June 30, 2016, response to comments

document (RTC), available in the docket, Docket ID EPA-HQ-OAR-2014-0464, supersede those found in the draft document.

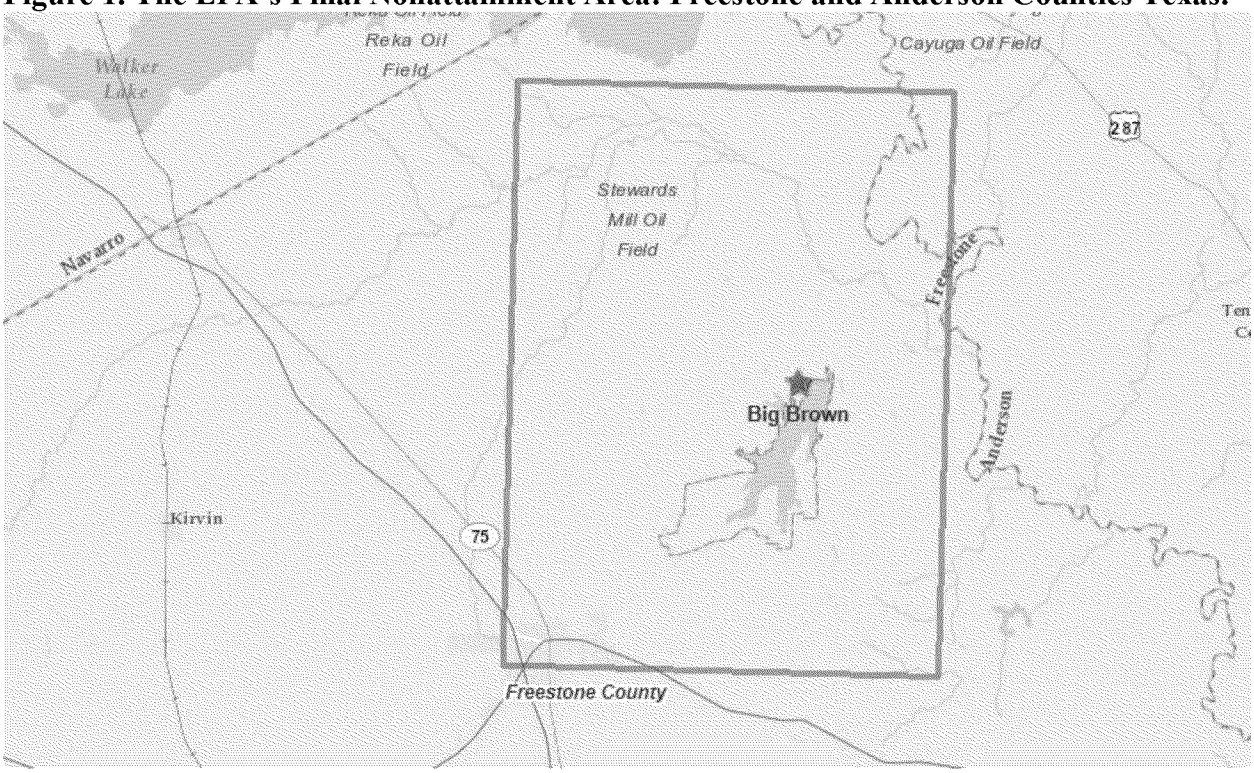
As further detailed below, after carefully considering all available data and information, the EPA is designating portions of Freestone and Anderson Counties, Texas, (to be referred to as the Freestone and Anderson Counties, Texas area) as nonattainment for the 2010 SO_2 NAAQS. This nonattainment area is bound by these UTM coordinates:

X	Y
766752.69,	3536333.0
784752.69,	3536333.0
784752.69,	3512333.0
766752.69,	3512333.0

NAD 83 Datum, UTM Zone 14

and is shown in Figure 1 below:

Figure 1. The EPA's Final Nonattainment Area: Freestone and Anderson Counties Texas.



The EPA received substantive comments from citizens, Sierra Club, Luminant, the Texas Commission on Environmental Quality, and the Governor of the State of Texas regarding our intended nonattainment designation for the Freestone and Anderson Counties, Texas, area, and a comprehensive summary of these comments and our responses can be found in the supplement to the RTC.

Also, additional information, specifically air dispersion modeling, was submitted to the EPA during the state and public comment period in order to characterize air quality in the Freestone and Anderson Counties, Texas, area. Notably, the Sierra Club and Luminant provided additional air dispersion modeling information during the comment period. TCEQ also included Luminant's modeling analysis as an attachment to its comments. The Sierra Club's modeling report asserted that Big Brown is causing nonattainment of the 2010 one-hour SO_2 standard when modeled alone without considering any other nearby contributing sources. The Luminant modeling report asserted that Big Brown, when modeled with several adjustments intended to reduce what Luminant asserts is inappropriate "conservatism" (i.e., alleged overestimation of ambient concentrations, in this use of the term) in the AERMOD model, does not contribute to nonattainment in the Freestone and Anderson Counties, Texas, area. Luminant submitted this information 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.

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

Though new modeling was received from both Luminant and the Sierra Club, the Luminant modeling did not conform to the guidance of the Modeling TAD.

A non-EPA preprocessor model, AERLIFT, was applied by Luminant's contractor to the CEM data to increase the observed temperatures and velocities. AERLIFT is directed toward situations where two or more stacks line up with the wind direction causing the plumes to merge as they rise and reducing the overall entrainment of cooler ambient air.

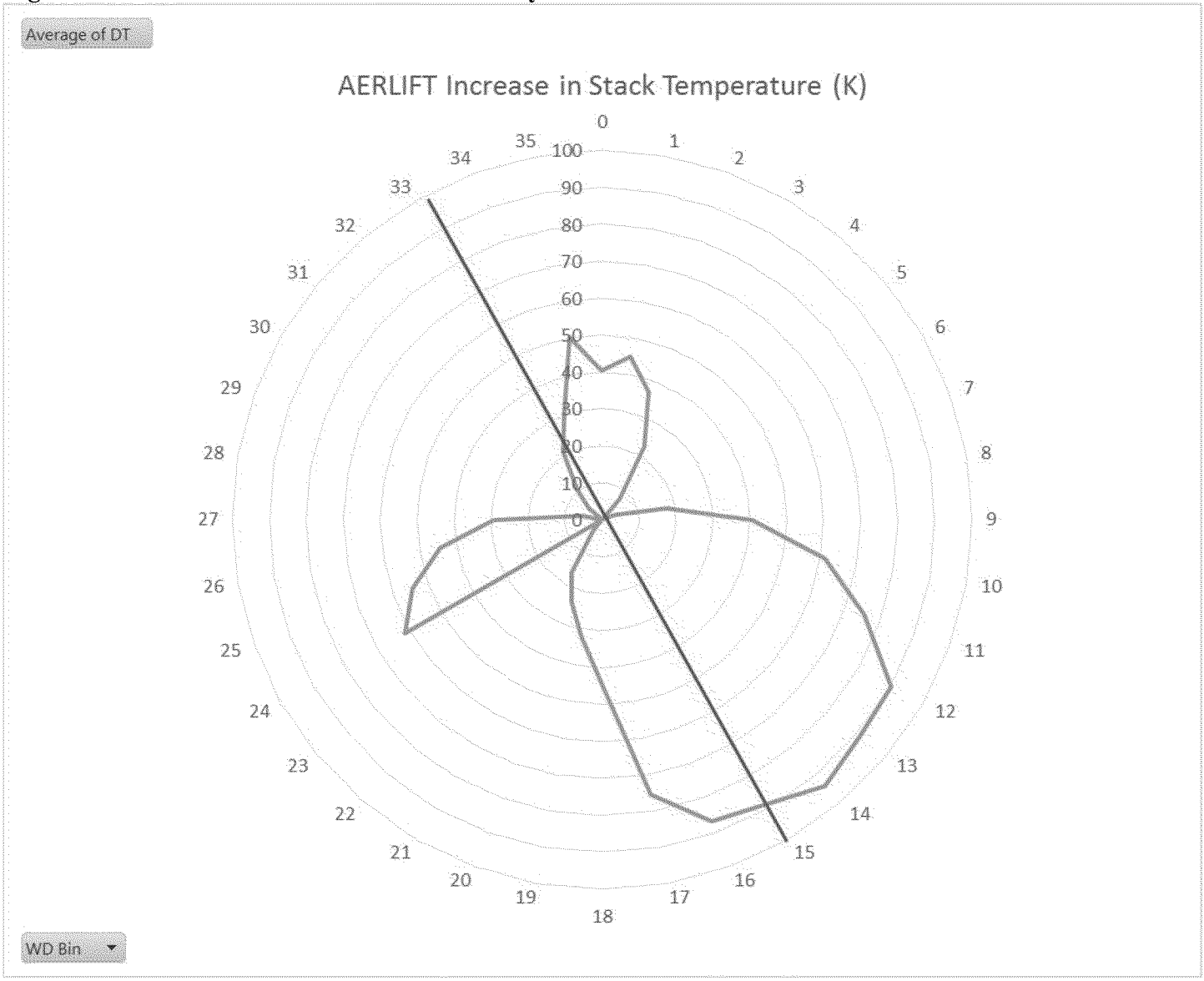
EPA generally encourages modeling improvements that give more realistic simulations of the dispersion from sources, but there is a process for approval of suggested alternatives. AERMOD has undergone continual development since its introduction. While the phenomena modeled by the AERLIFT technique are theorized and documented from field studies at a few other sources and may affect the dispersion from the modeled source, the implementation of them in a specific

case depends on the use of specific algorithms in computer code. However, any model enhancements are required to go through standard EPA model evaluation, review, and approval before being used in regulatory applications as required by 40 CFR Part 51 Appendix W (Guideline on Air Quality Models). Our evaluation of the adjustments that AERLIFT makes in stack parameters at sources indicates the adjustments are large and not consistent with the theory of how the adjustments should be implemented. Regardless, the existing AERMOD model (without AERLIFT adjustments) has been shown to do a good job at modeling impacts of emissions from tall stacks in a number of field studies and such changes to the model would have to be analyzed to ensure the model was still accurate and acceptable for regulatory use with the inclusion of such adjustments. A full review of AERLIFT's coding, applicability of the science and analysis with all the datasets that EPA uses in analyzing changes to the AERMOD system has not yet occurred for AERLIFT.

To get an idea of the degree of changes made by the AERLIFT implementation submitted by Luminant, a review of the modifications made to the observed stack parameters was conducted by EPA Region 6. This review was conducted by comparing the original CEM data to the AERLIFTed parameters. The review showed that the stack temperature can be increased during individual hours by as much as 200 K by the AERLIFT preprocessor. To put this modification to stack gas temperature in context, the wet scrubbed plumes are approximately 80-90 K above ambient conditions, so these adjustments would drastically impact the amount of buoyancy estimated in the model and ultimate plume rise and would result in large differences in modeled ground concentrations around the source.

The figure below of the *average* temperature increase by wind direction demonstrates for some wind directions AERLIFT increases the average stack temperature by over 90K. The AERLIFT model also seems to be increasing the stack temperature for wind directions that are not roughly in line with the stacks (331 and 151 degrees K). These temperature changes with the accompanying stack gas exit velocity increases raise the average buoyancy flux of the emissions by up to 50% for some wind directions. For certain hours the increase is far greater. Such changes in the modeled buoyancy of the plume are expected to have a major effect on the location and concentrations of maximum ground level impact. These changes seem disproportionately large and the impacts they would have on the modeling are very significant. Prior to use in a regulatory setting EPA believes that the particular implementations of AERLIFT needs to undergo extensive review versus test cases previously used for AERMOD model review. While the scientific principles seem like these might be refinements, it has not been substantiated that the implementation of these pre-processors and their coding is a refinement within AERMOD modeling platform and a full review as required by EPA for regulatory models has not been completed. There is no information to support that Luminant's modeling results with the AERLIFT processor meets the requirements for models used in a regulatory decision. It is premature to use AERLIFT in this context for informing our designation decisions.

Figure 2. Increase in stack temperature (degrees K) due to AERLIFT preprocessing for Big Brown. The line of the stacks is denoted by the red line.



As well, the Luminant modeling used a proposed beta option, LOWWIND3, which has not been approved by EPA for regulatory use. The EPA notes that the use of beta options, such as ADJ_U* and LOWWIND3, in AERMOD for any regulatory applications requires adherence with Appendix W, Section 3.2.2. This is further explained in the EPA's December 10, 2015, Memorandum titled, "Clarification on the Approval Process for Regulatory Application of the AERMOD Modeling System Beta Options." Among other conditions, the use of beta options requires consultation with the appropriate EPA Regional Offices. Upon concurrence by the EPA's Modeling Clearinghouse, EPA Regional Offices may approve the use of these beta options for regulatory applications as an alternative model. This process was not initiated or completed in the modeling of Big Brown and thus the modeling based on their use is not acceptable for this regulatory use. We also note that at this point there have been some site

specific ADJ_U* approvals through the Model Clearinghouse process, but no LOWWIND3 approvals to date.

The Sierra Club's final modeling (March 2016) followed the guidance in the Modeling TAD subject to the constraints of the data available to them, used the default regulatory options, and used AERMOD version 15181, the most recent available at the time of the modeling. The Sierra Club used the actual 2013-2015 emission rates and hourly velocities based on data from the USEPA Clearinghouse and CAMD databases. The Sierra Club's 2016 modeling departed from the Modeling TAD's general recommendations in that they used 1.5m flagpole receptors. The use of the flagpole receptors is not expected to make a significant difference in the modeled design value concentrations in this case. If this was adjusted to EPA's implied recommended ground level height (0 m), we would expect only a very slight change in the modeled numbers, and the area of exceedances and magnitude of the values would be basically equivalent, and, therefore, not change our final action. Sensitivity modeling conducted by the Sierra Club for Big Brown indicated a 0.2% change in the maximum value. EPA Region 6 also had a sensitivity analyses for another CD source Dolet Hills in northwest Louisiana (further discussed below) and found decreases in modeled SO_2 DV of 0.003 $\mu g/m^3$. Therefore, from these two sensitivities the change in maximum DV was between almost 0% and 0.2% when removing the flagpole receptors and estimating concentrations at ground level. Since Sierra Club's 2016 modeling maximum is on the order of 64% above the standard, the change due to flagpole receptor heights would not decrease the value to below the standard. 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. The facility was evaluated to determine if it should be modeled using the rural or urban dispersion coefficient option in AERMOD. When performing the modeling for the area of analysis, the Sierra Club determined that it was most appropriate to run the model in rural mode for both earlier modeling and the most recent modeling provided to EPA. USEPA's AERSURFACE v. 13016 was used to develop the meteorological data for the modeling analysis. This model was also used to evaluate surrounding land use within 3 kilometers. Based on the output from the AERSURFACE, approximately 0.8% of surrounding land use around the modeled facility was of urban land use types including Type 21 – Low Intensity Residential, Type 22 – High Intensity Residential, and Type 23 – Commercial / Industrial / Transportation. The analysis showed that rural dispersion coefficients are appropriate. Based on the AERSURFACE analyses conducted by both Sierra Club (all modeling) and Luminant, they both concluded that the rural option should be used for modeling of this area, and EPA believes this conclusion is appropriate.

Final Technical Support Document

North Dakota
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 North Dakota because 3 emission sources meet the conditions of the court's order.

North Dakota submitted updated recommendations on September 16, 2015. Table 1 below lists North Dakota's recommendations and identifies the counties in North Dakota 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 – North Dakota's Recommended and the EPA's Final Designations

Area	State's Recommended Area Definition	State's Recommended Designation	EPA's Final Area Definition	EPA's Final Designation
McLean County/Eastern Mercer County, North Dakota	Unspecified (Area around source)	Attainment	McLean Co., North Dakota (full county), Within Mercer Co.: Area east of CR-37/ND 31, east/north of ND 200 ALT, west of the eastern border of Mercer County/Missouri River, south of the	Unclassifiable/ Attainment

			Knife River National Historic Site. (McLean County/Eastern Mercer County, ND)	
Central Mercer County, North Dakota	Unspecified (Area around source)	Attainment	Within Mercer Co.: Area west of ND 49/61st Ave SW, north of – Co. Rd 15/17th St. SW, east of Co. Rd 13, south and east of the town Zap, south of 8th St. SW/ND 200 (Central Mercer County, ND)	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.[1] 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

[1] 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. North Dakota contains no such areas.

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 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 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 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 North Dakota. However, there are three 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 North Dakota's updated recommendations for the areas that we must designate. The EPA also discusses any intended and final modifications from the State's recommendations 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 less than or equal to 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 the McLean County/Eastern Mercer County Area

Introduction

The area in North Dakota including McLean County and the eastern portion of Mercer County contains two stationary sources 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). As of March 2, 2015, this stationary source had not met the criteria for being "announced for retirement." Specifically, in 2012, the Coal Creek Station emitted 16,273 tons of SO_2, and had an emissions rate of 0.34 lbs SO_2/mmBTU. Also in 2012, the Leland Olds Station emitted 38,323 tons of SO_2, and had an emissions rate of 2.06 lbs SO_2/mmBTU. Pursuant to the March 2, 2015 court-ordered schedule, the EPA must designate the area surrounding these facilities by July 2, 2016.

In its September 16, 2015 submission, North Dakota recommended that the area surrounding both the Coal Creek and Leland Olds Stations be designated as attainment based on an assessment and characterization of air quality from the facilities and other nearby sources (specifically, the Stanton Station near Leland Olds) 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 both actual emissions (for Stanton Station) and allowable emissions (for Leland Olds Station).

On February 16, 2016, the EPA notified North Dakota that the Agency intended to designate the McLean County/Eastern Mercer County area as unclassifiable. Additionally, we informed the state that our intended boundaries for the unclassifiable area consisted of the entirety of McLean County, and within Mercer County: the area east of CR-37/ND 31, east/north of ND 200 ALT, west of the eastern border of Mercer County/Missouri River, and south of the Knife River National Historic Site. Our intended designation and associated boundaries were based on the fact that the Leland Olds allowable emissions rate was not adequate to demonstrate attainment for the 2010 SO_2 NAAQS. Detailed rationale, analyses, and other information supporting our intended designation for this area can be found in the preliminary technical support document for North Dakota, 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 16, 2016 notification to North Dakota regarding our intended unclassifiable designation for the McLean County/Eastern Mercer 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.

After carefully considering all available data and information, specifically the updated March 29, 2016 modeling conducted with an adequately conservative allowable emission rate for the Leland Olds Station, the EPA determines that the McLean County/Eastern Mercer County area is meeting the 2010 SO_2 NAAQS, and is designating the area as unclassifiable/attainment. The boundaries for this unclassifiable/attainment area still consist of the entirety of McLean County, and within Mercer County: the area east of CR-37/ND 31, east/north of ND 200 ALT, west of the eastern border of Mercer County/Missouri River, and south of the Knife River National Historic Site, and are shown in Figure 1 below, along with the locations of Coal Creek and Leland Olds. Figure 2 below provides an enhanced view of the Mercer County portion of the area, and includes the nearby emitter of SO_2 considered in this analysis, Stanton Station.

Figure 1. The EPA's final unclassifiable/attainment area: McLean County/Eastern Mercer County, North Dakota

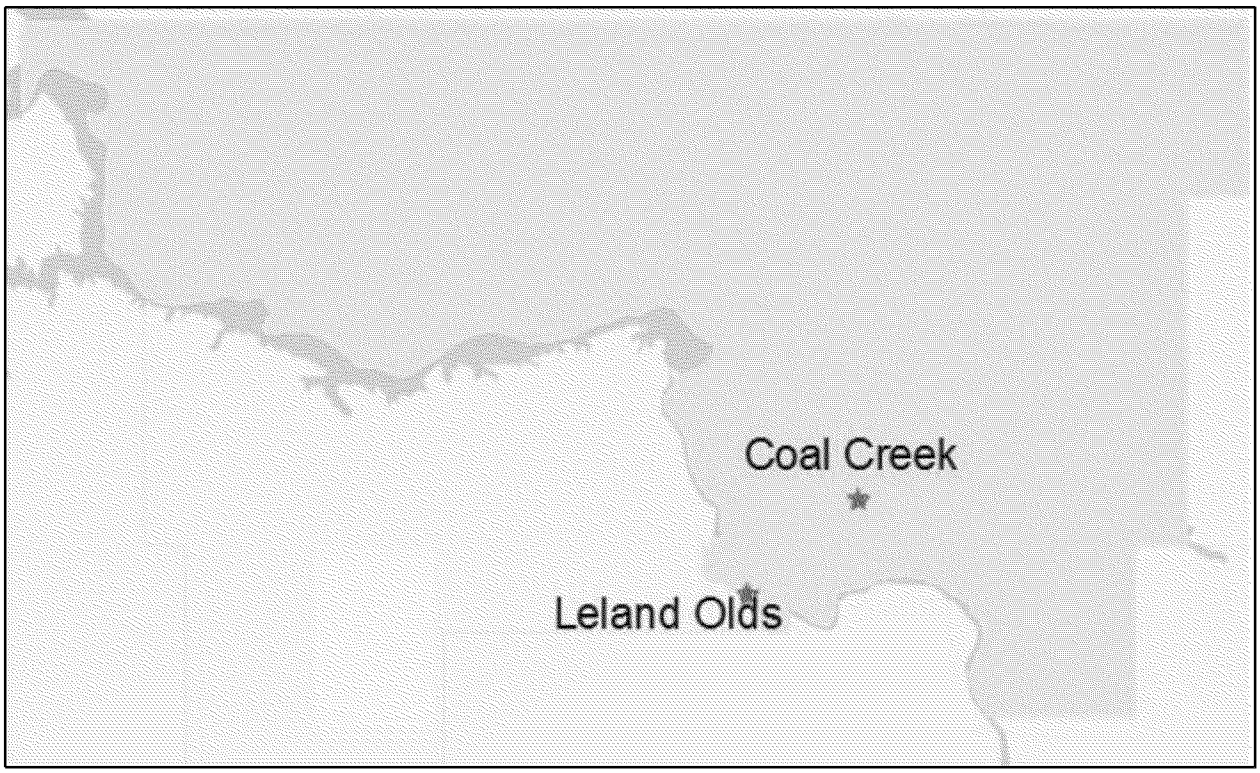
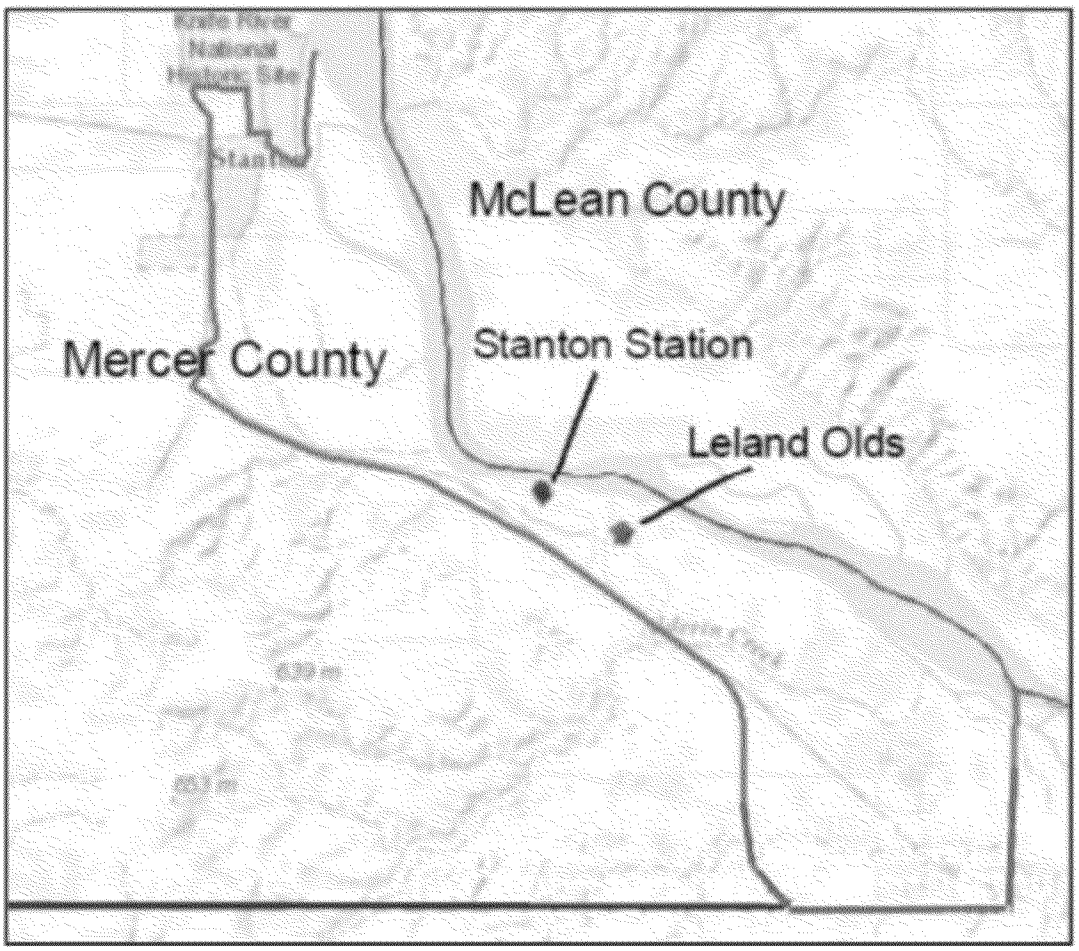


Figure 2: Close up of the Mercer County portion of EPA's McLean and Mercer County combined designation.



As previously noted, 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 and our responses, or conclusions presented in this final technical support document.

Subsequent to our February 16, 2016 notification to the State, the EPA received additional information from the State regarding our intended unclassifiable designation for the McLean County/Eastern Mercer County, North Dakota area.

Specifically, the State submitted documentation including air dispersion modeling conducted by AECOM, Inc., which was contracted by Basin Electric Power Cooperative, to the EPA on March 29, 2016 asserting that this area should be designated attainment. This information was submitted to support a modification to our proposed designation. 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.

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

In its September 16, 2015 designation recommendation, the State assessed AECOM modeling which utilized both the default options recommended by EPA in the modeling TAD, and non-default or beta configuration options for treating low-wind conditions. These non-default options include adjustments to the computation of the friction velocity (ADJ_U*) in the AERMET meteorological pre-processor and lateral wind speed standard deviation computations incorporated into AERMOD ("LOWWIND3" option). As noted in our February 16, 2016 technical support document, these analyses were not evaluated or approved by EPA prior to the utilization of these options in the modeling. For that reason, the EPA only reviewed the modeling analyses that used the current regulatory defaults to characterize SO_2 concentrations.

In its March 29, 2016, updated modeling demonstration, the State again utilized both the default and beta configuration options. The default options were not modified from the September 16, 2015, initial modeling demonstration, which the EPA determined to be appropriate with the exception of Leland Olds PTE emissions. Specifically, in the initial modeling demonstration AECOM modeled a federally enforceable PTE limit as the emissions for the Leland Olds Station to account for the wet scrubbers recently installed at the facility, but did not adjust this emission rate (0.15 lb/MMBtu on a 30-day rolling average) upward to account for emissions spikes that would be smoothed out over the longer term average.[2] As the EPA has already reviewed all other aspects of the default option-based modeling and found them to be appropriate, the EPA is only reviewing the change to the Leland Olds PTE emissions, and the impact of that change on the overall default option-based modeling demonstration, in this document. For EPA's review of and concurrence on all aspects (aside from the Leland Olds emission rate) of the state's default option-based modeling, please see the preliminary technical support document at pages 9-22. As discussed further below, the EPA considers the update to the Leland Olds emission rate to correct the problem with the initial modeling, making the March 29, 2016, modeling demonstration appropriate for the purposes of demonstrating attainment of and designation under the 2010 SO_2 NAAQS. The EPA did not review the portion of the state's modeling which utilized beta configuration options presented in its March 29, 2016 modeling demonstration, since, as for the use of these beta options in the original modeling, the State has not requested or received alternative model approval of these beta options from the respective Regional Office with concurrence from the EPA's Model Clearinghouse. The necessity for this EPA approval of

[2] See the preliminary technical support document at 14.

any regulatory application of AERMOD beta options was described in a December 10, 2015 clarification memorandum.[3] The EPA has determined that the model selection and components are appropriate.

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 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 EPA believes that 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 EPA believes that detailed throughput, operating schedules, and emissions information from the impacted source 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."

As noted, the original modeling relied upon by the State utilized PTE emissions from Leland Olds. North Dakota submitted its initial designation recommendation in September of 2015, meaning that the most recent the year of emissions data to be modeled at the time were 2012 – 2014. Basin Electric recently installed wet scrubbers on the facility (June 2013 for unit 1 and October 2012 for unit 2), and the State utilized PTE so that these controls would be taken into account. The modeled PTE rate for the facility in the State's initial recommendation was 1162.8 lbs/hr, which was based on continuous operation at the facility's SIP-approved maximum allowable 30-day rolling average rate of 0.15 lb/mmBTU. However, to properly account for short-term emissions spikes that can impact a one-hour rate but be smoothed out over a 30-day rate, the EPA recommends that an adjustment factor be applied to the modeled hourly emissions rate (see EPA's April 23, 2014 SO_2 Nonattainment Area Guidance at 25-37, and Appendices B, C and D). AECOM did not apply such a factor when modeling Leland Olds. Therefore, EPA found that the AECOM modeling analysis could not be relied upon for the purposes of

[3] https://www3.epa.gov/ttn/scram/guidance/clarification/AERMOD_Beta_Options_Memo-20151210.pdf

Responses to Significant Comments on the Designation Recommendations for the 2010 Sulfur Dioxide Primary National Ambient Air Quality Standard (NAAQS)

Docket Number EPA–HQ–OAR–2014–0464
U.S. Environmental Protection Agency

June 30, 2016

Contents

I. Introduction 5
II. Background 5
III. General Comments 6
A. Modeling 6
1. AERMOD LOWWIND3 Option 6
2. Modeling to determine attainment status 11
3. AERMOD FLAGPOLE option 12
B. Designation Categories 13
C. Monitoring 14
D. Consent Decree 16
E. Consider all information in the record 17
F. Support Other's Comments 17
G. Other Comments 18
IV. Arkansas 19
A. Independence County 19
B. Jefferson County 20
V. Colorado 20
A. Colorado Springs 20
B. Morgan County 34
VI. Georgia 35
A. Juliette 35
VIII. Illinois 37
A. Alton Township 37
B. Marion 41
IX. Indiana 42
General 42
A. Gibson County 43
B. Posey County 46
X. Iowa 48
A. Des Moines County 48
B. Wapello County 49
C. Woodbury County 50

XI. Kansas 51
A. Wyandotte County 51
XII. Kentucky 51
A. Ohio County 51
B. Pulaski County 52
XIII. Louisiana 53
A. DeSoto Parish 53
B. Calcasieu Parish 60
XIV. Maryland 69
A. Anne Arundel County and Baltimore County 69
XV. Michigan 74
A. St. Clair 74
B. Bay County 75
E. Monroe County 75
XVII. Missouri 77
A. Franklin County 77
B. Jackson County 23
C. Scott County 125
XVIII. Nebraska 125
A. Lancaster County 125
B. Lincoln County 126
XX. North Carolina 126
A. Brunswick County 126
XXI. North Dakota 127
A. Mclean County/Eastern Mercer County 127
XXII. Ohio 128
A. Clermont County 128
B. Gallia/Meigs County 128
XXIII. Oklahoma 132
A. Muskogee County 132
B. Noble County 133
XXIV. South Dakota 134
A. Grant County 134

XXV. Tennessee 135
A. Sumner County 135
XXVI. Texas 135
General Comments 135
A. Atascosa County 142
B. Fort Bend County 142
C. Freestone-Anderson County 143
D. Goliad County 143
E. Gregg County 143
F. Lamb County 145
G. Limestone County 145
H. McLennan County 145
I. Milam County 149
J. Panola County 149
K. Potter County 150
L. Robertson County 150
M. Rusk County 150
N. Titus County 151

I. Introduction

This document, together with the preamble to the final designations action, and the Technical Support Documents (TSDs) for the designations, presents the responses of the U.S. Environmental Protection Agency (EPA) to the significant comments we received on our responses to certain state designation recommendations for the 2010 Sulfur Dioxide (SO_2) Primary National Ambient Air Quality Standard (NAAQS). The public comment period for the EPA's intended designations ended on March 31, 2016. The responses presented in this document are intended to either augment the responses to comments that appear in the preamble to the final action and the TSDs or to address comments not discussed in those documents. In this document "APC" refers to anonymous public comments.

II. Background

On June 2, 2010, the EPA established a new primary 1-hour SO_2 standard at a level of 75 parts per billion (ppb) to protect against health effects associated with SO_2 exposure, including a range of serious respiratory illnesses. The EPA retained the secondary 3-hour SO_2 standard on March 20, 2012, to protect against welfare effects, including impacts on sensitive vegetation and forested ecosystems.

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

The EPA completed an initial round of SO_2 designations for certain areas of the country on July 25, 2013, designating 29 areas in 16 states as nonattainment. Pursuant to a March 2, 2015, court-ordered schedule, the EPA must complete SO_2 designations for the remaining areas of the country by three specific deadlines: July 2, 2016, December 31, 2017, and December 31, 2020. This current second round of designations addresses 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/mmBTU.

The EPA has determined that the areas meeting these criteria are associated with 64 stationary sources and the island of Hawaii. On or about February 16, 2016, the EPA notified affected states of its intended designation of certain specific areas as either nonattainment, unclassifiable/attainment, or unclassifiable for the 2010 SO_2 NAAQS. On March 1, 2016 (81 FR 10564), the EPA published a notice of availability to solicit input from interested parties other than states on the EPA's recent responses to the state designation recommendations for the 2010 SO_2 NAAQS.

III. General Comments

A. Modeling

1. AERMOD LOWWIND3 Option

Comment: Some commenters (0296-FirstEnergy, 0299-OH Utilities Group, 0309-DTE Energy, 0310- NAAQS Implementation Coalition, 0314-OH Valley Electric, 0329-UARG) suggested the EPA should allow states to use the LOWWIND3 option in conjunction with ADJ_ U* to provide better performance of the model under low wind speed conditions. Two commenters (0309-DTE Energy, 0329-UARG) stated that the EPA's refusal to accept modeling demonstrations that utilize these more sophisticated options may lead to areas being designated nonattainment for this NAAQS where actual air quality meets this NAAQS due to the default model's over-prediction tendency.

EPA's Response:

The EPA proposed revisions to the *Guideline on Air Quality Models* on July 29, 2015, which include proposed updates to the AERMOD modeling system, the air quality dispersion model recommended for use in the SO_2 NAAQS designation process. Specifically, EPA proposed incorporating two Beta options:

- An option in AERMET to adjust the surface friction velocity (u*) to address issues with AERMOD over prediction under stable, low wind speed conditions.
- A low wind option, LOWWIND3, to address issues with model over predictions under low wind conditions. This option increases the minimum value of the lateral turbulence intensity (sigma-v) from 0.2 to 0.3 and adjusts the dispersion coefficient to account for the effects of horizontal plume meander on the plume centerline concentrations. It also eliminates upwind dispersion, which is incongruous with a straight-line, steady-state plume dispersion model such as AERMOD.

These "Beta options" are currently being considered as part of an ongoing rulemaking process and have not been formally adopted into the regulatory version of AERMOD, and pending completion of that rulemaking EPA considers the use of AERMOD run with non-regulatory options as an alternative model. The necessity for this EPA approval of any regulatory application of an alternative model is described in Section 3 of the SO_2 Modeling TAD (first draft available May 2013). Furthermore, the use of AERMOD Beta options was discussed at the 11th Modeling Conference in August 2015 and subsequently clarified in a December 10, 2015, memorandum.[1] The Beta options are also discussed in Section 2 of the latest version of the Modeling TAD (February 2016). In order to obtain EPA approval to run AERMOD using the Beta options, the alternative model demonstrations must first be submitted to the EPA Region for approval and concurred with by the Model Clearinghouse. At this time, EPA will only consider

[1] *See* https://www3.epa.gov/ttn/scram/guidance/clarification/AERMOD_Beta_Options_Memo-20151210.pdf

the modeling analyses that used the current regulatory defaults within AERMOD to predict SO_2 design values for the designations due July 2, 2016, unless an entity seeking to use a Beta option has gained formal approval to use an alternative model consistent with this longstanding process. Where such a request has not been submitted and approved for a specific case, EPA cannot rely upon modeling results that use these Beta options in making its final designation.

Comment: Two commenters (0314-OH Valley Electric, 0327-AEP) recognized that the LOWWIND3 Option is not fully approved as a default option in AERMOD, and an alternative model demonstration is required. The commenters stated that Ohio EPA did perform the necessary study and submitted it as part of their demonstration package. Commenters stated that while the EPA does not discuss the appropriateness of Ohio EPA's alternative model demonstration, it cites a guidance memo to apparently disregard Ohio EPA's demonstration. The memo requires a specific process to use an alternative model, but the memo did not exist at the time the proposed designation modeling was filed. Commenters stated that a guidance memorandum cannot be used to establish legally binding requirements, and retroactive application of any rule is also inappropriate. One commenter (0327-AEP) stated that the EPA should approve the use of the LOWWIND3 Beta Option after considering the study submitted by Ohio EPA on its merits, using the requirements that applied to such demonstrations at the time of the submission.

One commenter (0329-UARG) recognized that in a memorandum from December, the EPA announced that use of proposed "future regulatory options" for AERMOD for SO_2 designations "require[s] formal approval as an alternative model and [is] subject to the requirements of Appendix W, Section 3.2.2." The commenter stated that this memorandum is merely guidance, it is not binding, and it was not issued until after the September 18, 2015, date by which the EPA requested states to provide their updated designations to the Agency. Commenter stated it would be arbitrary and unreasonable for the EPA to expect states' recommendations to have complied with this later guidance.

EPA's Response:

EPA clearly described the necessity for approval of any regulatory application of an alternative model in Section 3 of the SO_2 modeling TAD (first draft available in May 2013). Furthermore, the use of AERMOD Beta options was discussed at the 11th Modeling Conference in August 2015 and subsequently clarified in a December 10, 2015, memorandum. The Beta options are also discussed in Section 2 of the latest version of the modeling TAD (February 2016). In order to obtain EPA approval to run AERMOD using the Beta options, the alternative model demonstrations must first be submitted to the EPA Region for approval and concurred with by the Model Clearinghouse. At this time, EPA will only consider modeling analyses that used the current regulatory defaults within AERMOD to predict SO_2 design values for the designations due July 2, 2016, unless an entity seeking to use a Beta option has gained formal approval to use an alternative model consistent with this longstanding process. Where such a request has not

been submitted and approved for a specific case, EPA cannot rely upon modeling results that use these Beta options in making its final designation. The EPA recognizes that the TAD is not a legally binding, final agency action, and that the other guidance memoranda are similarly non-binding. However, the EPA disagrees that requiring Model Clearinghouse approval in order to use the non-regulatory Beta options in these designations constitutes an impermissible retroactive application of a rule or converts the TAD and the guidance into binding final requirements. That is because these designations themselves are final actions, and the EPA has explained a reasonable basis for not relying upon modeling using the Beta options unless certain processes are followed to ensure that their use is appropriate in a given case. However, these designations do not take final action on the pending rulemaking to revise Appendix W itself, nor do they pre-judge the outcome of that pending rulemaking in any way.

Comment: Some commenters (0314-OH Valley Electric, 0327-AEP, 0329-UARG) supported the EPA's positions that the alternative model formulation is superior to the approved version of the model, and that there is no information available demonstrating that AERMOD with LOWWIND3 provides improved statistical performance on tall stack sources. The commenters stated that the Version 15181 Addendum to the AERMOD User's Guide, Appendix F contains an analysis using the EPA's standard Lovett evaluation database, which is a tall stack case. The commenters stated that this case demonstrates that the LOWWIND3 Beta Option coupled with the Beta U* Option in AERMET shows a statistically better performance than both the base AERMOD Model and the other LOWWIND Beta Options present in AERMOD. Such a finding contradicts the EPA's statement in the TSD. One commenter (0329-UARG) stated that this level of demonstration should suffice to support the use of those techniques in modeling.

EPA's Response:
The commenter is referring to technical information provided by EPA as part of its proposed regulatory revisions to the *Guideline on Air Quality Models* (July 2015). Such information was provided to the public in considering the merits of incorporating the LOWWIND3 and adjusted u* Beta options in the regulatory version of AERMOD. At this time, the EPA is still considering the merits of these options as part of that separate rulemaking process, and these final designations are not taking final action on that pending rulemaking or pre-judging it in any way. Therefore, pending completion of that rulemaking, for these designations we have explained that it is necessary to gain approval of any regulatory application of an alternative model (i.e. AERMOD with use of LOWWIND3 and/or adjusted u* Beta options) as noted in Section 3 of the SO2 Modeling TAD (first draft available in May 2013). This will ensure that the use of a Beta option in any specific area designation is appropriate, based on its own facts. The use of AERMOD Beta options was discussed at the 11th Modeling Conference in August 2015 and subsequently clarified in a December 10, 2015 memorandum. The Beta options are also discussed in Section 2 of the latest version of the SO2 Modeling TAD (February 2016). While a state or other entity conducting modeling may have run AERMOD using the Beta options, for these designations EPA will only consider modeling analyses that used the current regulatory

defaults within AERMOD to predict SO_2 design values, unless an entity seeking to use a Beta option has gained formal approval to use an alternative model.

Comment: Two commenters (0296-FirstEnergy, 0299-OH Utilities Group) stated that Ohio EPA met the recommendation of Appendix W, Section 3.2.2. The commenters stated there is peer-reviewed work published with respect to LOWWIND3 in Paine et.al. (2015).

Another two commenters (0310-NAAQS Implementation Coalition, 0329-UARG) requested that the EPA reopen comment on the Appendix W Proposal for the limited purpose of allowing the public to respond on the record to critical evaluations of LOWWIND3 not available prior to the close of the comment period. One commenter ((0310-NAAQS Implementation Coalition) stated that, in their review of the Appendix W Proposal's official docket, there is just one comment containing specific concerns with the performance of LOWWIND3, while a substantial majority of the comments were generally supportive. The commenter ((0310-NAAQS Implementation Coalition) also stated that the EPA's rationale for not including LOWWIND3 is unclear. According to the commenter, the EPA proposed to include LOWWIND3 in the Appendix W Proposal because it "improve[s] model performance," but then the EPA refused to use LOWWIND3 for SO_2 designations on grounds that it has not been demonstrated to "statistically improve [model] performance."

EPA's Response:
EPA does not consider the request to reopen the public comment period for its proposed revisions to the *Guideline on Air Quality Models* (July 2015) to be within the scope of these final designations. Pending completion of that rulemaking, we have explained that for these designations it is necessary to gain approval of any regulatory application of an alternative model (i.e. AERMOD with use of LOWWIND3 and/or adjusted u* Beta options) as noted in Section 3 of the SO2 modeling TAD (first draft available in May 2013). The use of AERMOD beta options was discussed at the 11th Modeling Conference in August 2015 and subsequently clarified in a December 10, 2015, memorandum. They are also discussed in Section 2 of the latest version of the SO2 Modeling TAD (February 2016). The information brought forward by the commenter would need to be formally considered on a case-by-case basis as part of that process. While a state may have run AERMOD using the Beta options, EPA will only consider modeling analyses that used the current regulatory defaults within AERMOD to predict SO_2 design values for the designations due July 2, 2016, unless an entity seeking to use a Beta option has gained formal approval to use an alternative model.

Comment: One commenter (0329-UARG) explained (pdf pages 5-6 of their comment letter) that AECOM's recent analyses provide added justification for accepting modeling with the LOWWIND3 option as the basis for an attainment designation. The commenter noted that the EPA explains its reluctance to accept use of the low wind speed options with AERMOD on the basis that it is still reviewing "a number of public comments specific to the LOWWIND3 beta options." According to the commenter however, only one comment by Sierra Club provided a substantive critique of low wind speed options with AERMOD. The commenter attached a report, prepared by Christopher Warren and others at AECOM Environment, which refutes the

concerns expressed in Sierra Club's comments and provides further evidence that the LOWWIND3 option improves AERMOD's performance.

EPA's Response:

Pending completion of the separate rulemaking referenced by commenter, the EPA has explained that for these designations it is necessary to gain approval of any regulatory application of an alternative model (i.e. AERMOD with use of LOWWIND3 and/or adjusted u* Beta options) as noted in Section 3 of the SO2 modeling TAD (first draft available in May 2013). The use of AERMOD beta options was discussed at the 11th Modeling Conference in August 2015 and subsequently clarified in a December 10, 2015, memorandum. They are also discussed in Section 2 of the latest version of the SO2 Modeling TAD (February 2016). The information brought forward by the commenter would need to be formally considered on a case-by-case basis as part of that process. While a state may have run AERMOD using the Beta options, EPA will only consider modeling analyses that used the current regulatory defaults within AERMOD to predict SO_2 design values for the designations due July 2, 2016, unless an entity seeking to use a Beta option has gained formal approval to use an alternative model.

Comment: One commenter (0329-UARG) stated there are no legal barriers to EPA's reliance on the ADJ_U* and LOWWIND3 options. Commenter stated that section 3.2.2 of the current regulatory Guideline gives responsibility for approving an alternative model solely to the Regional Office. Commenter also stated that the Guideline does not apply to modeling for initial designations because it applies only to State Implementation Plan revisions for existing sources and to new source reviews. Commenter stated that the Modeling Technical Assistance Document (TAD) specifies that it does not impose binding and enforceable requirements or obligations and is not final agency action.

EPA's Response:
The Beta options are currently being considered as part of an ongoing separate rulemaking process and have not been formally adopted into the regulatory version of AERMOD, and pending completion of that rulemaking EPA considers the use of AERMOD run with non-regulatory options as an alternative model. EPA has discussed the process to gain approval of alternative models in previous responses to comments in this section. The necessity for this EPA approval of any regulatory application of an alternative model is described in Section 3 of the SO_2 Modeling TAD (first draft available May 2013) and the Beta options are discussed in the latest version of the TAD (February 2016). Furthermore, the use of AERMOD Beta options was discussed at the 11th Modeling Conference in August 2015 and subsequently clarified in a December 10, 2015, memorandum. In order to obtain EPA approval to run AERMOD using the Beta options, the alternative model demonstrations must first be submitted to the EPA Region for approval and concurred with by the Model Clearinghouse. At this time, EPA will only consider the modeling analyses that used the current regulatory defaults within AERMOD to predict SO_2 design values for the designations due July 2, 2016, unless an entity seeking to use a Beta option has gained formal approval to use an alternative model consistent with this longstanding process. Where such a request has not been submitted and approved for a specific case, EPA cannot rely upon modeling results that use these Beta options in making its final designation. The SO_2

Modeling TAD is EPA guidance regarding compliance with the relevant statutory and regulatory requirements, and the TAD recommends that the designations modeling should rely upon the principles and techniques in the *Guideline*, Appendix W.

Comment: One commenter (0332-Sierra Club) stated that ADJ_U* and LOWWIND3 have been shown to decrease model performance and accuracy and should not be relied on by EPA. Commenter provided an attachment to their comments (Exhibit 6) which describes the flaws commenter sees in these options. Commenter stated that use of these options would cripple the efficacy of AERMOD, and lead to significant under-prediction of air pollution impacts. Commenter stated that, to the extent that states or industry submit modeling analyses that incorporate use of these options, EPA should reject them as being inconsistent with regulatory guidance and for the identified issue of inaccuracies flowing from their use. Commenter stated that, in instances where states or industry submit modeling incorporating these options and accompany it with information purporting to justify use of the non-regulatory default configuration of AERMOD, EPA should look very closely at the submissions, the submissions should only be considered as a sensitivity analysis, and the submissions should be accompanied by modeling performed according to EPA's guidance using the regulatory default configuration of AERMOD.

EPA's Response:
EPA clearly described the necessity for approval of any regulatory application of an alternative model in Section 3 of the SO_2 modeling TAD (first draft available in May 2013). Furthermore, the use of AERMOD beta options was discussed at the 11th Modeling Conference in August 2015 and subsequently clarified in a December 10, 2015, memorandum and also discussed in Section 2 of the latest version of the modeling TAD (February 2016). In order to obtain EPA approval to run AERMOD using the Beta options, the alternative model demonstrations must first be submitted to the EPA Region for approval and concurred with by the Model Clearinghouse. At this time, EPA will only consider modeling analyses that used the current regulatory defaults within AERMOD to predict SO_2 design values for the designations due July 2, 2016, unless an entity seeking to use a Beta option has gained formal approval to use an alternative model consistent with this longstanding process. In either granting or not granting such approval, the EPA is not taking final action with respect to the pending separate Appendix W rulemaking, or pre-judging its future outcome in any way.

2. Modeling to determine attainment status

Comment: One commenter (0332-Sierra Club) stated that dispersion modeling is a rigorously verified method for evaluating impacts on the SO_2 NAAQS, and has a lengthy and court-validated history as an appropriate tool for use in designations. Commenter provided a detailed discussion (pdf pages 6-9 of commenter's letter) to support their position that aerial dispersion modeling is the appropriate approach to ascertaining attainment status under the SO_2 NAAQS. Commenter provided several references to support their position, including: the final SO_2 NAAQS Rule, *Implementation of the 1-Hour SO_2 NAAQS Draft White Paper for Discussion,* EPA's 1994 SO_2 Guideline Document, Respondent's Opposition to Motion of the State of North Dakota for a Stay of EPA's 1-Hour Sulfur Dioxide Ambient Standard Rule (attached to

commenter's letter as Exhibit 1), and Sheldon Meyers Memorandum re Section 107 Designation Policy Summary (April 21, 1983) (attached to commenter's letter as Exhibit 2). Commenter also cited several court cases and statements from EPA staff (attached to commenter's letter as Exhibits 3 and 4) to further support their position. Commenter stated that EPA's practice that all nitrogen dioxide, fine particulate matter and SO_2 PSD increment compliance verification analyses are performed with air dispersion modeling demonstrates that modeling is a technically superior approach for ascertaining impacts on NAAQS.

One commenter (0332-Sierra Club) stated that AERMOD accurately models medium-to-large SO_2 sources—even with conditions of low wind speed, the use of off-site meteorological data, and variable weather conditions. Commenter stated that AERMOD has been tested and performs very well during conditions of low wind speeds (see Exhibit 5 attached to commenter's letter). Commenter stated that EPA's use of air dispersion modeling and AERMOD in particular was upheld in the context of a recent CAA section 126 petition for resolution of cross-state impacts.

One commenter (0332-Sierra Club) stated that, by modeling a source to ascertain its impact on the NAAQS, regulators are simultaneously determining how much emissions need to be reduced to avoid causing NAAQS exceedances. Commenter stated that using modeling for and from designations purposes in nonattainment SIP preparation thus can help states and EPA avoid the chronic problem of late NAAQS implementation. Commenter stated it can also be a powerful tool in enabling EPA to prepare federal implementation plans for states that have failed to prepare their SIPs. Commenter stated the EPA should make clear to the states that they can and must submit nonattainment SIPs by the required deadline, and that if not, EPA will use the modeling before it to generate and promulgate federal implementation plans, and will do so far sooner than the expiration of the two-year deadline the Clean Air Act affords EPA.

EPA's Response: EPA appreciates the commenters' support of the use of dispersion modeling for *SO_2 NAAQS* designations. In this action the EPA is not addressing the submission of nonattainment SIPs or federal implementation plans; comments related to these separate issues are out of scope of the current final action.

3. AERMOD FLAGPOLE option

Comment: One commenter (0332-Sierra Club) stated that flagpole receptors are part of the regulatory default AERMOD configuration and their use can only make modeling results more relevant. Commenter stated that, since people breathe through their noses and mouths, not through their shoes and socks, modeling impacts at face-height instead of at foot-height is better practice. Commenter stated this is in part why air monitoring sensors are likewise not placed directly on the ground. Commenter stated that criticisms of Sierra Club modeling on the basis of the use of the FLAGPOLE option should be disregarded.

EPA's Response:

EPA disagrees with the statement that the flagpole receptors are part of the regulatory default AERMOD configuration. While not a Beta option, the flagpole receptors must be specified and therefore are not part of the default options. EPA has stated in Section 4.2 of the SO_2 NAAQS

Designations Modeling Technical Assistance Document (TAD) that the use of flagpole receptors is not necessary. The TAD also states that Appendix W does not specify receptors be placed at levels other than ground level for comparison to the NAAQS. The use of flagpole receptors in specific cases of modeling is addressed in the Technical Support Documents (TSDs) for those areas, and/or in responses to comments on the EPA's intended designations for those areas.

B. Designation Categories

Comment: Two commenters (0301-IN Municipal Power, 0302-Duke Energy) supported an "attainment" rather than "attainment/unclassifiable" designation and stated that section 107 of the Clean Air Act does not appear to provide for the "attainment/unclassifiable" designation category. Also see section IX.A. Gibson County.

One commenter (0329-UARG) stated the CAA does not provide for an unclassifiable/attainment designation and it does not authorize EPA to add to additional designations to those specified in the Act. Commenter stated that, where EPA finds that an area attains the NAAQS, the Agency has no basis for designating it anything other than attainment. Commenter stated that making an attainment designation is important because it conveys to those in the area or who may be considering moving to the area that air quality there meets health-based standards. Commenter stated that a designation of unclassifiable/attainment does not convey that same message and should not be used.

EPA's Response: In the March 20, 2015, guidance memo (Steve Page, Director EPA-OAQPS to Regional Air Directors, Updated Guidance for Area Designations for the 2010 Primary Sulfur Dioxide National Ambient Air Quality Standard) and the August 21, 2015, Data Requirements Rule final rule Federal Register notice the EPA stated that, while states have and may continue to submit designations recommendations identifying areas as ''attainment,'' the EPA expects to continue its traditional approach, where appropriate, of using a designation category of ''unclassifiable/attainment'' for areas that the EPA determines meet the 2010 SO_2 NAAQS. In this action, the EPA is using the designation category of "unclassifiable/attainment" for areas that are meeting the 2010 SO_2 NAAQS, and is using the category ''unclassifiable'' for areas where the EPA cannot determine based on available information whether the area is meeting or not meeting the NAAQS or where the EPA cannot determine whether the area contributes to a violation in a nearby area. The EPA is not establishing an additional designations category with this long-standing approach. The EPA also disagrees that the use of the continued unclassifiable/attainment designation conveys the negative message claimed by the commenter, as the designation is premised on an EPA finding that the area is meeting the NAAQS. In any event, the EPA notes that there is no difference in terms of resulting regulatory burden between and unclassifiable, unclassifiable/attainment, or attainment designation, so the use of the unclassifiable/attainment term imposes no injury on any party.

Comment: One commenter (0319-Entergy Arkansas) supported the EPA's position that in all legal and practical circumstances the designation of "unclassifiable/attainment" is the same as a designation of "attainment" under the Clean Air Act, and, therefore, it triggers no additional mandates or other data requirements. Commenter stated this follows from EPA's repeated

statements documenting its traditional use of "unclassifiable/attainment" for those areas that the Agency determines meet the NAAQS (e.g., 80 FR 51052, 51084).

EPA's Response: The EPA appreciates the commenters support of our interpretation of the legal and practical consequences associated with a designation of "unclassifiable/attainment." For areas that the EPA is designating unclassifiable/attainment in this final action, this determination is based on the finding that the area is meeting the 2010 SO_2 NAAQS.

C. Monitoring

Comment: One commenter (0328-Luminant) stated the EPA's proposal is unlawful and should not be finalized, in part, because EPA has consistently supported monitoring over modeling for NAAQS designation purposes and its new approach here is inconsistent with the statute, regulations, and EPA's prior practice. Commenter stated the EPA should utilize monitoring data, not modeling data if it is going to overturn the State of Texas' recommended designations in favor of its own designations. Commenter supported the TCEQ's (0294-TCEQ) position that monitoring data is necessary to accurately characterize actual air quality for attainment and nonattainment designations. Commenter stated the EPA has been clear that monitoring data is preferred for NAAQS designations, and EPA's offer for states to use modeling for the SO_2 NAAQS was simply intended to provide states with another option. Commenter stated that modeling was intended to provide an opportunity for states to avoid the cost and resources associated with siting, installing, and maintaining monitors where the state preferred to rely on modeling. Commenter stated the EPA's new approach here to *require* modeling and rely solely on that data for designations is inconsistent with the statute and EPA's prior practice.

One commenter (TX Response) stated, when modeling and monitoring data conflict, courts have acknowledged that actual air monitoring data is superior to modeling data so long as the monitor is sufficient to accurately represent the area in question. *E.g., Republic Steel Corp. v. Castle,* 621F.3d797, 805 (6th Cir.1980); *PPG Industries, Inc. v. Castle,* 630 F.3d 462, 46'7-68 (6th Cir. 1980).

One commenter (TX Response) stated that a designation of nonattainment has serious consequences to industry, the economy of an area, its citizens, and the state. Commenter stated that nonattainment designations should only be made based on data from 40 CFR Part 58 compliant (regulatory) monitoring showing a violation of the standard. Commenter stated that using modeling to determine a nonattainment designation could result in major capital expenditures for industry to address an issue that may not be an actual problem. Commenter stated that air modeling analyses are a useful tool in determining the impact of a new or modified facility for permitting purposes but not for predicting future design values to demonstrate attainment of NAAQS. Commenter stated that, because of the magnitude of the potential impact areas may face due to a nonattainment designation, such a determination should be based only on real world, monitored data, and not predicted values subject to the limitations and flaws of a model.

EPA's Response: The EPA is not at this time taking final action to designate the areas in Texas that had been proposed as nonattainment designations, and will address comments regarding those areas at a later date. However, as a general matter, the EPA maintains our previous position for the reasons delineated in the preamble to the final rule of the 2010 SO_2 NAAQS rulemaking, the February 2013 Strategy Paper, and in the proposed and final SO_2 Data Requirements Rule for why both air quality modeling and ambient monitoring are appropriate tools for characterizing ambient air quality for purposes of informing decisions to implement the SO_2 NAAQS, including designation determinations. The EPA's reliance on modeling to assess SO_2 air quality status, even in the face of conflicting monitoring, has been judicially affirmed. See, e.g., *Montana Sulphur & Chemical Company v. EPA*, 666 F.3d 1174, 1185 (9th Cir. 2012). Moreover, it has long been the EPA's practice to rely upon appropriate modeling when issuing designations under SO_2 NAAQS. See, e.g., 43 FR 8962 (March 3, 1978), 43 FR 40416 (September 11, 1978), 43 FR 40502 (September 12, 1978). EPA has also explained the importance of using modeling information for source-oriented pollutants such as SO_2 in cases where existing monitors do not adequately characterize peak ambient concentrations, See, e.g., Memorandum from Sheldon Myers, Director, EPA Office of Air Quality Planning and Standards, to Regional Office Air Division Directors, "Section 107 Designation Policy Summary," April 21, 1983. All designation determinations made by the EPA in this final action are based on the EPA's complete and thorough review and analysis of all available information, as described in each area's final technical support document in this docket.

Comment: One commenter (0329-UARG) suggested that an area conducting monitoring consistent with EPA Guidance should be designated unclassifiable and allowed to complete three years of monitoring as long as monitored air quality remains below the NAAQS. Commenter stated that awaiting monitoring results would also be appropriate if modeling studies have produced differing predictions regarding NAAQS compliance. Commenter stated that providing the opportunity for such monitoring could allow an area in which monitoring demonstrates that the 1-hour SO_2 standard is attained to avoid costly implementation measures.

EPA's Response: As stated further above, the EPA maintains the position that both air quality modeling and ambient monitoring are appropriate tools for characterizing ambient air quality for purposes of informing decisions to implement the SO_2 NAAQS, including designation determinations. In response to the commenter's suggestion that designations should await future completion of three years of monitoring, the EPA notes that in the case of the designations subject to the court's order to designate certain areas by July 2, 2016, the agency does not have the discretion to await the results of future monitoring.

Comment: One commenter (0328-Luminant) explained (pdf pages 36-42) why they believe AERMOD is not a reliable approach for NAAQS designations, and cannot substitute for the preferred option of monitoring.

EPA's Response: As stated further above, the EPA is not at this time taking final action to designate the areas in Texas addressed by the commenter, and will respond to comments on those areas at a later time. However, as a general matter, the EPA maintains the position that both air quality modeling and ambient monitoring are appropriate tools for characterizing

ambient air quality for purposes of informing decisions to implement the SO2 NAAQS, including designation determinations.

D. Consent Decree

Comment: One commenter (0328-Luminant) stated that the Consent Decree must be read consistently with the May 13, 2014 Data Requirements Rule (DRR). Commenter stated the EPA cannot now contravene its own regulations and deprive states of the opportunity to utilize monitoring data collected under (or alongside) the rule to inform designations by interpreting the Consent Decree in a manner that forecloses monitoring. Commenter stated that, if EPA interprets the Consent Decree to impermissibly require the use of modeling where sufficient monitoring data is not available, even though monitoring data will be available in the future, its interpretation would effectively abrogate the CAA's unclassifiable designation and EPA's prior statements regarding the importance of the use of monitoring data.

One commenter (0328-Luminant) stated that, if read to effectively force a certain designation through the application of over-predictive modeling alone, the Consent Decree would not only contravene the CAA, it would also modify the DRR in a manner that deprives the regulated community of its ability to meaningfully comment, which is an improper rulemaking and impermissible under the Administrative Procedure Act. Commenter stated that the proposed DRR, for instance, did not say the rule's procedures allowing states until 2020 to issue recommendations for areas relying on monitoring did not apply to areas with "large" (as defined specifically for this purpose for the first time in the Consent Decree) stationary sources.

One commenter (0328-Luminant) stated the Consent Decree imposes impermissible legal obligations on states that did not consent to the decree.

EPA's Response: The commenter's objections to the consent decree, as well as the commenter's views regarding the Data Requirements Rule, are beyond the scope of this final rule issuing designations. Moreover, as explained above, the EPA is not at this time taking final action to designate the areas on which the commenter submitted comments, and will respond to those comments at a later time. However, the EPA notes that our authority for this final action is CAA Section 107(d), which required the EPA to promulgate designations for the 2010 SO_2 NAAQS no later than three years after the date of promulgation of this NAAQS, as the EPA exercised the available one year extension available under the Act. As stated further above, the EPA maintains our previous position that both air quality modeling and ambient monitoring are appropriate tools for characterizing ambient air quality for purposes of informing decisions to implement the SO_2 NAAQS, including designation determinations. Furthermore, the Consent Decree referenced by commenter sets dates the EPA must act by, not dates that the EPA must wait until to act. Additionally, the SO_2 Data Requirements Rule does not restrict the EPA's CAA Section 107(d) authority, but rather will provide future air quality data developed by air agencies that may be used by the EPA in future actions to evaluate areas' air quality under the 2010 SO_2 NAAQS, including area designations and redesignations, as appropriate. Nothing in either the consent

Final Draft Technical Support Document

New York
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 D.C. District Court for the Northern California District 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 New York because 2 emission sources meet the conditions of the court's order.

New York submitted updated recommendations on September 18, 2015. Table 1 below lists New York's recommendations and identifies the county/counties in New York that the EPA is designating in order to meet the July 2, 2016 court-ordered deadline. This final designation is 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 – [State]'s Recommended and the EPA's Final Designations

Area	New York's Recommended Area Definition	New York's Recommended Designation	EPA's Final Area Definition	EPA's Final Designation
Erie - Niagara, NY	Erie County, Niagara County, Cattaraugus County	Attainment	Erie County, Niagara County (Erie-Niagara)	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.[1] 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 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 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 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

[1] 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. Areas in New York are not subject to this clause.

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 New York. However, there are 2 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 New York'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 under 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 Erie - Niagara, NY

Introduction

The Erie - Niagara, NY area contains 2 stationary sources 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 Huntley Generating Station emitted 2,716 tons of SO_2 in 2012, and had an emissions rate of 0.70 lbs SO_2/mmBTU. In addition, the Somerset Generating Station emitted 5,653 tons of SO_2 in 2012, and had an emissions rate of 0.53 lbs SO_2/mmBTU. As of March 2, 2015, these stationary sources 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 these facilities by July 2, 2016.

In its February 16, 2016 submission, New York recommended that the area surrounding the Huntley and Somerset Generating Stations, specifically the entirety of Erie, Niagara, and Cattaraugus Counties, be designated as 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. After careful review of the State's assessment, supporting documentation, and all available data, the EPA does not agree entirely with the State's recommendation for the area with respect to Cattaraugus County, but nevertheless is designating Erie and Niagara Counties as unclassifiable/attainment.

On February 16, 2016, the EPA notified New York that we intended to designate the Erie - Niagara, NY area as unclassifiable/attainment, based on our view that those counties were meeting the NAAQS. Additionally, we informed New York that our intended boundaries for the unclassifiable/attainment area consisted of Erie and Niagara Counties which contain the Huntley and Somerset Generating Stations. The Huntley Generating Station is located in the northwestern portion of Erie County 10.5 km north -northwest of Buffalo, NY. The plant is on the shore of the Niagara River in the Town of Tonawanda, NY and can be seen in Figure 1 below. In addition, the Somerset Generating Station is located in Niagara County approximately 35 miles north-northeast of Buffalo, NY and 50 miles west-northwest of Rochester, NY. The plant is on the south shore of Lake Ontario and can be seen in Figure 2. Also included in the figures are nearby emitters of SO_2, the State's recommended area for the attainment designation, and the EPA's intended unclassifiable/attainment designation for the area.

Figure 1: The Huntley Generating Station, Erie County, New York

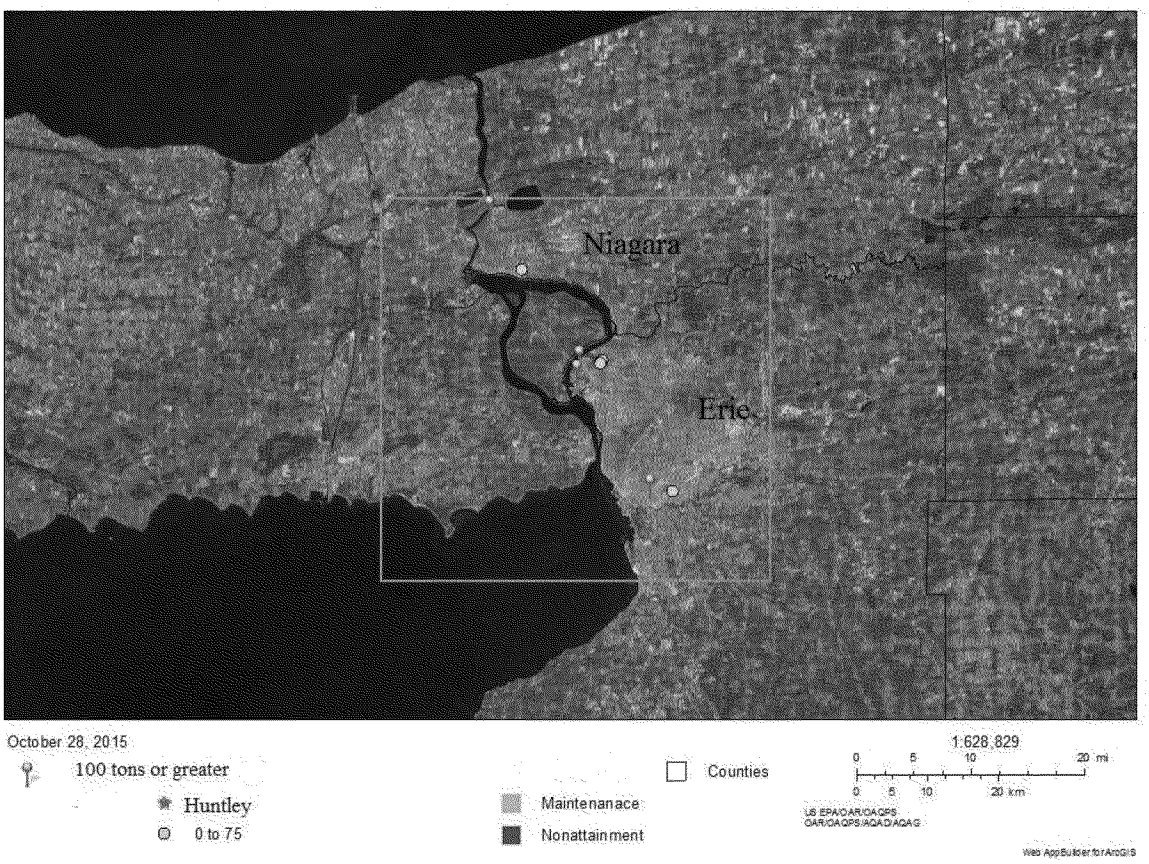
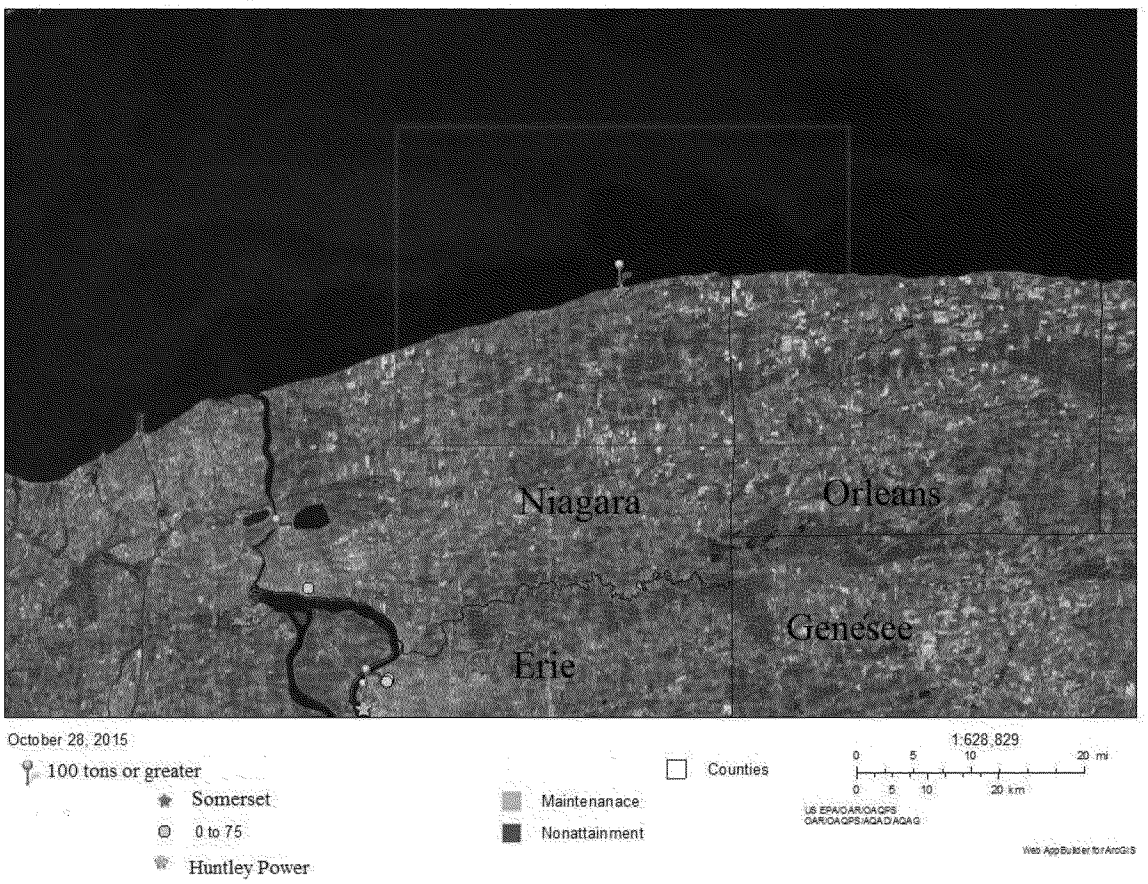

Niagara
Erie
October 28, 2015
100 tons or greater
Huntley
0 to 75
Maintenanace
Nonattainment
Counties
1:628,829
0 5 10 20 mi
0 5 10 20 km
US EPA/OAR/OAQPS
OAR/OAQPS/AQAD/AQAG
Web AppBuilder for ArcGIS

Figure 2: The Somerset Generating Station, Niagara County, New York



Our intended designation and associated boundaries were based on, among other things all available information, including historical ambient air quality monitoring, air dispersion modeling results performed by the State, and other supporting materials found in the State's updated recommendation. Evaluating all current information, the EPA does not believe that there are any stationary sources in any other neighboring county that contribute to a violation of the 2010 SO_2 NAAQS in Erie County or Niagara County. Erie County and Niagara County are meeting the NAAQS. F urthermore, sources in those counties are not expected to contribute to a violation of the NAAQS in any neighboring county in New York. As a result, the EPA believes that our unclassifiable/attainment area, consisting of Niagara County and Erie County in New York State, is comprised of clearly defined legal boundaries, and we find these

boundaries to be a suitably clear basis for defining our unclassifiable/attainment area.

Detailed rationale, analyses, and other information supporting our intended designation for this area can be found in the draft technical support document for New York, and this document along with all others related to this rulemaking can be found in Docket ID EPA-HQ-OAR-2014-0464. The EPA is explicitly incorporating and relying upon the analyses and information presented in the draft 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 draft document.

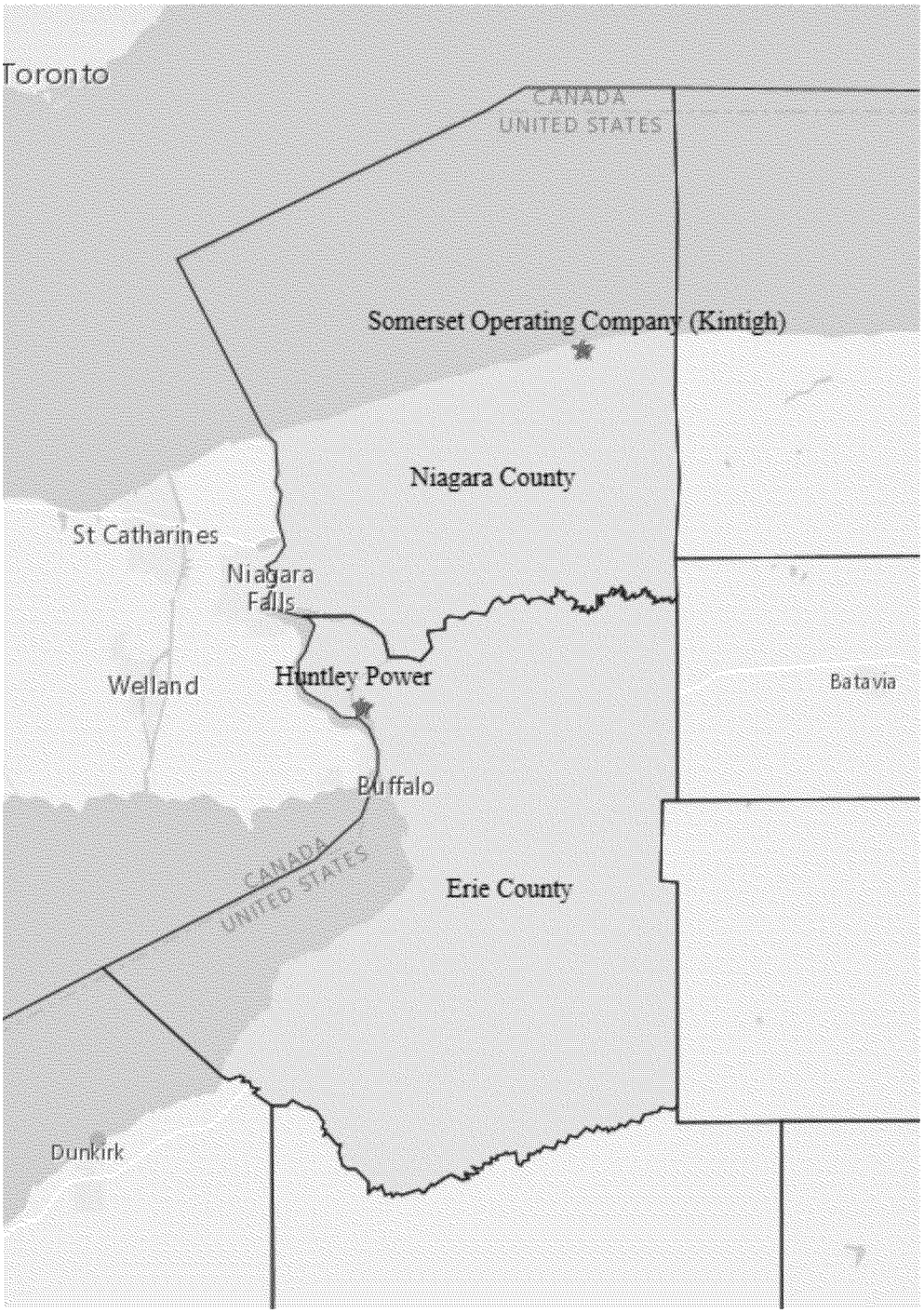
Assessment and Conclusion

In our February 16, 2016 notification to New York regarding our intended unclassifiable/attainment designation for the Erie - Niagara, NY 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).

Subsequent to our February 16, 2016 notification, the EPA did not receive any additional information from New York, nor did we receive any public comments regarding our intended unclassifiable/attainment designation for the Erie - Niagara, NY area.

Therefore, based on the information available to the EPA at this time including the analyses performed for the purposes of the draft technical support document and in 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 EPA is concludes that the Erie - Niagara, NY area is meeting the NAAQS, and is designating the area as unclassifiable/attainment for the 2010 SO_2 NAAQS. The boundaries for this unclassifiable/attainment area consist of Erie and Niagara Counties, and are shown in figure 3 below. Also included in the figure are nearby emitters of SO_2 and New York's recommended area.

Figure 3: The EPA's final unclassifiable/attainment area: Erie - Niagara, NY



At this time, our final designation for the state only applies to this area. Consistent with the court-ordered schedule, the EPA will evaluate and designate all remaining undesignated areas in New York by either December 31, 2017, or December 31, 2020.

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) must designate areas as either "unclassifiable," "attainment," or "nonattainment" for the 2010 one-hour sulfur dioxide (SO_2) primary national ambient air quality standard (NAAQS). The CAA defines a nonattainment area as one that does not meet the NAAQS or that contributes to a violation in a nearby area. An attainment area is defined as any area other than a nonattainment area that meets the NAAQS. Unclassifiable areas are defined as those that cannot be classified on the basis of available information as meeting or not meeting the NAAQS.

Texas submitted updated recommendations on September 18, 2015, ahead of a July 2, 2016, deadline for the EPA to designate certain areas established by the U.S. District Court for the Northern District of California. 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. Table 1 below lists Texas's recommendations and identifies the counties or portions of counties in Texas that the EPA intends to designate by July 2, 2016 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 Intended Designations

Area	Texas' Recommended Area Definition	Texas' Recommended Designation	EPA's Intended Area Definition	EPA's Intended Designation
Atascosa County, Texas	Atascosa County	Unclassifiable/ Attainment	Same as State's Recommendation	Unclassifiable/ Attainment
Fort Bend County, Texas	Fort Bend County	Unclassifiable/ Attainment	Same as State's Recommendation	Unclassifiable
Freestone-Anderson Counties, Texas	Freestone County	Unclassifiable/ Attainment	Portions of Freestone and Anderson Counties. The area bound by the following UTM coordinates* (NAD 83 Datum, UTM Zone 14): X Y 762752, 3540333 762752, 3510333 789753, 3510333 789753, 3540333	Nonattainment

			*EXCLUDING portions of Navarro County that fall within this UTM-based boundary.	
Goliad County, Texas	Goliad County	Unclassifiable/ Attainment	Same as State's Recommendation	Unclassifiable/ Attainment
Lamb County, Texas	Lamb County	Unclassifiable/ Attainment	Same as State's Recommendation	Unclassifiable/ Attainment
Limestone County, Texas	Limestone County	Unclassifiable/ Attainment	Same as State's Recommendation	Unclassifiable/ Attainment
McLennan County, Texas	McLennan County	Attainment	Same as State's Recommendation	Unclassifiable
Milam County, Texas	Milam County	Unclassifiable/ Attainment	Same as State's Recommendation	Unclassifiable
Potter County, Texas	Potter County	Unclassifiable	Same as State's Recommendation	Unclassifiable
Robertson County, Texas	Robertson County	Unclassifiable/ Attainment	Same as State's Recommendation	Unclassifiable/ Attainment
Rusk-Gregg-Panola Counties, Texas	Rusk County	Unclassifiable/ Attainment	Portions of Rusk, Gregg, and Panola Counties. The area bounded by the following UTM coordinates* (NAD 83 Datum, UTM Zone 15): X Y 336067, 3585315 336067, 3558314 361568, 3558314 361568, 3585315 * EXCLUDING the portion of Harrison County that fall within this UTM-based boundary.	Nonattainment

Titus County, Texas	Titus County	Unclassifiable/ Attainment	Portions of Titus County. The area bounded by the following UTM Coordinates* (NAD 83 Datum, UTM Zone 15): X Y 302329, 3666971 302329, 3660770 313530, 3660770 313530, 3666971 * EXCLUDING portions of Camp County, Texas that fall within this UTM-based boundary.	Nonattainment

Background

On June 3, 2010, the EPA revised the primary (health based) SO_2 NAAQS by establishing a new one-hour standard at a level of 75 parts per billion (ppb) which is attained when the three-year average of the 99th percentile of one-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.[1] 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 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 Clean Air Act requires that not later than one year after promulgation of a new or revised NAAQS, state governors must submit their recommendations for designations and boundaries to 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 will promulgate the designations that it deems

[1] 40 CFR 50.4(e) provides that the two prior primary NAAQS will no longer apply to an area one 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. There are no currently designated nonattainment areas in Texas under the previous SO_2 NAAQS, and no part of the state is subject to a SIP Call under the prior NAAQS.

appropriate. If a state or tribe disagrees with the EPA's intended designations, they are given an opportunity within the 120 day period to demonstrate why any proposed modification is inappropriate.

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 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 consent decree schedule.

According to the consent decree, the EPA must complete the remaining designations on a schedule that contains 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 states 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).

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 I-X. 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

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 released its most recent versions of 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) in December 2013.

Based on ambient air quality data collected between 2012 and 2014, no monitored violations of the 2010 SO_2 NAAQS have been recorded in any undesignated part of Texas.[2] However, there are twelve 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 draft technical support document, the EPA discusses its review and technical analysis of Texas's recommendations for the areas that we must designate. The EPA also discusses any intended modification 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 three year average of the 99th percentile of the annual distribution of daily maximum one-hour average concentrations. See 40 CFR 50.17.
2) Design Value - a statistic computed according to the data handling procedures of the NAAQS (in 40 CFR part 50 Appendix T) that, by comparison to the level of the NAAQS, indicates whether the area is violating the NAAQS.
3) 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 would reflect considerations of state recommendations and all of the information discussed in this document. The EPA's decision would be based on all available information including the most recent 3 years of air quality monitoring data, available modeling analysis, and any other relevant information.
4) Designated unclassifiable area – an area which the EPA cannot determine based on all available information whether or not it meets the 2010 SO_2 NAAQS.
5) 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 would be based on all available information including the most recent 3 years of air quality monitoring data, available modeling analysis, and any other relevant information.
6) Modeled violation – a violation based on air dispersion modeling.
7) Recommended attainment area – an area a state or tribe has recommended that the EPA designate as attainment.

[2] For designations based on ambient air quality monitoring data that violates the 2010 SO_2 NAAQS, the consent decree directs the EPA to evaluate data collected between 2013 and 2015. Absent complete, quality assured and certified data for 2015, the analyses of applicable areas for the EPA's intended designations will be informed by data collected between 2012 and 2014. States with monitors that have recorded a violation of the 2010 SO_2 NAAQS during these years have the option of submitting complete, quality assured and certified data for calendar year 2015 by April 19, 2016 to the EPA for evaluation. If after our review, the ambient air quality data for the area indicates that no violation of the NAAQS occurred between 2013 and 2015, the consent decree does not obligate the EPA to complete the designation. Instead, we may designate the area and all other previously undesignated areas in the state on a schedule consistent with the prescribed timing of the consent decree, i.e., by December 31, 2017, or December 31, 2020.

8) Recommended nonattainment area – an area a state or tribe has recommended that the EPA designate as nonattainment.
9) Recommended unclassifiable area – an area a state or tribe has recommended that the EPA designate as unclassifiable.
10) Recommended unclassifiable/attainment area – an area a state or tribe has recommended that the EPA designate as unclassifiable/attainment.
11) 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 the Coleto Creek Power Station in Goliad County, Texas

Introduction

The Goliad 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). As of March 2, 2015, this stationary source had not met the specific requirements for being "announced for retirement." Specifically, in 2012, the Coleto Creek Power Station (Coleto Creek station) emitted 16,218 tons of SO_2, and had an emissions rate of 0.615 lbs SO_2/mmBTU. Pursuant to the March 2, 2015 consent decree, the EPA must designate the area surrounding the facility by July 2, 2016.

In its submission, Texas recommended that the area surrounding the Coleto Creek station, specifically the entirety of Goliad 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. The state's assessment and characterization were performed following the notion that any areas without appropriately cited and qualified monitors should be considered unclassifiable or attainment based on lack of evidence that a violation of the NAAQS has occurred and the results of air dispersion modeling software, i.e., AERMOD, analyzing actual emissions. After careful review of the state's assessment, supporting documentation, and all available data, the EPA agrees that the area is attaining the standard, and intends to designate Goliad County as unclassifiable/attainment. The EPA did receive additional modeling information from industry for the area surrounding Coleto Creek Power Station, as discussed in the "Other Relevant Information" section of this document. While the industry modeling is also supportive of an unclassifiable/attainment designation, our intended designation for Goliad County is based on the modeling submitted by the state on the basis that this analysis was more consistent with current EPA modeling guidance, including the Modeling TAD.

The Coleto Creek station is located in southern Texas in the eastern portion of Goliad County. As seen in Figure 1 below, the facility is located approximately 24 km southwest of Victoria, Texas. The station is located near the Coleto Creek Reservoir. Figure 1 also shows the Goliad County boundary, which is the state's and EPA's recommended area for the unclassifiable/attainment designation. Figure 2 below shows Coleto Creek station and other nearby, large emitters of SO_2.

Figure 1. The EPA's intended designation for
Coleto Creek Power Station

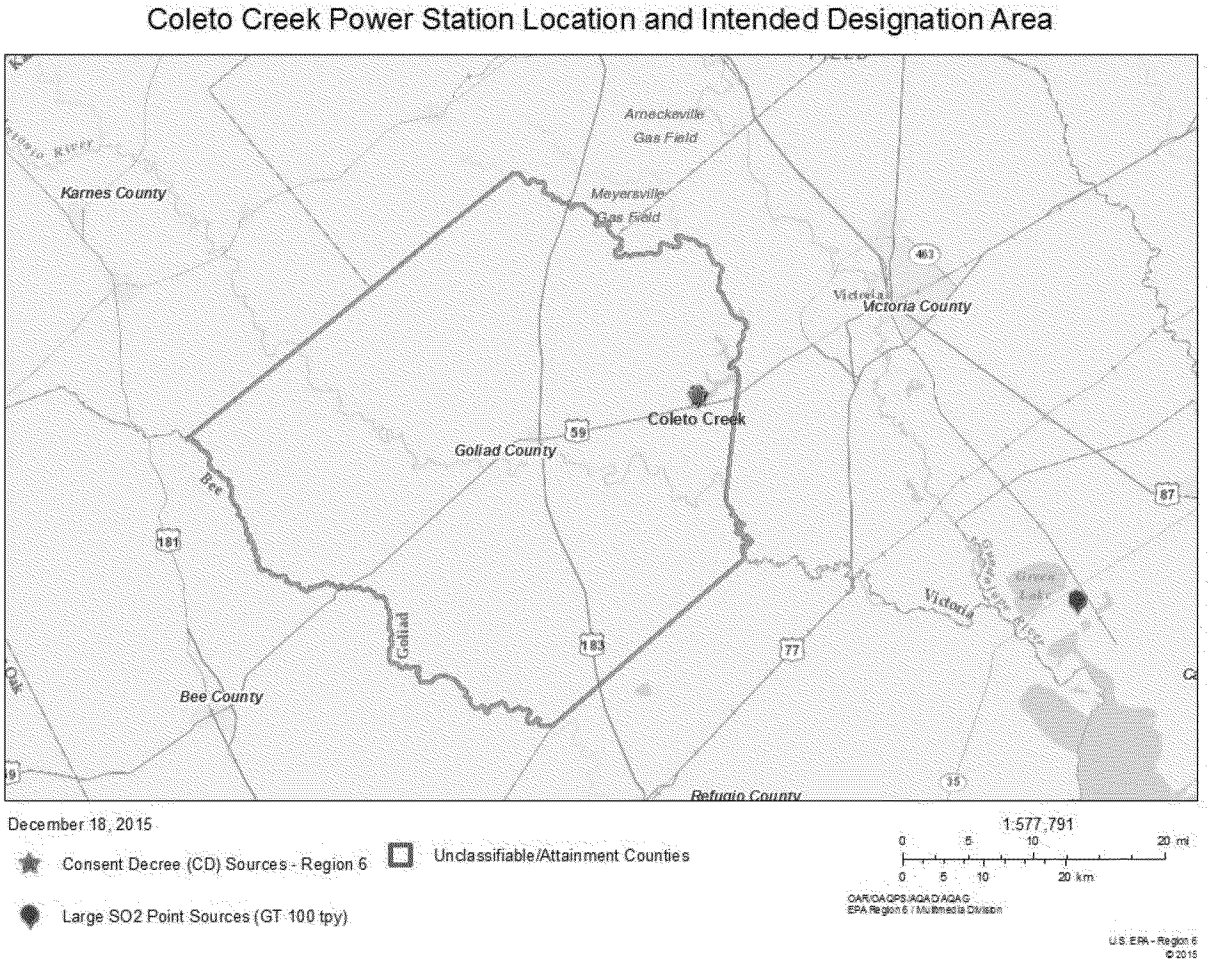
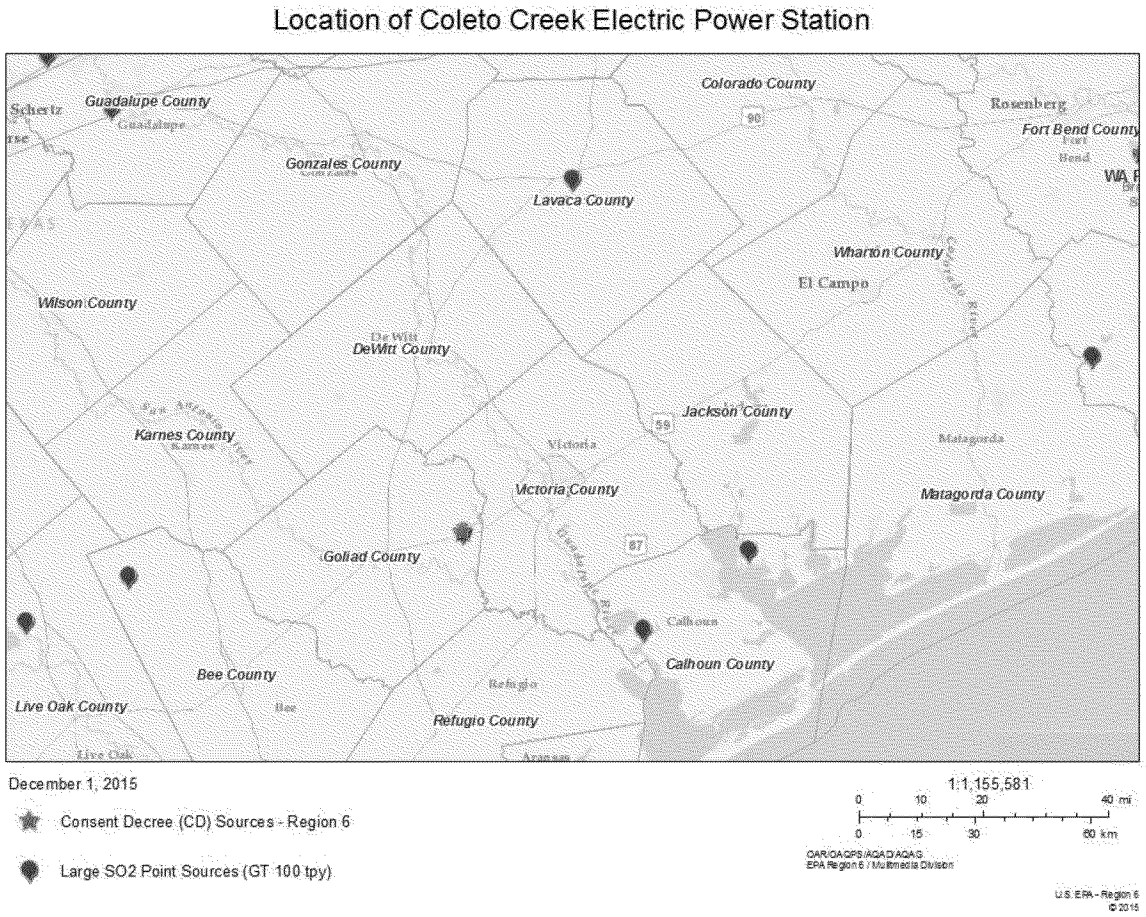


Figure 2: Coleto Creek Power Station and Nearby Large SO_2 Emitters



The discussion and analysis that follows below will reference the state's use of the Modeling TAD, the EPA's assessment of the state's modeling in accordance with the Modeling TAD, and the factors for evaluation contained in the EPA's March 20, 2015 guidance, as appropriate.

Detailed Assessment

Air Quality Data

This factor considers the SO_2 air quality monitoring data in the area surrounding Coleto Creek station. The facility is located in Goliad County; however, there are no ambient air quality monitors located in this county. The table below shows information related to the monitors located closest to the site. The design values were confirmed through the EPA's 2014 design value report for SO_2.[3] While the monitored data is instructive, the distance of the monitors from Coleto Creek station likely limits its value in this analysis and cannot be considered representative of the area around Coleto Creek station for

[3] The design value report for SO_2, as well as each of the other NAAQS, can be found at this link: http://www3.epa.gov/airtrends/values.html

designations purposes. More specifically, the absence of a violating monitor when considering the distance from the facility is not a sufficient technical justification to rule out that an exceedance of the 2010 SO_2 NAAQS may occur in the immediate vicinity of the facility.

Table 1: Available Air Quality Data for the Area Closest to the Coleto Creek Power Station

County	Air Quality Systems (AQS) Monitor ID	Monitor Location	Distance to Coleto Creek station (km)	2012 – 2014 SO_2 Design Value (ppb)
Nueces	48-355-0026	Corpus Christi Tuloso	103.5	4
Nueces	48-355-0032	Corpus Christi Huisache	103.0	7
Nueces	48-355-0025	Corpus Christi West	107.7	0

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

The state 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, 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, the state determined that it was most appropriate to run the model in rural mode.

In their submittal, the state indicated that the source is relatively isolated and based on our review of aerial photography of the area surrounding the facility provided as part of the state's recommendation, the determination to run the model in rural mode appears appropriate. The figure below provide an aerial image of the area surrounding the Coleto Creek station.

Figure 3: Aerial Image of Area Surrounding Coleto Creek Power Station

Modeling Parameter: Area of Analysis (Receptor Grid)

The EPA believes that a reasonable first step towards characterization of air quality in the area surrounding the Coleto Creek 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. For the Coleto Creek area, the state did not include any other emitters of SO_2 within their analysis. The state determined that this was the appropriate approach in order to adequately characterize air quality from the facility.

The State modeled a grid of 50 km around the Coleto Creek facility.[4] 50 kilometers is the nominal distance for SO_2 accuracy in AERMOD. The state determined that this was the appropriate distance in order to adequately characterize 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. Based on our review of the area of analysis, the jurisdictional boundaries relied upon in our intended designation, and the proximity of nearby large SO_2 emitters to the Coleto Creek facility, we agree that the grid is appropriate to characterize the air quality in the vicinity of the facility. The grid receptor spacing for the area of analysis chosen by the state is as follows:

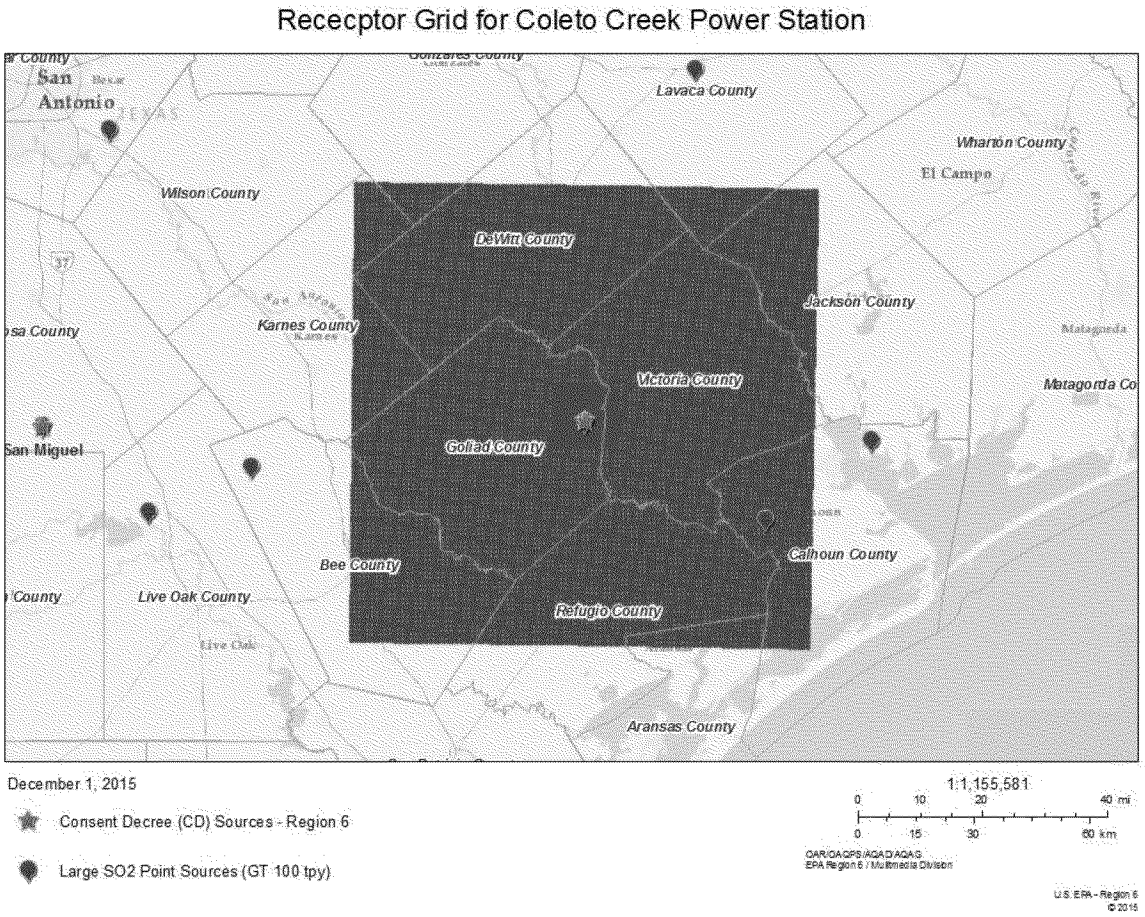
- 100 meter grid from the property fence line Coleto Creek station out to approximately 1 km,
- 500 meter grid from the property fence line Coleto Creek station out to approximately 5 km, and
- 1000 meter (1 km) grid from the property fence line Coleto Creek station out to approximately 50 km.

The receptor network contained 12,801 receptors, and the network covered all of Goliad County, the majority of Victoria County, the southern portion of Dewitt County, western portions of Jackson and Calhoun Counties, the northern portions of Aransas and Refugio Counties, and the eastern portions of Bee and Karnes Counties.

Figure 4 shows the state's chosen area of analysis surrounding the Coleto Creek station, as well as receptor grid for the area of analysis. Receptors were placed throughout the modeled area, which is a conservative approach and consistent with EPA guidance. The impacts of the area's geography and topography will follow in the appropriate section.

[4] AERMOD is a Gaussian Plume Air Dispersion Model, 50km is the useful distance to which most steady-state Gaussian plume models are considered accurate for setting emission limits per SCRAM guidance.

Figure 4: Receptor Grid for the Coleto Creek Power Station Area of Analysis



Modeling Parameter: Source Characterization

The state characterized the source within the area of analysis in accordance with the best practices outlined in the Modeling TAD. Specifically, the state used actual stack heights in conjunction with actual emissions. The state also correctly characterized the source's building layout and location, as well as the stack parameters, e.g., exit temperature, exit velocity, location, and diameter. Where appropriate, the AERMOD component BPIPPRIME was used to assist in addressing building downwash.

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 TAD does provide for the flexibility of using allowable emissions in the form of the most recently permitted (referred to as PTE or allowable) emissions rate.

The EPA believes that 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 the use of AERMOD's variable emissions factors keyword EMISFACT. When choosing one of these methods, the EPA believes that detailed throughput, operating schedules, and emissions information from the impacted source 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."

As previously noted, the state included Coleto Creek station and no other emitters of SO_2 in the area of analysis. No other sources beyond the area of analysis were determined by the state to have the potential to cause significant concentration gradient impacts within the area of analysis. The state reviewed nearby SO_2 emitters and determined that based on the magnitude of emissions and proximity of those emitters to Coleto Creek station, the nearby sources are not expected cause significant concentration gradients and would be represented via background monitor concentrations. We reviewed nearby large SO_2 emitters located within the area of analysis that were not explicitly included in the state's modeling analysis. Seadrift Coke LP is located in the southeastern portion of the area of analysis approximately 46 km from Coleto Creek station and emitted 400 tons of SO_2 based on 2011 National Emissions Inventory (NEI) data. Based on the magnitude of emissions from Seadrift Coke LP, its proximity to Coleto Creek station, and the magnitude of modeled impacts from Coleto Creek station in the vicinity of Seadrift (less than 20 □g/m^3), we do not expect the inclusion of this emission source to impact the assessment of air quality in the Goliad County area of analysis or our intended designation

Table 2: Actual SO_2 Emissions Between 2012 – 2014 from the Coleto Creek Power Station.

Company ID	Facility Name	SO_2 Emissions (tons per year)		
		2012	2013	2014
GDF Suez Energy, NA	Coleto Creek Power Station	16,218	14,344	16,942

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

UNITED STATES COURT OF APPEALS FOR THE SEVENTH CIRCUIT

Everett McKinley Dirksen United States Courthouse
Room 2722 - 219 S. Dearborn Street
Chicago, Illinois 60604

Office of the Clerk
Phone: (312) 435-5850
www.ca7.uscourts.gov

ORDER

December 18, 2013

Before

JOEL M. FLAUM, *Circuit Judge*

ILANA DIAMOND ROVNER, *Circuit Judge*

DAVID F. HAMILTON, *Circuit Judge*

No.: 13-2959	AMERENENERGY RESOURCES GENERATING COMPANY, Petitioner v. ENVIRONMENTAL PROTECTION AGENCY, et al., Respondents
Originating Case Information:	
Agency Case No: EPA-HQ-OAR-2012-0233 Environmental Protection Administration	

The following is before the court:

1. **RESPONDENT EPA'S MOTION TO DISMISS OR TRANSFER**, filed on October 28, 2013, by counsel for the respondent.

2. **PETITIONER'S RESPONSE TO EPA'S MOTION TO DISMISS OR TRANSFER**, filed on November 18, 2013, by counsel for the petitioner.

3. **REPLY IN SUPPORT OF EPA'S MOTION TO DISMISS OR TRANSFER**, filed on December 3, 2013, by counsel for the respondent,

IT IS ORDERED that the motion is **GRANTED**. The Petition for Review is **TRANSFERRED** to the United States Court of Appeals for the D.C. Circuit. The clerk of this court shall transmit a copy of all materials filed in this Petition for Review, along with a copy of this order and the record on appeal, to that court.