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BY FEDERAL EXPRESS AND EMAIL

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Re: Petition for Partial Reconsideration of Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan Requirements for Texas; Final Rule; 82 Fed. Reg. 45,481 (Sept. 29, 2017); EPA-HQ-OAR-2016-0598; FRL-9968-46-OAR

Under Section 307(d)(7)(B) of the Clean Air Act ("CAA" or "the Act"), 42 U.S.C. § 7607(d)(7)(B), National Parks Conservation Association ("NPCA"), and Sierra Club (collectively, "Petitioners") respectfully petition the Administrator of the Environmental Protection Agency ("the Administrator" or "EPA") to reconsider certain aspects of EPA's final rule captioned Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan Requirements for Texas, 82 Fed. Reg. 45,481 (Sept. 29, 2017) [hereinafter, the "New BART Exemption Rule"]. Specifically, Petitioners object to: (1) EPA's conclusion that the Cross State Air Pollution Rule ("CSAPR" or the "Transport Rule") continues to be a valid alternative to the installation of source-specific "best available retrofit technology" ("BART") under the Regional Haze Rule despite the withdrawal of Texas from the trading program; (2) EPA's entirely new emissions shifting analysis, which the agency relies on to demonstrate that the Transport Rule remains better than BART; and (3) the agency's continued reliance on its 2012 modeling despite substantive flaws in EPA's emissions shifting analysis and failing to demonstrate that the Transport Rule continues meet the regulatory criteria for a valid BART alternative.

As discussed below, each objection is "of central relevance to the outcome of the rule," 42 U.S.C. § 7607(d)(7)(B), in that they demonstrate that the final rule is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." *Id.* § 7607(d)(9)(A). Moreover, the EPA interpretations, assumptions and plans that render the New BART Exemption Rule

arbitrary and capricious appeared for the first time in either the final rule published on September 29, 2017, or in EPA's subsequent October 17, 2017 Regional Haze rule for BART-eligible sources in Texas. Thus, the grounds for the objections raised in this petition "arose after the period for public comment," which ended on January 9, 2017. *Id.* § 7607(d)(7)(B). Because the grounds for the objections raised in this petition arose after the period for public comment and are of central relevance to EPA's finding in the New BART Exemption Rule that the Transport Rule remains better than BART despite the withdrawal of the Texas from the trading program, the Administrator must "convene a proceeding for reconsideration" of portions of the rule, and "provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed." *Id.* § 7607(d)(7)(B).[1]

BACKGROUND

In 2011, EPA promulgated the Transport Rule, which required 28 states in the eastern U.S., including Texas, to curb power plant emissions of sulfur dioxide ("SO_2") and nitrogen oxides ("NO_x") that cross state lines and significantly contribute to violations of ozone and fine-particle standards in other states. 76 Fed. Reg. 48,208 (Aug. 8, 2011). Promulgated under the Clean Air Act's "good neighbor" provision, 42 U.S.C. § 7410(a)(2)(D)(I), the Transport Rule allowed sources to trade emission allowances with other sources in the same or different states, although it constrained emission shifting somewhat by setting emission ceilings or budgets for each state. *Id.* at 48,348. For each state regulated by the Transport Rule, EPA contemporaneously promulgated a federal implementation plan ("FIP") allocating that State's emission budget among its in-state electricity generating units ("EGUs"). *Id.* at 48,271, 48,284-87.

To implement the Clean Air Act's separate visibility protection mandate and its implementing regulation, the Regional Haze Rule, the states (or EPA where a state fails to act) must submit implementation plans that ensure "reasonable progress" toward eliminating human-caused visibility impairment at national parks and wilderness area by 2064. 40 C.F.R. § 51.308(d)(1), (d)(3). A key element of both the Clean Air Act and the Regional Haze Rule is the requirement to install "best available retrofit technology" ("BART") at many of the nation's oldest sources. 42 U.S.C. § 7491(b)(2)(A); 40 C.F.R. § 51.308(e). Under the Regional Haze Rule, states were required to submit implementation plans addressing BART and ensuring reasonable progress toward the national visibility goal by December 2007. 40 C.F.R. § 51.308(b).

In 2012, EPA published a BART Exemption Rule (or "Better-than-BART" Rule), 77 Fed. Reg. 33,643 (June 7, 2012), which exempted EGUs covered by EPA's Transport Rule trading program from meeting source-specific BART requirements under the Regional Haze Rule. EPA justified that 2012 BART Exemption Rule with computer modeling purporting to show that the Transport Rule satisfied both criteria of the agency's test for a valid BART alternative—namely, that when compared to EPA's "presumptive" BART emission limits, implementation of the Transport Rule (1) does not cause visibility to decline in any Class I area, and (2) there is an overall improvement in visibility, determined by comparing the average differences between

[1] Because judicial review of the rule is available by the filing of a petition for review within sixty days of the publication date—that is, by November 28, 2017—the grounds for the objections arose "within the time specified for judicial review." *Id.*

BART and the alternative over all affected Class I areas. As part of that modeling analysis, EPA also conducted a qualitative "Sensitivity Analysis," which purported to demonstrate that the Transport Rule remained a valid "better-than-BART" alternative despite increases in the emission budgets for Texas and Georgia.[2]

In 2015, however, the D.C. Circuit held that EPA's sulfur dioxide and annual nitrogen oxide Transport Rule budgets for several states, including Texas, were invalid. *EME Homer City Generation v. EPA*, 795 F.3d 118, 138 (D.C. Cir. 2015) ("*Homer City II*"). As a result, EPA determined it would have to re-evaluate whether those states' power plants would still be subject to the Transport Rule, and accordingly, whether EGUs in those states could continue to rely on the BART Exemption Rule as an alternative to source-specific BART for EGUs. In response to that remand, in September 2016, EPA issued a final rule updating the Transport Rule to address states' good neighbor obligations with regard to the 2008 ozone NAAQS, and establishing new ozone-season nitrogen oxide budgets for several states, including Texas, to address those states' good neighbor obligations with regard to the 2008 8-hour ozone NAAQS. 81 Fed. Reg. 74,504, 74,576 (Oct. 26, 2016). [3]

On June 27, 2016, EPA issued a memorandum providing Texas with the option of voluntarily adopting the Transport Rule pollution budgets as a way of avoiding the source-specific emission limits associated with Best Available Retrofit Technology.[4] Unlike the other three states to which EPA had extended the offer, Texas declined to adopt the Transport Rule's requirements into state law.[5]

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[2] U.S. EPA, Memorandum, Sensitivity Analysis Accounting for Increases in Texas and Georgia Transport Rule State Emissions Budgets (May 29, 2012), EPA-HQ-OAR-2011-0729-0323.

[3] EPA did not establish new ozone-season nitrogen oxide budgets for Florida, North Carolina, and South Carolina because the agency determined that those state EGUs no longer have downwind ozone impacts that require participate in the Transport Rule ozone-season nitrogen oxide trading program. In addition, EPA did not adopt revised sulfur dioxide budgets for Alabama, Georgia or South Carolina. However, each of those states, except Florida, have committed to requiring in-state EGUs to participate in the Transport Rule trading program for either annual nitrogen oxide or sulfur dioxide emissions to address particulate matter transport obligations. 81 Fed. Reg. 78,954, 78,956-57 (Nov. 10, 2016). Petitioners continue to object to EPA's reliance on those states' voluntary commitment to comply with the Transport Rule as a way of prolonging the ability of any states to rely on the better-than-BART rule to avoid source-specific BART for EGUs. Florida is the only state originally covered by the Transport Rule for nitrogen oxide emissions for which all such coverage is ending as a result of the EPA's set of actions to address the *Homer City II* remand. *Id*.

[4] Mem. from J. McCabe, Acting Assistant Administrator, EPA to Regional Air Division Directors, Re: The USEPA's Plan for Responding to the Remand of the Cross-State Air Pollution Rule Phase 2 SO_2 Budgets for Alabama, Georgia, South Carolina, and Texas (June 27, 2016) [EPA Docket No. EPA-HQ-OAR-2016-0598-0003]; *see also* 81 Fed. Reg. at 78,959 n.35.

[5] The D.C. Circuit also remanded the Transport Rule sulfur dioxide emission budgets for Alabama, Georgia, and South Carolina, each of which have now proposed or adopted SIP revisions that would require in-state EGUs to continue to comply with comparably stringent

On November 10, 2016, EPA published a proposed rule captioned "Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan Requirements for Texas," which included two primary components. First, in response to the D.C. Circuit's decision in *Homer City II*, EPA proposed to withdraw the FIP provisions that require affected Texas and three other states' EGUs to participate in the Transport Rule trading programs for annual emissions of sulfur dioxide. 81 Fed. Reg. at 78,960. Because 2014 air quality modeling showed that Texas no longer contributed significantly to downwind nonattainment for the 1997 annual $PM_{2.5}$ NAAQS in any state, EPA proposed to find that it lacked authority under the "good neighbor" provision of the Clean Air Act, 42 U.S.C. § 7410(a)(2)(D)(i)(I), to require emission reductions from Texas and other states' EGUs to protect downwind air quality.

Second, despite the withdrawal of Texas from the annual sulfur dioxide and nitrogen oxide emission trading program and other changes in the Transport Rule, EPA proposed to find, based on a qualitative analysis conducted in 2012, that the Transport Rule would continue to result in greater reasonable progress toward natural visibility under the Regional Haze program. 81 Fed. Reg. at 78,962. EPA's rationale for finding that Transport Rule remained "better than BART" for the remaining Transport Rule states despite the withdrawal of Texas's sulfur dioxide and nitrogen oxide emission budgets depended on the assumption that eligible Texas EGUs would have to be treated as subject to source-specific BART for sulfur dioxide emissions instead of being treated as subject to Transport Rule sulfur dioxide trading requirements. According to EPA, treating Texas EGUs as subject to BART for sulfur dioxide instead of Transport Rule sulfur dioxide requirements would have "reduced projected SO_2 emissions by between 127,300 tons and approximately 177,800 tons per year more than CSAPR, thereby improving projected air quality in [the CSAPR + BART everywhere else] scenario relative to projected air quality in both the Nationwide BART scenario and the base case scenario." *Id.* at 78,963. EPA further explained that, as a result of those source-specific BART reductions:

> ***it is a logical conclusion that the modeled visibility improvement in the CSAPR + BART elsewhere scenario would have been even larger relative to the other scenarios than what was modeled in the 2012 analytic demonstration as reflected in the CSAPR-Better-than-BART rule***. There is therefore no need to do any new modeling or more complicated sensitivity analysis. ***The lower SO2 emissions in Texas would clearly have led to more visibility improvement on the best and worst visibility days in the nearby Class I areas***. Since the ''original'' CSAPR + BART-elsewhere scenario passed both prongs of the better-than-BART test (compared to the Nationwide BART scenario and the base case scenario), a modified CSAPR + BART-elsewhere scenario without Texas in the CSAPR region would without question also have passed both prongs of the better-than-BART test. In fact, if the modeling analysis had reflected the withdrawal of FIP provisions for Texas EGUs proposed in this action, the ***EPA expects that CSAPR implementation would have passed the better-than-BART test even more easily,***

Transport Rule sulfur dioxide and and annual nitrogen oxide requirements. 81 Fed. Reg. at 78,962.

again supporting the use of CSAPR implementation as a BART alternative for all states whose EGUs participate in the CSAPR trading programs.[6]

Petitioners did not (and do not) oppose EPA's proposed removal of Texas from annual sulfur dioxide and nitrogen oxide emission limits under the Transport Rule, but filed detailed comments opposing EPA's continued reliance on an outdated 2012 analysis to justify continued exemption of EGUs from source-specific BART in Transport Rule states for several reasons.[7]

On January 4, 2017, after the publication of the proposed rule in this case, EPA published a separate notice of proposed rulemaking to satisfy Texas's long-overdue BART obligations under the Clean Air Act. 82 Fed. Reg. 912 (Jan. 4, 2017). That proposal found, among other things, that in light of the D.C. Circuit's decision invalidating Texas's Transport Rule emission budgets in *Homer City II*, and because Texas declined to voluntarily participate in the Transport Rule, , the state's EGUs could not continue to rely on the Transport Rule to satisfy the BART requirements.[8] Instead, after conducting detailed, source-specific five-factor BART analyses, EPA proposed sulfur dioxide emission limits for eighteen coal-fired and seven gas-fired EGUs in Texas. 82 Fed. Reg. at 946-47 (Tables 33 and 34).

EPA concluded that based on the installation of new scrubbers, coal-fired EGUs in Texas could cost-effectively meet sulfur dioxide emission limits between 0.04 and 0.06 lb/mmBTU, *see id.* at 939-46—significantly lower than the 0.15 lb/mmBTU "presumptive" sulfur dioxide limit that EPA had relied on in concluding that the New BART Exemption Rule was "Better than BART." Similarly, for units with existing scrubbers, EPA projected that it would be cost effective for the units to update their scrubbers to meet sulfur dioxide emission limits between 0.11-0.12 lb/mmBTU. *See id.* EPA supported the proposed rule with technical and legal documentation of its analysis of each of the five factors used to determine "best available retrofit technology," as required in the statute, 42 U.S.C. § 7491(g)(2), and applicable regulations, 40 C.F.R. § 51.308(e)(1)(ii)(A). EPA projected that its Texas BART proposal would reduce harmful sulfur dioxide emissions by 194,000 tons per year, a "larger reduction than projected" under the Transport Rule.[9] EPA has not refuted the technical documentation supporting its conclusions that these units could achieve those emission limits.

On September 29, 2017, EPA issued the final New BART Exemption Rule at issue here. 82 Fed. Reg. 45,481. As proposed, EPA finalized the withdrawal of the FIP provisions requiring affected Texas EGUs to participate in Transport Rule trading programs for annual emissions of sulfur dioxide and nitrogen oxides. Also as proposed, EPA finalized its finding that the original

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[6] 81 Fed. Reg. at 78,963-64 (citations omitted; emphasis added).

[7] *See Comments by Earthjustice et al.* (submitted Jan. 9, 2017) [EPA Docket No. EPA-HQ-OAR-2016-0598].

[8] According to EPA, the Transport Rule remains a valid substitute for nitrogen oxide BART because Texas EGUs are subject to ozone-season nitrogen oxide emission limits under the Transport Rule Update. 81 Fed. Reg. at 78,957-58.

[9] EPA, Technical Support Document for the Texas Regional Haze BART Federal Implementation Plan at 2 (Dec. 2016)[EPA Docket No. EPA-R06-OAR-2016-0611-0004] ("BART FIP TSD").

2012 Transport Rule "better-than-BART" analysis remained valid, and thus, there was no need to revise or revisit the Transport Rule better than BART rule. 82 Fed. Reg. at 45,491. EPA reiterated that the removal of Texas from Transport Rule for sulfur dioxide would have resulted in an even larger reduction in Texas sulfur dioxide emissions than modeled in the original Transport Rule scenario because Texas EGUs would be subject to source-specific sulfur dioxide BART instead of being subject to the Transport Rule. Indeed, EPA projected that Texas EGUs' sulfur dioxide emissions would be at least 127,300 tons lower under BART than under the Transport Rule. As a result, EPA concluded that the removal of Texas from the Transport Rule would have "strengthened" the 2012 analytic demonstration because the only material change from the sensitivity analysis would be even greater emission reductions and accompanying visibility benefits resulting from source-specific sulfur dioxide BART for Texas sources.

However, in the final rule, EPA also admitted for the first time that Texas's removal from the Transport Rule could result in a potential shift of 22,300 to 53,000 tons per year of sulfur dioxide allowances to other states.[10] EPA explained that the reason for this shift in emissions was that in the original Transport Rule scenario, Texas EGUs were projected to emit at least 22,300 tons of sulfur dioxide in excess of the state budget. This would have been possible through the use of allowances purchased from EGUs in other sulfur dioxide Group 2 states: Alabama, Georgia, Kansas, Minnesota, Nebraska, and South Carolina. But because Texas is no longer part of the Transport Rule trading program, Texas EGUs would no longer purchase those allowances from the other states, and the EGUs in those other states could potentially use those allowances to increase their own sulfur dioxide emissions. Accounting for that shift in emissions, EPA estimated the overall net projected reduction in sulfur dioxide emissions by removing Texas from the Transport Rule and requiring source-specific BART would be approximately 105,000 tons per year, instead of the 127,300 tons described in the original proposal. Despite the potential increase in emissions from other Transport Rule states, however, EPA concluded that any associated reduction in visibility "would be more than offset by greater visibility improvement in Class I areas near Texas" as a result of source-specific sulfur dioxide BART.[11]

Less than one month later, however, on October 17, 2017, EPA published a Texas BART Rule,[12] in which the agency reversed course and declined to adopt source-specific emission limitations for BART-eligible Texas EGUs under the Regional Haze Rule. Although the final New BART Exemption Update rule was explicitly predicated on the assumption that Texas EGUs *would be subject to* individual BART emission limits instead of the Transport Rule

[10] 82 Fed. Reg. at 45,493/3.
[11] *Id*. at 45,494/1.
[12] Promulgation of Air Quality Implementation Plans; State of Texas; Regional Haze and Interstate Visibility Transport Federal Implementation Plan, 82 Fed. Reg. 48,324 (Oct. 17, 2017). Sierra Club and NPCA contend that the October 17 action does not constitute a valid final action sufficient to comply with the Consent Decree in *NPCA v. EPA*, No. 11-1548 (D.D.C.), and have asked the Court in that case to order EPA to promulgate a final action as required by that decree. *See* Mot. to Enforce Decree, *NPCA v. EPA*, No. 11-1548 (D.D.C. filed Oct. 13, 2017) (ECF Doc. 103). In citing the October 17 action here, NPCA and Sierra Club do not in any way concede its legality or sufficiency, and that it constitutes final action.

budgets, EPA issued an alternative plan that discarded source-specific BART limits for Texas EGUs in favor of an entirely *new intrastate* emissions trading scheme. Contrary to its proposed and final New BART Exemption Rule, EPA's published BART trading scheme for Texas does *not* include source-specific emission limits. Rather than reducing Texas EGUs' sulfur dioxide emissions to levels at least 105,000 tons lower than they would have been under CSAPR, the new intrastate trading program allows Texas EGUs to emit *more* sulfur dioxide than would have been allowed under the Transport Rule budgets for Texas. Coupled with the approximately 22,300 to 53,000 tons per year of sulfur dioxide increase in emissions that EPA now admits is a result from removing Texas from the interstate trading program,[13] the Texas BART trading scheme plus the removal of Texas from CSAPR now results in at least 149,600 tons more per year of sulfur dioxide than EPA estimated in the *proposed* New BART Exemption Rules—thereby raising the likelihood of decreased visibility in affected Class I areas, and a worse visibility performance overall of the Transport Rule relative to BART.[14]

EPA MUST CONVENE A RECONSIDERATION PROCEEDING AS TO THE NEW BART EXEMPTION RULE

Under the Clean Air Act, the Administrator "shall convene a proceeding for reconsideration of the rule" if the petitioner demonstrates: (1) that it was impracticable to raise the objection during the comment period or the grounds for the objection arose after the close of the public comment period; and (2) that the objections are of central relevance to the outcome of the rule. 42 U.S.C. § 7607(d)(7)(B). As discussed in Section I, *infra*, it was impracticable to raise the issues in this reconsideration request during the public comment period because EPA did not make the information or its rationale available until after the issuance of the rule. Moreover, EPA's New BART Exemption Rule is predicated on the assumption that Texas EGUs would be subject to source-specific BART. EPA's separate BART Rule for Texas—issued three weeks *after* the final New BART Exemption Rule in this case—renders that assumption invalid. Because it was impossible for Petitioners in January 2016 to "divine the agency's unspoken thoughts" regarding its 2017 plan for addressing BART for Texas EGUs, it was impracticable for Petitioners to raise the objections within the comment period. *See CSX Transp., Inc. v. Surface Transp. Bd.*, 584 F.3d 1076, 1080 (D.C. Cir. 2009) (a rule violates the notice requirement where "interested parties would have had to 'divine [the agency's] unspoken thoughts,' because the final rule was surprisingly distant from the proposed rule.") (quoting *Int'l Union, United Mine Workers of Am. v. Mine Safety & Health Admin.*, 407 F.3d 1250, 1259–60 (D.C.

[13] 82 Fed. Reg. at 45,493/3.

[14] In the proposed New BART Exemption Rule, EPA anticipated (based on outdated, presumptive BART emission limits) that source-specific BART for Texas EGUs would result in a reduction of at least 127,300 tons per year. 81 Fed Reg. at 78,963. As a result of the Texas BART trading scheme, however, that reduction has vanished. Meanwhile, the exclusion of Texas from the Transport Rule trading scheme will result in at least 22,300 excess tons of pollution from states like Alabama and Georgia. Relative to the proposed New BART Exemption Rule, the total additional and unaccounted for emission increase is at least 149,600 tons per year.

Cir.2005) (alteration in original)).

Moreover, as discussed in Section II, *infra*, the objections below are of central relevance to the outcome of the rule and EPA's conclusion that the Transport Rule remains better than BART despite the removal of Texas from the trading program. Specifically, petitioners object to: (1) EPA's conclusion that the Transport Rule remains better than BART despite the withdrawal of Texas from the trading program because that conclusion is predicated on the installation of source-specific BART at Texas EGUs—an assumption that is now unsupportable due to EPA's subsequent BART FIP for Texas; (2) EPA's entirely new emissions shifting analysis, which the agency relies on to demonstrate that the Transport Rule remains better than BART, but which EPA unlawfully failed to present to the public for comment; and (3) the agency's continued reliance on its 2012 modeling despite substantive flaws in EPA's emissions shifting analysis and failing to demonstrate that the Transport Rule continues to meet the regulatory criteria for a valid BART alternative.

Because both the Clean Air Act's prerequisites for reconsideration are met, 42 U.S.C. § 7607(d)(7)(B), EPA "lack[s] discretion not to address the claimed errors." *North Carolina v. EPA*, 531 F.3d 896, 927 (D.C. Cir. 2008).

I. It Was Impracticable for Petitioners to Raise the Issues in this Reconsideration Petition Because the Proposed Rule Failed to Disclose or Address Key Changes in Factual and Legal Circumstances.

EPA must provide a reasonable opportunity for public examination, evaluation and comment on any proposed rule and any underlying, supporting information, assumptions or conclusions. More specifically, the Clean Air Act requires a "detailed explanation" of "(A) the factual data on which the proposed rule is based; (B) the methodology used in obtaining the data and in analyzing the data; and (C) major legal interpretations and policy considerations underlying the proposed rule," 42 U.S.C. § 7607(d)(3), and, after issuance of the proposed rule, that EPA affirmatively update the rulemaking docket as new information becomes available. 42 U.S.C. § 7607(d)(4)(B)(i); *see also Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 518-19 (D.C. Cir. 1983) (Clean Air Act requires a "detailed explanation of its reasoning at the 'proposed rule' stage as well [as in the final rule].").

These notice requirements are designed "(1) to ensure that agency regulations are tested via exposure to diverse public comment, (2) to ensure fairness to affected parties, and (3) to give affected parties an opportunity to develop evidence in the record to support their objections to the rule and thereby enhance the quality of judicial review." *Int'l Union,* , 407 F.3d at 1259-60. "It is not consonant with the purpose of a rule-making proceeding to promulgate rules on the basis of inadequate data, or on data that, [to a] critical degree, is known only to the agency." *Am. Radio Relay League, Inc. v. FCC*, 524 F.3d 227, 237 (D.C. Cir. 2008) (quoting *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 393 (D.C. Cir. 1973) (alteration in original)).

As discussed in further detail below, EPA violated these principles in two key respects, and, as a result, precluded meaningful public comment on the assumptions and rationales that go to the heart of the agency's final rule. 42 U.S.C. § 7607(d)(7)(B). First, EPA's conclusion that

the Transport Rule remains better than BART despite the withdrawal of Texas from the trading program and other changes is predicated on the assumption that Texas EGUs would be subject to source-specific BART. Although EPA has admitted that the removal of Texas from the Transport Rule trading system would increase emissions from other states that "might lead to violations of the analytic criteria that the EPA relied on to find that [the Transport Rule] qualifies as a BART alternative,"[15] EPA concluded that any such emission increase would be "more than offset" by treating Texas EGUs as subject to sulfur dioxide BART.[16] But EPA can no longer credibly rely on those assumed emission reductions because the agency's subsequent October 17, 2017 Texas BART FIP does *not* include *any* source-specific emission limits, and instead relies upon an entirely new intrastate trading program that allows Texas EGUs to increase their emissions over the Transport Rule budgets. Thus, the New BART Exemption Rule relies on a key factual assumption that is no longer valid, and of which commenters could not have been aware as of the deadline for public comments. Moreover, EPA did not publish this new alternative intrastate emission trading scheme for BART-eligible sources in Texas until after the agency published the New BART Exemption Rule at issue. Because EPA did not notify the public of its intent to abandon source-specific BART limits for Texas sources until long after the close of comment on the New BART Exemption Rule, it was impracticable—indeed, impossible—to raise objections to that assumption during the public comment period on the proposed rule.

Second, EPA's "geographic emissions shifting" analysis, 82 Fed. Reg. at 45,491-94, which the agency relies on to demonstrate that the Transport Rule remains better than BART, was not included in the proposed rule at all. EPA's core emissions shifting analysis appeared for the first time in the final rule; not an iota of rationale or even reference to this analysis appeared in the proposed rule. Because EPA did not include its emissions shifting analysis in the proposed rule, and did not disclose it to the public until the final rule, it was impracticable to raise objections to the emissions shifting analysis during the public comment period on the proposed rule. Had EPA proposed the emission shifting rationales, or notified the public of the agency's intent with respect to Texas's BART obligations, petitioners and others would have had the opportunity to raise these and other concerns with the New BART Exemption Rule. They would also have had the opportunity to argue (as petitioners do below), that the final rule is unlawful and arbitrary.

EPA pointed commenters down one path, and then abruptly took a different path. EPA must remedy these deficiencies by convening a reconsideration proceeding and providing for notice and comment on these issues, which are central to the validity of the final rule's determination that the Transport Rule is better than BART after *Homer City II*.

[15] 82 Fed. Reg. at 45,492.
[16] *Id*. at 45,494.

II. EPA's Failure to Disclose or Evaluate Changed Factual and Legal Circumstances, and the Agency's Failure to Seek Public Comment on Key Aspects of the Sensitivity Analysis Constitute Errors Central to the Outcome of the New BART Exemption Rule.

EPA's failure to disclose or evaluate key factual and legal information that was of "central relevance to the rule constituted error that there is a substantial likelihood that the rule would have been significantly changed if such errors had not been made." 42 U.S.C. § 7607(d)(8). As an initial matter, EPA's conclusions are based on assumptions that are contrary to the evidence. Moreover, had EPA obeyed the law by soliciting public comment on all of the key information underlying the final rule, it would have learned of the serious substantive objections detailed below.

A. EPA's New BART Exemption Update Rule is Unlawfully and Arbitrarily Based on the Invalid Assumption that Texas Sources Would be Subject to Source-Specific BART Limits for Sulfur Dioxide.

A rule is arbitrary and capricious "if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise." *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) (citing *SEC v. Chenery Corp.*, 332 U.S. 194, 196 (1947)). Moreover, after issuance of a proposed rule, the Clean Air Act requires EPA to affirmatively update the rulemaking docket as new information becomes available. 42 U.S.C. § 7607(d)(4)(B)(i). 42 U.S.C. § 7607(d)(4)(B)(i) (requiring new data "be placed in the docket as soon as possible after their availability"); *see also Catawba County, North Carolina v. EPA*, 571 F.3d 20, 45 (D.C. Cir. 2009) (an agency has "an obligation to deal with newly acquired evidence in some reasonable fashion"); *WWHT, Inc. v. FCC*, 656 F.2d 807, 819 (D.C. Cir. 1981); *cf. Geller v. FCC*, 610 F.2d 973 (D.C. Cir. 1979) (where an agency action depends on a factual or legal assumption it is required to institute additional rulemaking proceedings "if subsequently that predicate disappears"). EPA's New BART Exemption Update Rule violates these fundamental principles in three key respects.

First, the New BART Exemption Rule is impermissibly based upon a factual predicate that no longer exists—namely, that sulfur dioxide emission reductions associated with the installation of presumptive source-specific BART would be install at Texas EGUs. But EPA's subsequently-issued BART trading scheme for Texas does not require source-specific limits for sulfur dioxide emissions for *any* EGU. And in fact, the new intrastate trading program allows Texas EGUs to *increase* their emissions over the final Transport Rule budget. *Compare* 82 Fed. Reg. at 48,353 (noting total allocations under final Transport Rule) *with* 82 Fed. Reg. at 48,358 (allowing up to 320,550 tons per year under Texas intrastate trading scheme). This is not simply a situation in which the agency passively acquired new information. Instead, EPA has used "the rulemaking process to pull a surprise switcheroo" on the public and regulated community. *Envt'l Integrity Project v. EPA*, 425 F.3d 992, 996 (D.C. Cir. 2005) (vacating EPA rule for failure to comply with notice requirements). EPA's proposed rule suggested that Texas sources would be subject to source-specific BART, but then reversed course and will now allow Texas to emit

more sulfur dioxide than under the Transport Rule itself. As a result, the New BART Exemption Update Rule is left without a factual basis and the agency must convene a reconsideration proceeding to evaluate whether the Transport Rule remains better than BART given the removal of the factual predicate underlying the final rule.

Second, EPA no longer has a valid basis for concluding that the Transport Rule remains better than BART. A BART alternative is permissible only if both of the following two criteria are met: (i) visibility does not decline in any Class I area, and (ii) there is an overall improvement in visibility, determined by comparing the average differences between BART and the alternative over all affected Class I areas. 40 C.F.R. § 51.308(e)(3). EPA's own 2012 Sensitivity Analysis, upon which the agency relies to demonstrate that the Transport Rule remains better than BART, was predicated on the assumption that Texas emissions under the Transport Rule would remain below 317,100 tons of sulfur dioxide annually. 81 Fed. Reg. at 78,963 n.58. Under EPA's newly-developed trading scheme for Texas, participating Texas EGUs will be allocated 238,393 tons of sulfur dioxide emissions annually. 82 Fed. Reg. at 48,358. A supplemental allowance pool allows those sources to increase emissions as much as 54,711 tons per year, making the total allowable allocations under the program 293,104 tons per year. *Id.* at 48,358-59. However, there are numerous sources that are not required to participate in the Texas trading scheme, but which would have been subject to the Transport Rule. . Those sources are not subject to any limitation under the Texas trading rule, and emit approximately 27,446 tons per year. 82 Fed. Reg. at 48,358. Moreover, as EPA indicates, additional allowances from retirements and corrections can be added to the Supplemental Allowance Pool up to some unspecified maximum. 82 Fed. Reg. at 48,356. This means that under the intrastate trading scheme for Texas that EPA adopted in lieu of BART, Texas EGUs are authorized to emit sulfur dioxide in excess of the 317,000 ton limit EPA's own analysis established as an upper bound to remain better than BART. Thus, with the withdrawal of Texas BART from the equation the Transport Rule and the adoption of an alternate trading program for Texas, EPA no longer has a factual or legal basis for asserting that the Transport Rule remains better than BART.

Finally, in light of EPA's qualitative analysis that the Transport Rule plus source-specific BART for Texas EGUs "would clearly have led to more visibility improvement" than the Transport Rule trading program for those same sources,[17] the agency cannot logically or factually maintain that the *opposite* is now true. In fact, a simple calculation demonstrates this fact. Applying the very same methodology that EPA used in 2012 to demonstrate that the Transport Rule remained better than BART despite the addition of 50,157 sulfur dioxide allowances, it is clear that the Transport Rule is not better than source-specific BART for Texas sources. In that 2012 analysis, the agency assumed that those additional SO2 allowances for Texas would "cause a 27% reduction in the number of sulfur dioxide tons reduced compared to the proposal modeling" because 50,157 was a 27% increase over the previous budget.[18] Therefore, EPA "multiplied the visibility improvement at the Class I areas affected by Texas by

[17] 81 Fed. Reg. at 78,963-64.

[18] *See* ''Sensitivity Analysis Accounting for Increases in Texas and Georgia Transport Rule State Emissions Budgets'' at 4-5 (May 29, 2012) [EPA Docket No. EPA–HQ–OAR–2011–0729–0323].

a factor of 0.73." The agency also "assume[d] that the . . . 27% reduction in SO_2 emissions reductions [i.e., emissions increase] . . . will linearly reduce the visibility benefits in nearby Class I areas by . . . 27%."[19] With that 27% increase in emissions, EPA calculated the visibility decline that would result in the nine Class I areas most affected by Texas emissions.

That same analysis can be used to calculate the relative visibility impacts between the current Transport Rule budget for Texas and the emissions that could be achieved with the reduction of 127,300 tons per year associated with source-specific BART.[20] In the table below, the visibility improvements that would be achieved with source-specific BART over the Transport Rule budgets are shown as positive numbers. *See* Exhibit A. As demonstrated, in every affected Class I area, source specific BART results in greater visibility improvement than the application of the Transport Rule budgets. By reversing course and refusing to apply source-specific BART to Texas EGUs, EPA has removed a "significant factual predicate" for EPA's finding that CSAPR continues to be better than BART. *WWHT*, 656 F.2d at 819. The agency must therefore convene a reconsideration proceeding to address the fundamental change in circumstances underlying the New BART Exemption Rule.

		20 % Best Days Visibility Improvement (dv)			20 % Worst Days Visibility Improvement (dv)		
Class I Area Name	State	CSAPR + BART-elsewhere	CSAPR + BART-elsewhere Proportionally Increased by 1.68	Improvement in Visibility Due to the Removal of TX from SO_2 CSAPR	CSAPR + BART-elsewhere	CSAPR + BART-elsewhere Proportionally Increased by 1.68	Improvement in Visibility Due to the Removal of TX from SO_2 CSAPR
Big Bend NP	TX	0.2	0.34	0.14	1.1	1.85	0.75
Caney Creek Wilderness	AR	0.4	0.67	0.27	3.2	5.38	2.18
Carlsbad Caverns NP	TX	0.1	0.17	0.07	0.9	1.51	0.61
Guadalupe Mountains NP	TX	0.1	0.17	0.07	0.9	1.51	0.61
Hercules-Glades Wilderness	MO	0.6	1.01	0.41	2.5	4.20	1.70
Salt Creek	NM	0.1	0.17	0.07	0.7	1.18	0.48

[19] *Id.*

[20] The table below applies the methodology used in Table 2 from the May 29, 2012 Transport Rule sensitivity memo from Brian Timin. *See id.* However, instead of an increase of 50,157 tons to the Texas budget, this table calculates the budget assuming the low end decrease of 127,300 tons, as discussed in the proposed rule that among other things, removed Texas from participating in the SO2 portion of CSAPR. 81 Fed. Reg. 78,963. An emission factor of 1.68 is calculated, using the same methodology discussed on the top of page 5 of the May 29, 2012 memo. Instead of replicating the change in visibility due to an increase in the Texas SO_2 budget, the Table applies that same methodology to calculating the change in visibility due to withdrawing Texas from the SO2 portion of CSAPR. *See* Exhibit A.

Upper Buffalo Wilderness	AR	0.5	0.84	0.34	2.5	4.20	1.70
White Mountain Wilderness	NM	0.1	0.17	0.07	0.6	1.01	0.41
Wichita Mountains	OK	0.2	0.34	0.14	1.6	2.69	1.09

B. EPA Unlawfully and Arbitrarily Failed to Seek Public Comment on the Final Rule's Geographic Emissions Shifting Analysis.

As noted above, Section I.A, the Clean Air Act requires, among other things, that EPA's proposed rule include "(A) the factual data on which the proposed rule is based; (B) the methodology used in obtaining the data and in analyzing the data; and (C) any major legal interpretations and policy considerations underlying the proposed rule," 42 U.S.C. § 7607(d)(3), and, after issuance of the proposed rule, that EPA affirmatively update the rulemaking docket as new information becomes available. *Id.* § 7607(d)(4)(B)(i).

EPA's New BART Exemption Update Rule violates this fundamental principle in two ways. First, EPA unlawfully failed to present its back-of-the envelope emissions shifting calculations—or even acknowledge the potential for emissions shifting—in the rulemaking proposal for public comment. Had EPA done so, petitioners and others would have had the opportunity to offer additional technical analysis regarding the adequacy of that emissions shifting rationale, of which petitioners had no adequate notice.[21] They would also have had the opportunity to argue (as petitioners do below), that the emissions shifting analysis is arbitrary. As things stand now, however, the specific emissions shifting rationale that EPA ultimately adopted has never been subjected to public notice and comment as required by the Act.

Second, even if EPA's entirely new emissions shifting calculations were to be accepted, there is no longer any factual basis for EPA's conclusory assertion that any visibility impact associated with emissions shifting will "be more than offset by greater visibility improvement in Class I areas near Texas" as a result of source-specific sulfur dioxide BART.[22] EPA acknowledged for the first time in the final rule that the removal of Texas from the Transport Rule trading program could result in a potential shift of 22,300 to 53,000 tons per year of sulfur dioxide allowances to other states, potentially "caus[ing] adverse visibility impacts in some individual Class I areas" thereby violating the first prong of the two-pronged better than BART test. 82 Fed. Reg. at 45,493. Despite that potential increase in emissions from other Transport Rule states due to the withdrawal of Texas from the program, EPA waves aside any resulting

[21] In their comments, Petitioners raised concerns that the removal of Texas from the Transport Rule could change the geographic distribution of emissions, thereby resulting in visibility declines in affected Class I areas. *Comments by Earthjustice* at 5-6, EPA Docket No. EPA-HQ-OAR-2016-0598. But Petitioners had no opportunity to address EPA's entirely new emissions shifting calculation or its conclusory assertion that any such changes in geographic distribution or concentration of emissions would be more than offset by source-specific BART in Texas—an assertion that is now demonstrably erroneous.

[22] 82 Fed. Reg. at 45, 494/1.

visibility impairment because presumptive source-specific BART for Texas will result in a reduction of at least 127,300 tons per year, more than offsetting any increase in other states.[23] Less than three weeks later, however, EPA abandoned its proposed source-specific BART limits for Texas EGUs, and instead adopted a new trading system that allows those EGUs to emit more pollution than had been allowed under the Transport Rule itself. As a result, the BART-related emission reductions EPA projected would "more than offset" any increases in other states have now vanished. In fact, the total increase in Texas EGU emissions could be even greater as a result of EPA's new trading scheme. Yet, EPA never provided the public with an opportunity to comment on that fundamental change in circumstances.

As a result of EPA's reversal and its decision to allow Texas to emit more sulfur dioxide than under the Transport Rule itself, the agency's emissions shifting analysis is left without a factual basis. Consequently, EPA must convene a reconsideration proceeding to evaluate whether the Transport Rule remains better than BART given the removal of the factual predicate underlying the final rule. *See WWHT*, 656 F.2d at 819 (an agency is required to institute additional rulemaking proceedings "if a significant factual predicate of a prior decision on the subject (either to promulgate or not to promulgate specific rules) has been removed.").

Moreover, EPA committed a procedural violation (*see* 42 U.S.C. § 7607(d)(9)(D)) by failing to solicit public comment on its emissions shifting analysis. That procedural violation is arbitrary and capricious. *See id.* § 7607(d)(9)(D)(i). Given EPA's failure to update the record or provide a supplemental notice, there was no way that commenters could have provided meaningful comment on EPA's final methodology and conclusions for the New BART Exemption Update Rule.

C. EPA's Continued Reliance on the 2012 Analysis is Arbitrary and Capricious in Light of the Agency's Emissions Shifting Analysis.

A rule is arbitrary and capricious where, as here, the agency has entirely failed to consider an important aspect of the problem or offered an explanation for its decision that runs counter to the evidence before the agency. *State Farm*, 463 U.S. at 43. Here, EPA's back-of-the envelope emissions shifting analysis is not only completely new, but it is also arbitrary and capricious because the agency failed to consider several fundamental problems with removing Texas from the Transport Rule trading program and implementing an entirely new intrastate trading program.

As an initial matter, even assuming EPA's entirely new back-of-the envelope emission shifting *calculation* was correct, the agency has failed to make the required technical demonstration that the Transport Rule trading program will continue to "achieve greater reasonable progress than would have resulted from the installation and operation of BART at all sources subject to BART." 40 C.F.R § 51.308(e)(2)(i). In particular, given the agency's admission that removing Texas from the Transport Rule trading program could result in a shift—*i.e.*, a change in distribution—of up to 53,000 tons per year of sulfur dioxide allowances

[23] *Id.*

to other states,[24] EPA's own regulations require the agency to conduct updated air dispersion modeling. 40 C.F.R. § 51.308(e)(3) (if the distribution of emissions is different under an alternative program, a state "must conduct dispersion modeling"). In light of EPA's admission that the distribution of emissions is, in fact, different, the agency's failure to conduct additional modeling is unlawful.

Second, EPA's conclusion that there will be no decline in visibility is arbitrarily based on the assumption that any increase in emissions would be caused by only two factors: change in demand relative to other states or relative fuel prices in other states in a revised Transport Rule scenario.[25] As discussed more fully below, these are hardly the only two factors that can shift emissions in a post-Transport Rule update rule. For example, some sources might choose to shut down rather than reduce emissions or buying allowances, thereby shifting generation elsewhere. Some sources might choose to buy more allowances, as there will be more on the market. Some utility providers might simply choose to re-dispatch to more efficient or more economic generation. Moreover, EPA's emission shifting analysis also fails to consider significant changes in market conditions and outlooks for the coal generation sector.[26]

Despite changes in the power sector and other factors that influence the distribution and quantity of Transport Rule emissions, EPA arbitrarily relies on outdated modeling instead of updating the technical support for its action, as the agency has done in other contexts. In its recent update to the Transport Rule, for example, EPA itself relied on more updated Integrated Planning Model data to analyze the impact of the updated Transport Rule on the U.S. electric power sector.[27] Given the withdrawal of Texas from the Transport Rule's trading program and changes to other Transport Rule state emission budgets combined with recent changes in the power sector, EPA can and must do the same kind of updated analysis here. Without updating its power sector or air quality modeling to account for changes in the distribution and quantity of Transport Rule emissions as well as other changes in the power sector, EPA has no data to demonstrate that its own "better than BART" test will continue to be met, given the removal of Texas from the trading program and other post-*Homer City II* changes.

Third, even accepting EPA's emissions shifting calculations and its dubious premise that any increase in emissions would be caused by only two factors, there is no longer any factual basis for EPA's conclusory assertion that any visibility impact associated with emissions shifting will "be more than offset by greater visibility improvement in Class I areas near Texas" as a result of source-specific sulfur dioxide BART.[28] As noted above, EPA's entire emissions shifting analysis assumed the implementation of source-specific BART for Texas EGUs—an

[24] 82 Fed. Reg. at 45,493/3.
[25] *Id*. at 45,493 n.88.
[26] *See, e.g., Comments by Earthjustice* at 4, EPA Docket No. EPA-HQ-OAR-2016-0598 (citing, *inter alia*, http://www.eia.gov/electricity/annual/html/epa_03_02_a.html (Net Generation by Energy Source: Electric Utilities, 2005-2015) (last visited Jan. 9, 2017)).
[27] *See* https://www.epa.gov/airmarkets/analysis-cross-state-air-pollution-rule-update (last visited Jan. 9, 2017).
[28] 82 Fed. Reg. at 45,494/1.

assumption that is no longer valid. Nor is there any factual basis for EPA's conclusory assertion that the removal of Texas from the Transport Rule trading program is:

> unlikely to cause localized visibility degradation in any Class I area near a CSAPR state affected by the removal of Texas from CSAPR for SO_2. In consequence, the Agency finds it reasonable to conclude that in such a revised CSAPR scenario, no such Class I areas would experience declines in visibility conditions relative to the base case scenario.

Indeed, EPA's assumption that source-specific BART for Texas will result in a reduction of at least 127,300 tons per year has vanished. And its new Texas trading system allows EGUs to emit more pollution than had been allowed under the Transport Rule itself. EPA had an obligation to deal with that "newly acquired evidence in some reasonable fashion." *See also Catawba County, North Carolina v. EPA*, 571 F.3d 20, 45 (D.C. Cir. 2009). At a minimum, and as discussed above, EPA could have applied the same 2012 Sensitivity Analysis methodology to a variety of nearby Class I areas to determine a worst-case impact.

Finally, EPA's emissions shifting analysis is fundamentally flawed because it fails to address at least two additional factors that are critical to the continuing regulatory viability of the Transport Rule sulfur dioxide trading program in light of the withdrawal of Texas from the program: (1) the impact on sulfur dioxide market prices and (2) significant changes in the cost-effectiveness and efficacy of source-specific BART. In the final rule, EPA acknowledges the importance of both of these interrelated factors:

> Under the base case scenario, EGUs incur no cost at all under CSAPR for emitting a ton of SO_2. In contrast, under either the original CSAPR scenario or a revised CSAPR scenario, EGUs would incur some cost per ton of SO_2 emissions under CSAPR, and where that new cost is the principal change from the base case scenario, EGUs that emit SO_2 would generally be projected to either decrease or maintain their emissions relative to the base case scenario where that cost was not present. *If in a revised CSAPR scenario, allowances are more plentiful and the cost incurred per ton of SO_2 emissions therefore is less than the cost per ton under the original CSAPR scenario, some EGUs that emit SO_2 would be projected to reduce their SO_2 emissions by a smaller amount than in the original CSAPR scenario*, but they generally would not be projected to significantly increase their emissions relative to the base case scenario. [29]

Despite the obvious effect of these factors on the continuing viability of the Transport Rule, EPA performs no real analysis of the impact of the removal of Texas from the Transport Rule for sulfur dioxide on the pricing of the CSAPR allowance market in its rule. Although EPA attempts to cast aside Petitioners' previous comments regarding the validity of the original 2012 analytic demonstration[30] EPA's admits that the cost incurred per ton of sulfur dioxide removed is

[29] 82 Fed. Reg. at 45,493 (emphasis added).
[30] *Id*. at 45,494.

relevant to the cost-effectiveness of BART control technology. [31] It is reasonable to expect that with the exit of Texas, which was predicted to purchase 22,300 tons of sulfur dioxide from other Group 2 member states, that the price of allowances would be affected. EPA addresses a number of potentially applicable factors: fuel type, fuel pricing, and electricity demand, but declines to address how the pricing and availability of SO_2 allowances could affect the integrity of the Transport Rule trading program. In a reconsideration proceeding, Petitioners would offer additional technical analysis regarding the adequacy of the EPA's emissions shifting analysis, including an analysis on the expected price of SO_2 allowance pricing with Texas no longer participating in the program.

EPA's emissions shifting analysis is similarly flawed in its approach to outdated "presumed" BART emission limits. As Petitioners have repeatedly argued, it is feasible and common for coal-fired EGUs to cost-effectively meet sulfur dioxide emission limits between 0.04 and 0.06 lb./mmBTU—significantly lower than the "presumptive" 0.15 lb/mmBTU limit that EPA had relied on in concluding that the New BART Exemption Rule was "better than BART." EPA has come to the same conclusion in its proposed rule to satisfy Texas's long-overdue BART obligations under the Clean Air Act. 82 Fed. Reg. 912 (Jan. 4, 2017). Notably, EPA has not refuted the technical documentation supporting its conclusions that Texas EGUs could achieve those much lower emission limits. Thus, there is nothing in the record to support EPA's conclusion that BART should be based on a comparison to presumptive limits for these units. As a consequence, EPA's conclusion that sulfur dioxide BART for Texas should be based on presumptive limits is flawed.

Further, it is more than reasonable to conclude that similar units could achieve similar emission limits. In fact, EPA used that approach in its BART analysis.[32] This calls into question EPA's basic approach to using presumptive BART as a threshold of comparison to CSAPR. EPA's reliance on presumptive BART in its New BART Exemption Rule, while essentially simultaneously developing a very large record demonstrating that the same or similar units could achieve much lower sulfur dioxide emission limits is arbitrary. Indeed, in its proposed 2016 BART Rule for Texas, EPA projected that source-specific BART would have reduced harmful sulfur dioxide emissions by 194,000 tons per year versus the estimated 127,000 tons per year associated with "presumptive" BART limits. EPA's subsequent source-specific BART proposal for Texas not only calls into question the agency's projected Transport Rule -related reductions for Texas, but it calls into serious question EPA's continued reliance on presumptive BART for

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[31] Id. at 45,493.

[32] Technical Support Document for the Texas Regional Haze BART Federal Implementation Plan at p. 45 (Nov. 2016) (Revised December 2016, see Errata- BART Modeling TSD for details) [EPA Docket No. EPA–R06–OAR–2016–0611]("It should be noted that the lowest available SO_2 emission guarantees, from the original equipment manufacturers of wet FGD systems, are 0.04 lb/MMBtu. As we established in our Oklahoma FIP, 68 this level of control is achievable with wet FGD. This level of control was also employed in our recent Texas-Oklahoma FIP. 69 We received a comment challenging this level of control and we reproduce our response to that comment in Appendix A. We continue to conclude that our proposed level of control for wet FGD is reasonable.").

all of the other Transport Rule states.

CONCLUSION

For all the foregoing reasons, EPA must reconsider the portion its New BART Exemption Rule that finds that the Transport Rule remains better than BART despite the withdrawal of Texas from the trading program.

Sincerely,

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Exhibit A

In the first tab, this spreadsheet reproduces the Texas portion of the calculations from the CSPAR BART sensitivity memo from Brian Timin to Docket ID No. EPA-HQ-OAR-2011-0729: Regional Haze: Revisions to Provisions Governing Alternatives to Source-Specific Best Available Retrofit Technology (BART) Determinations, Limited SIP Disapprovals, and Federal Implementation Plans, dated 5/29/12. It applies the corrections from the above referenced memo to the projected visibility improvement results for the 2nd prong test summarized in Table 3-5 of the Document, "Technical Support Document for Demonstration of the Transport Rule as a BART Alternative," December 2011. It demonstrates that for Texas Class I areas and some of the Class I Areas in adjacent states, implementation of BART wold have resulted in more visibility improvement than CSAPR.
In the second tab, that same technique is used to estimate estmate the amount of visibility improvement that would result from the removal of Texas from SO2 CSAPR, assuming presumptive BART. In this case, a low end decrease of 127,300 tons is assumed, as discussed in the proposed rule that among other things, removed Texas from participating in the SO2 portion of CSAPR (81 FR 78963). Unlike the use of this estimation technique in the first tab, its use in the second tab is acknowledged to not carry the same degree of conservatisim.

The table below replicates Table 2 from the 5/29/12 CSPAR BART sensitivity memo from Brian Timin, with the addition of the calculation of the adjustment factors for Texas and Georgia discussed on the top of page 5 of that document. Note that EPA calculates a factor of 0.48 for Gerogia, which is a conservative rounding up of the factor calculated here.

State	2014 Base Case SO2 Emissions [tons]	2014 TR + BART-elsewhere SO2 Emissions (estimate from IPM used in air quality modeling) [tons]	SO2 Emissions Decrease from TR (as modeled) [tons]	2014 Budget Increase [tons]	SO2 Emissions Decrease from TR with Increased Budget [tons]	EPA's Resulting Emission Factor
Texas	453,332	266,627	-186,705	50,157	-136,548	0.731
Georgia	170,300	93,600	-76,700	40,334	-36,366	0.474
Total	623,632	360,227	-263,405	90,491	-172,914	

The table below is reproduced from Table 3 of the 5/29/12 CSPAR BART sensitivity memo from Brian Timin. It includes the Class I areas most affected by Texas emissions and the modeled visibility improvement from the Transport Rule + BART-elsewhere case (in deciviews). The 0.73 proportionality factor was calculated in the Brian Timin memo to correct for the increase of 50,157 tpy SO2 that was

Class I Area Name	State	TR + BART-elsewhere 20% Best Days (change in dv)	TR + BART-elsewhere 20% Best Days Proportionally Reduced by 0.73 (change in dv)	TR + BART-elsewhere 20% Worst Days (change in dv)	TR + BART-elsewhere 20% Worst Days Proportionally Reduced by 0.73 (change in dv)
Big Bend NP	TX	-0.2	-0.15	-1.1	-0.80
Caney Creek Wilderness	AR	-0.4	-0.29	-3.2	-2.34
Carlsbad Caverns NP	TX	-0.1	-0.07	-0.9	-0.66
Guadalupe Mountains NP	TX	-0.1	-0.07	-0.9	-0.66
Hercules-Glades Wilderness	MO	-0.6	-0.44	-2.5	-1.83
Salt Creek	NM	-0.1	-0.07	-0.7	-0.51

Upper Buffalo Wilderness	AR	-0.5	-0.37	-2.5	-1.83
White Mountain Wilderness	NM	-0.1	-0.07	-0.6	-0.44
Wichita Mountains	OK	-0.2	-0.15	-1.6	-1.17

In the above and below, improvements in visibility are represented by negative numbers, as this was used in the original analysis. Note that the reduction in TX emissions of 27% due to the increase in TX's SO2 budget of 50,157 tpy does not affect the "no degredation" test because all the modified visibility changes are still negative (some improvement).

Class I Areas (IMPROVE Site)	State	2014 Base Case Visibility 20% Best Days (dv)	2014 Base Case Visibility 20% Worst Days (dv)	TR + BART-elsewhere 20% Best Days (change in dv)	TR + BART-elsewhere 20% Best days Proportionally Reduced by 0.73 (change in dv)	TR + BART-elsewhere 20% Worst Days (change in dv)	TR + BART-elsewhere 20% Worst days Proportionally Reduced by 0.73 (change in dv)	BART - 2014 Base Case 20% Best Days (change in dv)	BART - 2014 Base Case 20% Worst Days (change in dv)
Acadia NP	ME	8.0	20.1	0.0		-1.1		0.0	-0.8
Badlands NP	SD	6.3	16.0	-0.1		-0.6		-0.1	-0.7
Bandelier NM	NM	4.2	11.1	-0.1		-0.3		-0.1	-0.4
Big Bend NP	TX	5.4	16.3	-0.2	-0.15	-1.1	-0.80	-0.2	-1.0
Black Canyon of the Gunnison	CO	2.3	9.5	-0.1		-0.1		-0.1	-0.1
Bosque del Apache	NM	5.6	13.0	-0.1		-0.6		-0.1	-0.6
Boundary Waters Canoe Area	MN	5.8	18.8	-0.1		-1.2		-0.1	-1.0
Brigantine	NJ	13.2	25.4	-0.4		-2.5		-0.2	-1.6
Caney Creek Wilderness	AR	11.3	24.4	-0.4	-0.29	-3.2	-2.34	-0.6	-2.2
Carlsbad Caverns NP	TX	5.2	15.5	-0.1	-0.07	-0.9	-0.66	-0.1	-0.8
Cohutta Wilderness	GA	12.9	26.6	-0.8		-3.8		-0.5	-2.3
Dolly Sods Wilderness	WV	10.3	27.1	-1.1		-5.7		-0.8	-3.2
Eagles Nest Wilderness	CO	0.4	8.3	0.0		-0.1		0.0	-0.1
Everglades NP	FL	11.5	20.4	-0.3		-1.0		-0.3	-0.7
Flat Tops Wilderness	CO	0.4	8.3	0.0		-0.1		0.0	-0.1
Great Gulf Wilderness	NH	6.7	19.2	-0.1		-1.8		-0.1	-1.3
Great Sand Dunes NM	CO	3.5	11.3	-0.1		-0.2		-0.1	-0.2
Great Smoky Mountains NP	TN	12.2	27.0	-0.8		-3.7		-0.7	-2.0
Guadalupe Mountains NP	TX	5.2	15.5	-0.1	-0.07	-0.9	-0.66	-0.1	-0.8
Hercules-Glades Wilderness	MO	12.2	25.2	-0.6	-0.44	-2.5	-1.83	-0.8	-1.7
Isle Royale NP	MI	6.4	19.9	-0.1		-1.0		-0.2	-0.9
James River Face Wilderness	VA	12.9	25.8	-0.9		-4.2		-0.5	-2.1
Joyce-Kilmer-Slickrock Wildern	TN	12.2	27.0	-0.8		-3.7		-0.7	-2.0

La Garita Wilderness	CO	2.3	9.5	-0.1		-0.1		-0.1	-0.1
Linville Gorge Wilderness	NC	10.3	26.0	-0.7		-4.3		-0.5	-2.3
Lostwood	ND	7.9	18.8	-0.1		-0.5		-0.1	-0.5
Lye Brook Wilderness	VT	5.5	20.7	-0.1		-2.6		-0.1	-1.7
Maroon Bells-Snowmass Wilde	CO	0.4	8.3	0.0		-0.1		0.0	-0.1
Mammoth Cave NP	KY	15.3	29.5	-1.2		-5.1		-0.9	-2.8
Medicine Lake	MT	6.5	17.7	0.0		-0.3		0.0	-0.3
Mesa Verde NP	CO	3.2	11.4	-0.1		-0.3		-0.1	-0.3
Moosehorn	ME	8.4	19.0	0.0		-1.0		0.0	-0.8
Mount Zirkel Wilderness	CO	1.0	9.2	0.0		-0.1		0.0	-0.1
North Absaroka Wilderness	WY	1.5	11.1	0.0		0.0		0.0	0.0
Okefenokee	GA	13.9	24.1	-0.9		-2.5		-0.7	-1.7
Otter Creek Wilderness	WV	10.3	27.1	-1.1		-5.7		-0.8	-3.2
Pecos Wilderness	NM	1.0	9.0	-0.1		-0.2		-0.1	-0.2
Presidential Range-Dry River W	NH	6.7	19.2	-0.1		-1.8		-0.1	-1.3
Rawah Wilderness	CO	1.0	9.2	0.0		-0.1		0.0	-0.1
Roosevelt Campobello Internat	ME	8.4	19.0	0.0		-1.0		0.0	-0.8
Cape Romain	SC	13.6	24.0	-0.7		-2.9		-0.4	-1.9
Rocky Mountain NP	CO	2.0	12.2	0.0		-0.1		0.0	-0.1
Salt Creek	NM	7.3	17.1	-0.1	-0.07	-0.7	-0.51	-0.2	-0.7
San Pedro Parks Wilderness	NM	1.2	9.9	-0.2		-0.3		-0.2	-0.4
Seney	MI	6.9	23.3	-0.1		-1.6		0.0	-1.5
Shenandoah NP	VA	9.0	26.2	-0.8		-5.0		-0.6	-3.0
Shining Rock Wilderness	NC	6.3	24.8	-0.7		-3.8		-0.5	-2.1
Sipsey Wilderness	AL	14.5	26.5	-0.9		-3.7		-0.9	-2.1
Theodore Roosevelt NP	ND	6.8	17.0	0.0		-0.3		0.0	-0.4
UL Bend	MT	4.2	15.2	0.0		-0.1		0.0	-0.1
Upper Buffalo Wilderness	AR	11.3	24.7	-0.5	-0.37	-2.5	-1.83	-0.6	-1.4
Voyageurs NP	MN	6.6	18.4	-0.1		-1.0		-0.1	-0.8
Washakie Wilderness	WY	1.5	11.1	0.0		0.0		0.0	0.0
West Elk Wilderness	CO	0.4	8.3	0.0		-0.1		0.0	-0.1
Weminuche Wilderness	CO	2.3	9.5	-0.1		-0.1		-0.1	-0.1
White Mountain Wilderness	NM	3.1	12.3	-0.1	-0.07	-0.6	-0.44	-0.2	-0.5
Wheeler Peak Wilderness	NM	1.0	9.0	-0.1		-0.2		-0.1	-0.2
Wind Cave NP	SD	4.6	15.1	0.0		-0.3		-0.1	-0.4
Wichita Mountains	OK	9.1	21.7	-0.2	-0.15	-1.6	-1.17	-0.2	-1.2
Wolf Island	GA	13.9	24.1	-0.9		-2.5		-0.7	-1.7
Eastern Class I Areas Average (60 Areas)				-0.3		-1.6		-0.2	-1.0

The above information is taken from Table 3-5 of the Document, "Technical Support Document for Demonstration of the Transport Rule as a BART Alternative," December 2011. As can be seen from a comparison to the first table, it also includes BART base case modeling results. In above, only Class I Areas in TX or those in surrounding states EPA identified in the Brian Timin memo as being impacted by TX's SO2 emissions were examined.

		20 % Best Days Visibility Improvement (dv)				20 % Worst Days Visibility Improvement (dv)			
Class I Area Name	State	TR + BART-elsewhere	TR + BART-elsewhere after EPA Adjustment	BART - 2014 Base Case	Better Visibility under BART before or after EPA Adjustment?	TR + BART-elsewhere	TR + BART-elsewhere after EPA Adjustment	BART - 2014 Base Case	Better Visibility under BART before or after EPA Adjustment?
Big Bend NP	TX	0.2	0.15	0.2	Y - After	1.1	0.80	1.0	Y - After
Caney Creek Wilderness	AR	0.4	0.29	0.6	Y - Before	3.2	2.34	2.2	N
Carlsbad Caverns NP	TX	0.1	0.07	0.1	Y - After	0.9	0.66	0.8	Y - After
Guadalupe Mountains NP	TX	0.1	0.07	0.1	Y - After	0.9	0.66	0.8	Y - After
Hercules-Glades Wilderness	MO	0.6	0.44	0.8	Y - Before	2.5	1.83	1.7	N
Salt Creek	NM	0.1	0.07	0.2	Y - Before	0.7	0.51	0.7	Y - After
Upper Buffalo Wilderness	AR	0.5	0.37	0.6	Y - Before	2.5	1.83	1.4	N
White Mountain Wilderness	NM	0.1	0.07	0.2	Y - Before	0.6	0.44	0.5	Y - After
Wichita Mountains	OK	0.2	0.15	0.2	Y - After	1.6	1.17	1.2	Y - After
Totals		2.3	1.7	3.0		14.0	10.2	10.3	

The above summary table summarizes the analysis for the Class I Areas most affected by Texas emissions. For the sake of clarity, changes in visibility from baselines which were previously represented as negative numbers, have been changed to positive numbers to more intuitively represent visibility improvement. As can be seen, in every Texas Class I Area and in every adjacent Class I Area EPA identified was impacted by Texas emissions, better visibility improvement resulted in the 20% best days and/or the 20% worst days from source-by-source BART than through CSAPR.

The table below applies the methodology used in Table 2 from the 5/29/12 CSPAR BART sensitivity memo from Brian Timin. However, instead of an increase of 50,157 tons to the Texas budget, this table calculates the budget assuming the low end decrease of 127,300 tons, as discussed in the proposed rule that among other things, removed Texas from participating in the SO2 portion of CSAPR (81 FR 78963). An emission factor of 1.68 is calculated, using the same methodology discussed on the top of page 5 of the 5/29/12 memo. However, instead of replicating the change in visibility due to an increase in the TX SO2 budget as was done in the previous tab, this tab applies that same methodology to calculating the change in visibility due to withdrawing Texas from the SO2 portion of CSAPR.

State	2014 Base Case SO2 Emissions [tons]	2014 TR + BART-elsewhere SO2 Emissions (estimate from IPM used in air quality modeling) [tons]	SO2 Emissions Decrease from TR (as modeled) [tons]	Low-end Budget Decrease from withdrawal of Texas from SO2 CSAPR [tons]	SO2 Emissions Decrease from TR with TX withdrawal [tons]	Resulting Emission Factor
Texas	453,332	266,627	-186,705	-127,300	-314,005	1.68

		20 % Best Days Visibility Improvement (dv)			20 % Worst Days Visibility Improvement (dv)		
Class I Area Name	State	TR + BART-elsewhere	TR + BART-elsewhere Proportionally Increased by 1.68	Improvement in Visibility Due to the Removal of TX from SO2 CSAPR	TR + BART-elsewhere	TR + BART-elsewhere Proportionally Increased by 1.68	Improvement in Visibility Due to the Removal of TX from SO2 CSAPR
Big Bend NP	TX	0.2	0.34	0.14	1.1	1.85	0.75
Caney Creek Wilderness	AR	0.4	0.67	0.27	3.2	5.38	2.18
Carlsbad Caverns NP	TX	0.1	0.17	0.07	0.9	1.51	0.61
Guadalupe Mountains NP	TX	0.1	0.17	0.07	0.9	1.51	0.61
Hercules-Glades Wilderness	MO	0.6	1.01	0.41	2.5	4.20	1.70
Salt Creek	NM	0.1	0.17	0.07	0.7	1.18	0.48
Upper Buffalo Wilderness	AR	0.5	0.84	0.34	2.5	4.20	1.70
White Mountain Wilderness	NM	0.1	0.17	0.07	0.6	1.01	0.41
Wichita Mountains	OK	0.2	0.34	0.14	1.6	2.69	1.09

The above table summarizes the analysis for the Class I Areas most affected by Texas emissions. The same TR + BART elsewhere values as used in the previous tab are used here. For the sake of clarity, changes in visibility from baselines which were previously represented as negative numbers, have been changed to positive numbers to more intuitively represent visibility improvement. Using the same methodology EPA employed in its 5/29/12 CSPAR BART sensitivity memo from Brian Timin to estimate the change in visibility due to the withdrawal of Texas from SO2 CSAPR here results in a 68% increase in visibility at the Class I Areas most impacted from Texas' emissions. The estimation technique used in the 5/29/12 Brian TImin memo assumed all of the visibility impacts came from the state in question resulting in an overestimation of the decline in visibility. That was a conservative technique because the goal was to demonstrate that CSAPR remained better-than-BART despite the decline in visibility due to increases in state budgets. However, using that same approach to estimating the improvement in visibility due to a reduction in Texas' SO2 budget is not conservative, since it similarly overestimates the visibility impact. In other words, the true visibility improvement due to the removal of Texas from SO2 CSAPR is likely smaller.

CERTIFICATE OF SERVICE

I hereby certify that on November 28, 2017, I filed National Parks Conservation Association and Sierra Club's Petition for Partial Reconsideration of Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan Requirements for Texas; Final Rule; 82 Fed. Reg. 45,481 (Sept. 29, 2017); EPA-HQ-OAR-2016-0598; FRL-9968-46-OAR, via email and Federal Express, to:

Administrator Scott Pruitt
Office of the Administrator
U.S. Environmental Protection Agency
William Jefferson Clinton Building – Mail Code 1101A
1200 Pennsylvania Ave., NW
Washington, DC 20460
Pruitt.Scott@epa.gov

Further, I certify that on November 28, 2017, I served a courtesy copy of the foregoing, via email, to:

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November 28, 2017

/s/ Gabrielle Winick
Gabrielle Winick