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VIA FEDERAL EXPRESS AND ELECTRONIC MAIL

Administrator Lisa P. Jackson U.S. Environmental Protection Agency Room 3000, Ariel Rios Building 1200 Pennsylvania Avenue, N.W. Washington, D.C. 20460 (jackson.lisa@epa.gov)

Assistant Administrator Gina McCarthy U.S. Environmental Protection Agency Office of Air and Radiation Ariel Rios Building, Mail Code: 6101A 1200 Pennsylvania Avenue, N.W. Washington, D.C. 20460 (mccarthy.gina@epa.gov)

RE: Request for Partial Reconsideration and Stay of EPA's Final Rule titled "Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone in 27 States" signed July 6, 2011 (Docket No. EPA-HQ-OAR-2009-0491)

Dear Administrator Jackson and Assistant Administrator McCarthy:

Luminant¹ respectfully requests that the U.S. Environmental Protection Agency ("EPA") grant partial reconsideration and immediately stay the compliance deadline and effective date of EPA's Final Rule signed July 6, 2011, titled "Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone in 27 States" ("Final Transport Rule" or "FTR"²) as it applies to Texas.

¹ This request is submitted by Luminant Generation Company LLC, Sandow Power Company LLC, Big Brown Power Company LLC, Oak Grove Management Company LLC, Luminant Mining Company LLC, Big Brown Lignite Company LLC, Luminant Big Brown Mining Company LLC, and Oak Grove Mining Company LLC—referred to here collectively as "Luminant"

² The pre-publication version of the Final Transport Rule, signed on July 6, 2011, is cited as "FTR."

Less than a year ago, EPA concluded that Texas emissions have no significant downwind effect on other states, and it issued a proposed rule that did not include Texas in the group of states required to address downwind effects related to fine particulate matter ("PM_{2.5}"). Without providing fair notice and opportunity to comment, EPA now mandates in the Final Transport Rule that Texas slash its SO₂ emissions by half and greatly reduce NOx emissions in less than five months—an unprecedented and unreasonable compliance timetable. Further, EPA would have Texas bear twenty-five percent of the SO₂ reduction burden imposed under this rule (more than twice the state's contribution to the total SO₂ emissions of all states included in the rule) and reduce NOx emissions beyond the sixty-two percent reduction achieved by the state between 1995 and 2010. These requirements will seriously jeopardize the ability of the state's electric grid to supply power to Texas businesses and consumers and threaten the loss of hundreds of high-paying rural jobs. EPA imposes these requirements based on its erroneous, highly speculative prediction that a tiny contribution from Texas to the air quality at a single monitor located nearly five hundred miles away in Illinois will cause that monitor to be in nonattainment with the EPA's PM_{2.5} standards in 2012, ignoring EPA's own finding that this very site is already in air-quality attainment. EPA has issued this mandate without providing the state an opportunity to offer an implementation plan of its own, a failure that is beyond EPA's legal authority and is contrary to the fundamental structural component of the Clean Air Act—the statute's framework of "cooperative federalism."

As a matter of process and substance, the Final Transport Rule's mandates are unjust and unlawful and will cause irrevocable harm to Texas and to Luminant. For these reasons, the significant flaws underlying the Final Transport Rule's application to Texas warrant partial reconsideration and a stay of the compliance deadline and effective date of the rule as it applies to Texas.

Accordingly, Luminant requests that EPA convene a proceeding for reconsideration of the Final Transport Rule as it applies to Texas, including the annual emissions budgets for sulfur dioxide ("SO₂") and nitrogen oxides ("NOx"), the seasonal budget for NOx, and the compliance deadlines and obligations for both the annual and seasonal programs.³ Luminant further requests that, as to Texas, EPA stay and delay the effective date of the rule and the compliance deadline

³ Luminant is requesting reconsideration and stay of the SO₂ and NOx annual budgets for Texas, the NOx seasonal budget for Texas, the FIPs that EPA is issuing for Texas, and the compliance deadlines and obligations for Texas EGUs under both the annual and seasonal programs. Although Texas was proposed to be included in the seasonal NOx program, the new seasonal budget finalized by EPA is significantly lower than the proposed budget (75,574 tons versus 63,043 tons) and suffers from many of the same underlying errors and assumptions as EPA's annual NOx budget for Texas, as discussed herein. Further, Luminant is continuing to review and analyze EPA's 1,323-page Final Transport Rule and the scores of new documents that EPA posted to the docket after finalizing the rule, and thus it reserves the right to supplement this request as appropriate.

of January 1, 2012, during its reconsideration proceeding and any judicial review of the rule, and extend the compliance deadlines to reflect at least the stay period.⁴

⁴ As part of this stay, Luminant further requests that EPA stay its decision to remove CAIR allowances from individual accounts in EPA's Allowance Management System, which EPA has advised account holders it will do on October 14, 2011. EPA should leave CAIR allowances in individual accounts pending reconsideration and any judicial review.

Overview

Luminant is a competitive power generation business in Texas that, among other things, operates EGUs and sells electricity. Luminant Mining Company LLC, Big Brown Lignite Company LLC, and Oak Grove Mining Company LLC operate lignite mines that provide fuel to affiliated Luminant coal-fueled EGUs in the state. Luminant contributes approximately 31% of the electricity dispatched to Texas consumers and businesses by the Electric Reliability Council of Texas ("ERCOT"), the independent system operator that manages the state's competitive power market that serves the majority of the state. To accomplish this, Luminant owns and operates twelve coal-fueled EGUs at five generating plants in Texas (Big Brown, Martin Lake, Monticello, Sandow, and Oak Grove) that produce over 8,000 megawatts of power used by approximately three million Texans across the state. These coal plants together with other coal-fired generation in the state provide approximately 40% of the electricity consumed in ERCOT.

EPA did not propose to regulate Texas and Texas EGUs under the annual program in the rule when it made the rule available for public comment in August 2010, but, without any further notice, added Texas to the Final Transport Rule and imposed on Texas annual emissions budgets for SO₂ and NOx starting in 2012. There are several reasons that reconsideration and stay as to Texas are necessary:

- Texas is unique among the states for which an annual PM_{2.5} FIP was promulgated in the Final Transport Rule. Texas was not among the states that EPA proposed to be included in a PM_{2.5} FIP, nor did EPA propose annual SO₂ and NOx emissions budgets for Texas. As to those annual programs for Texas, the Final Transport Rule is a complete reversal of the proposed rule made available for public comment and is not the logical outgrowth of it. Thus, it is unlawful under governing federal law. EPA has changed both its conclusion and its rationale as to Texas, requiring additional public notice and comment. EPA admits that the comments it sought as to Texas in the proposed rule are "no longer relevant" given the substantial changes to the final rule, demonstrating further that the rule is invalid for failing to follow statutorily required notice and comment procedures.
- The Office of Management and Budget's ("OMB") report on interagency review observed that EPA has produced a "significantly different rule than originally proposed" given the addition of Texas and other changes, threatening the ability of regulated sources to meet the strict deadlines in the rule:

It is unclear if states and affected facilities will be prepared for a January 1, 2012 start date, especially given other changes that EPA is making in the draft final rule. For instance, modeling results used in the final rule are substantially different than those in the original August 2, 2010 Proposed Rule and subsequent notices. Six (6) States are being dropped from the proposed rule; <u>Texas is being added</u>; 3 States have their SO₂ Group status change; and the sheer magnitude of change to the budgets of

all of the states results in a significantly different rule than originally proposed.⁵

EPA should heed this warning in OMB's report by convening a reconsideration proceeding as to Texas and staying the impending compliance deadline, to allow for full public comment on the significant changes EPA has made.

- EPA's conclusion that Texas is "significantly contributing" to downwind nonattainment is questionable at best. EPA recently determined that the single downwind "receptor" identified as being impacted by Texas—the Granite City monitor in Madison County, Illinois—is in attainment with the 1997 PM_{2.5} National Ambient Air Quality Standard ("NAAQS"). Thus, there is no nonattainment to address. In other words, the actual air quality monitoring data belie EPA's "predictive" modeling. Given Madison County's current attainment status and the fact that Texas EGU emissions are decreasing and have been for over a decade, a fact that even EPA admits, it strains logic for EPA to predict that this monitor will suddenly fall into nonattainment in just a few months as a result of Texas emissions.⁶
- Furthermore, the emissions reductions that EPA is requiring of Texas in the final rule are well in excess of what is necessary to address the state's alleged "significant contribution" to EPA's hypothetical downwind nonattainment. Thus, EPA is without authority to mandate these reductions. Under § 110(a)(2)(d)(i)(I) of the Clean Air Act, EPA has authority to require a state to eliminate the "amount" of emissions that "contribute significantly" to downwind nonattainment but cannot require anything more. See North Carolina v. EPA, 331 F.3d 896, 921 (D.C. Cir. 2008) ("[S]ection 110(a)(2)(D)(i)(I) gives EPA no authority to force an upwind state to share the burden of reducing other upwind states' emissions.").

⁵ Summary of Interagency Working Comments on Draft Language under EO 12866 Interagency Review ("OMB Summary of Interagency Working Comments"), Document EPA-HQ-OAR-2009-0491-4133 at 11 (posted July 11, 2011) (emphasis added).

⁶ EPA concedes "that Texas EGUs have reduced their SO₂ emissions since 2005." Transport Rule Primary Response to Comments at 564 ("Response to Comments"), Document EPA-HQ-OAR-2009-0491-4513 (June 2011). These reductions are significant and are part of a fifteen-year downward trend in the state. According to EPA's Clean Air Markets Division, emissions of both SO₂ and NOx have steadily decreased in the Texas power sector over the period of 1995 to 2010. Specifically, SO₂ emissions decreased 26% from approximately 621,000 to 462,000 tons, while NOx emissions decreased 62% from 376,000 to 146,000 tons. Approximately 73,000 tons of the 159,000 tons of SO₂ reductions have come since 2005, with 57,000 tons (35%) attributable to Luminant alone. Further, the Texas power sector's emissions rates are below the U.S. average. Its 2010 SO₂ emission rate (0.30 lbs/MMBtu) was 24% lower than the national average of 0.40 lbs/MMBtu. Similarly, Texas's NOx emission rate (0.10 lbs/MMBtu) was 42% below the national average of (0.16 lbs/MMBtu). These data are shown on Exhibit 1.

- Indeed, EPA's annual SO₂ and NOx budgets for Texas exceed its authority (and are arbitrary on their face) because they are well below the amount of emissions that EPA itself concluded in the proposed rule would *not* cause any downwind significant contribution to nonattainment. In the proposed rule, EPA modeled Texas's downwind contribution to be below the "significance" level at an annual SO₂ emissions rate of 327,873 tons and an annual NOx rate of 159,738 tons for EGUs. 75 Fed. Reg. 45,210, 45,241-42 (Aug. 2, 2010). It is illogical that a reduction to 243,954 tons SO₂ and 133,595 tons NOx (the annual budgets that EPA seeks to impose on Texas) could be necessary to eliminate a "significant contribution" that did not exist at the higher emissions rates.
- As to Texas, EPA's FIP for the 1997 annual PM_{2.5} NAAQS is premature and not authorized by statute. Just a month before issuing the Final Transport Rule, the record shows that EPA remained uncertain as to its authority to issue a FIP for Texas. EPA's uncertainty was warranted—it does not have legal authority to impose this FIP in Texas without first providing the state the opportunity to address the alleged "significant contribution" that EPA has only just now identified.
- Relatedly, EPA oversteps its authority in the Final Transport Rule by giving Texas and Texas sources no real choice regarding how to comply. Given the overly aggressive annual emissions budgets and the impending compliance deadline of January 1, 2012, the rule will effectively require the shutdown or de-rate of existing EGUs in Texas. This unit-level regulation by EPA violates the federal-state structure of the Clean Air Act and § 110(a) in particular.
- EPA's newly-revealed "remedy case" for Texas is based on flawed data and assumptions resulting in overly stringent requirements for Texas. As just one example, EPA's model assumes that natural gas-fueled EGUs that have been retired or mothballed (including one of Luminant's EGUs that has been completely demolished) will come online in a matter of months. This is unrealistic and drives a "remedy" that is unjustified and impossible to achieve by the January 1, 2012 compliance deadline without severe consequences. The only way to ensure that Texas's budgets (including its variability limit) are not exceeded is for sources in Texas to de-rate or shut down, resulting in lost generation, threats to reliability and public health and safety, job losses, and devastating impacts to small, rural communities in Texas that depend on these facilities to sustain their local economies. EPA has failed to consider these severe and dangerous impacts.
- EPA has failed to consider the reliability impacts to the unique stand-alone Texas electric grid from mandating, beginning in a matter of months, dramatic SO₂ and NOx emissions reductions from current levels. Given the looming deadline and the practical constraints that EPA has placed on allowance trading, EPA has in essence mandated reduced generation in the state. ERCOT, the independent system operator for the Texas electric grid that serves the majority of Texas, has already expressed concerns about the Final Transport Rule's impacts on reliability, and EPA should stay and reconsider the rule on this basis alone, in order to give all affected parties the legally required opportunity to comment on this aspect of the rule.

EPA should remedy these deficiencies by staying the rule and the impending compliance deadlines and undertaking reconsideration with respect to Texas. Reconsideration would allow interested parties, including Luminant, to review, analyze, and comment on EPA's new significant contribution analysis and new annual SO₂ and NOx emissions budgets for Texas, the new seasonal NOx budget for Texas, and the new data and assumptions underlying them.

Background

The Final Transport Rule is, in part, EPA's response to the D.C. Circuit's remand of the Clean Air Interstate Rule ("CAIR") in *North Carolina v. EPA*, 531 F.3d 896 (D.C. Cir. 2008). EPA promulgated CAIR in 2005 to require states to reduce emissions of SO₂ and NOx that EPA determined significantly contribute to nonattainment and interfere with maintenance of the 1997 NAAQS for PM_{2.5} and/or ozone in a downwind state. 70 Fed. Reg. 25,162 (May 12, 2011). CAIR was a regional emissions allowance trading program that was intended to "provide states covered by the rule with a mechanism to satisfy their CAA section 110(a)(2)(D)(i)(I) obligations." CAIR set a region-wide emissions budget based on the application of "highly cost effective" controls and allocated the budget to states based on heat input. *North Carolina*, 531 F.3d at 904.

In *North Carolina*, the D.C. Circuit held that EPA had "no statutory authority" for CAIR, because "EPA did not purport to measure each state's significant contribution to specific downwind nonattainment areas and eliminate them in an isolated, state-by-state manner." 531 F.3d at 907-08 (emphasis added). The Court held that "according to Congress, individual state contributions to downwind nonattainment areas do matter." *Id.* at 907. Thus, "EPA can't just pick a cost for a region, and deem 'significant' any emissions that can be eliminated more cheaply." *Id.* at 918. Instead, EPA's program "must actually require elimination of emissions from sources that contribute significantly and interfere with maintenance in downwind nonattainment areas." *Id.* at 908. The Court vacated CAIR in its entirety, but later issued a ruling to remand CAIR, without vacatur, thus leaving CAIR in place until EPA promulgated a new rule to replace it. *North Carolina v. EPA*, 550 F.3d 1176 (D.C. Cir. 2008) ("*North Carolina II*").

While in part a response to *North Carolina*, the Final Transport Rule is more than simply an adjustment to CAIR. CAIR addressed EPA's 1997 annual and 24-hour PM_{2.5} NAAQS. *North Carolina*, 531 F.3d at 903. The Final Transport Rule, in contrast, also addresses EPA's subsequent 2006 revision of the 24-hour PM_{2.5} NAAQS, which lowered the standard from 65 to $35 \,\mu\text{g/m}^3$. 75 Fed. Reg. at 45,219. EPA's 2006 revision of this NAAQS is the driver of the more stringent emissions limitations in the Final Transport Rule. *Id.* at 45,342 ("[T]here is no case where the annual standard drives the reduction deeper than would the 24-hour standard alone.").

EPA published its proposed new rule on August 2, 2010. 75 Fed. Reg. at 45,210. EPA proposed to limit SO₂ and NOx emissions from EGUs in 32 states in the eastern United States based on its finding that such emissions contribute significantly to nonattainment or interfere with maintenance of one of three NAAQS in one or more downwind states. *Id.* at 45,212. The

⁷ Section 110(a)(2)(D)(i)(I) provides that "[e]ach such [state] plan shall—(D) contain adequate provisions—(i) prohibiting ... emissions activity within the State from emitting any air pollutant in amounts which will—(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard[.]" 42 U.S.C. § 7410(a)(2)(D)(i)(I).

three NAAQS considered by EPA were 1) the annual average PM_{2.5} NAAQS issued in 1997; 2) the 24-hour average PM_{2.5} NAAQS issued in 2006; and 3) the ozone NAAQS promulgated in 1997. *Id*.

With respect to the two PM_{2.5} NAAQS, EPA chose to address upwind states' contribution by requiring reductions of SO₂ and NOx emissions from EGUs. EPA used a two-step process to determine which states to include and how much SO₂ and NOx emissions EGUs in those states would be required to eliminate. First, EPA used air quality modeling "to quantify individual states' contributions to downwind nonattainment and maintenance sites." Id. EPA used the Comprehensive Air Quality Model with Extensions ("CAMx") to model air quality for four scenarios: 1) a 2005 base year; 2) a 2012 base case with "no CAIR;" 3) a 2014 base case with "no CAIR;" and 4) a 2014 control case that reflected the emissions reductions from the proposed state budgets. *Id.* at 45,238.8 EPA used the modeling for 2005 as the base year for projecting air quality for each of the three future year scenarios. Id. It used the 2012 base case modeling "to identify future nonattainment and maintenance locations and to quantify the contributions of emissions in upwind states" to PM_{2.5} concentrations at those locations. *Id.* If a state's emissions were modeled to contribute "greater than 1 percent of the relevant NAAQS" at any downwind site in future years, the upwind state and the downwind site were considered "linked." Id. If a state's contribution did not exceed the threshold, its contribution was "found to be insignificant." Id. at 45,214.

If a state was found to be linked, EPA would move to the second step, which "identifies the portion of each state's contribution" that constitutes its significant contribution and interference with maintenance by using what EPA called "maximum cost thresholds, informed by air quality considerations." *Id.* at 45,233. EPA further broke this second step down into a four-step process. *Id.* at 45,272. In Step 1, "EPA developed a set of cost curves that show, at various cost increments, the available emissions reductions for EGUs in a state." *Id.* at 45,272. "EPA used IPM to identify costs for reducing [SO₂ and NOx] emissions from EGUs by modeling emissions reductions available at multiple cost increments." *Id.* At Step 2, EPA says it "uses an air quality assessment tool [AQAT] to estimate the impact of the upwind emissions reductions on downwind ambient concentrations." *Id.* at 45,273. At Step 3, EPA "examines the information developed in the first two steps to identify potential cost thresholds. It then uses a multi-factor assessment to identify which cost threshold or thresholds should be used to quantify states' significant contribution and interference with maintenance." *Id.* at 45,274. EPA claims Step 3 "responds" to the D.C. Circuit's holding in *North Carolina*. *Id.* At Step 4, EPA enshrines the reductions into state budgets. *Id.*

⁸ EPA used the National Emission Inventory ("NEI") with "significant augmentations" to develop the 2005 base case emissions that was used in the CAMx modeling. *Id.* at 45,239. EGU emissions in the 2012 and 2014 future years were projected using the Integrated Planning Model ("IPM"), which is a "multiregional, dynamic, deterministic linear programming model of the U.S. electric power section." *Id.* at 45,243.

In the proposed rule, EPA used this methodology to conclude that EGUs in the State of Texas were not significantly contributing to nonattainment or interfering with maintenance of either the annual or 24-hour PM_{2.5} NAAQS in any downwind State. 75 Fed. Reg. at 45,255. As modeled by EPA, Texas EGUs' largest downwind contribution to nonattainment was 0.13 μ g/m³ as to the annual PM_{2.5} standard (below EPA's 0.15 μ g/m³ threshold for inclusion) and 0.21 μ g/m³ as to the 24-hour standard (below EPA's 0.35 μ g/m³ threshold for inclusion). *Id.* at 45,255, 45,261. Thus, EPA did not propose to include Texas EGUs in the PM_{2.5} aspect of the FIP and thus did not propose to regulate Texas EGUs in the annual program. *Id.* at 45,282. Accordingly, EPA did not propose an annual emissions budget for SO₂ or NOx for Texas. *Id.* at 45,291.

EPA did, however, request comment on a specific issue with respect to Texas. In the proposed rule, EPA requested comment on the "possibility" that emissions in non-covered states might increase based on changes in coal prices, prompting EGUs in the non-covered states to begin burning coal with higher sulfur content. 75 Fed. Reg. at 45,284. EPA speculated that "[i]f these price effects took place and if the rule is finalized as proposed, sources in states not covered by the proposed rule might choose to use higher sulfur coals. Increased use of such coals could thus increase SO₂ emissions in those states." *Id.* "For this reason, EPA [took] comment on whether Texas should be included in the program as a group 2 state." *Id.*

EPA's Administrator signed the final rule on July 6, 2011. As to Texas, EPA abandoned the possible "reason" for Texas's inclusion for which it sought comment. Apparently, further analysis showed that Texas was not among states whose emissions would increase based on changes in coal prices, if they were not included in the rule. FTR at 207. Instead, EPA reversed its prior decision that Texas EGUs were not "significantly contributing" to downwind nonattainment. EPA now determined, purportedly using new CAMx modeling and the four-step methodology from the proposed rule, that emissions from Texas EGUs will contribute significantly to nonattainment of the annual and daily PM_{2.5} NAAQS in 2012 at a single monitor in Madison County, Illinois—the Granite City monitor, which is located 470 miles from the nearest Texas power plant. *See* Exhibit 2. EPA predicted Texas's contribution to this receptor would be 0.18 μg/m³ (i.e., 0.03 μg/m³ above the 0.15 μg/m³ "significance" level set by EPA). EPA went further to impose an annual emissions budget for Texas and Texas EGUs of 243,954 tons of SO₂ and 133,595 tons of NOx per year, beginning on January 1, 2012, based on a purported \$500 per ton cost threshold for both. *Id.* at 235 (Table VI.D-3).

Reasons that EPA Should Convene a Reconsideration Proceeding as to Texas

Luminant requests that EPA convene a proceeding pursuant to 42 U.S.C. § 7607(d)(7)(B) to reconsider its new "significant contribution" analysis for Texas and its resulting decision to impose an annual PM_{2.5} FIP on the State; its newly-announced annual emissions budgets for both SO₂ and NOx and allowance allocations for Texas EGUs; and the new data and analysis in the Final Transport Rule that EPA claims support them.

Under the Clean Air Act, the Administrator "shall convene a proceeding for reconsideration of the rule" if the person raising the objection makes two showings: 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 generally in Section I and specifically with respect to each substantive issue raised below, it was impracticable to raise the issues in this reconsideration request during the public comment period since EPA did not make the modeling information, its rationale for including Texas, or the annual emissions budgets available until issuance of the final rule. In addition, information about the attainment and status of Madison County, Illinois did not become available until after the close of the public comment period. The issues below are of central relevance to the outcome of the rule both in terms of Texas's inclusion in the annual emissions program as a threshold matter and, if included, the level of its annual SO₂ and NOx budgets. Because both prerequisites are met, EPA "lacks 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 Luminant to Comment Because the Proposed Rule Addressed Neither the Basis for Including Texas in the Final Rule, nor a Proposed Remedy for Texas

As to Texas, the Final Transport Rule is a significantly different rule from the proposed rule and not the logical outgrowth of it. For regulations promulgated under the Clean Air Act to which 42 U.S.C. § 7607(d) applies, EPA must follow more stringent notice and comment requirements in addition to those contained in the Administrative Procedure Act ("APA"). 42 U.S.C. § 7607(d)(3). See also Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 518-19 (D.C. Cir. 1983) ("Clean Air Act § 307(d)(3) requires a much more detailed notice of rulemaking [than does APA 553(b)(3).]").

Thus, the Clean Air Act, in contrast to the APA, requires that the EPA both "issue a proposed rule" and "give a detailed explanation of its reasoning at the 'proposed rule' stage as well [as in the final rule]." *Small Refiner Lead Phase-Down Task Force*, 705 F.2d at 519. The Clean Air Act also requires, *inter alia*, 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) 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) ("All documents which become available after the proposed rule has been

published and which the Administrator determines are of central relevance to the rulemaking shall be placed in the docket as soon as possible after their availability.").

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, United Mine Workers of Am. v. Mine Safety and Health Admin.*, 407 F.3d 1250, 1259-60 (D.C. Cir. 2005). "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) (citing *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 393 (D.C. Cir. 1973)).

While EPA may promulgate a rule that is different from its prior proposals, it may not finalize its "unexpressed intentions." *Shell Oil v. EPA*, 950 F.2d 741, 751 (D.C. Cir. 1991). Where the final rule represents a "marked shift in emphasis" and is not implicit in the proposal, it is EPA's duty, not the public's, to anticipate a possible change and "to address it in its proposed regulations." *Id.*; *see also Int'l Union*, 407 F.3d at 1260 (final rule which is "surprisingly distant" from proposal is not a logical outgrowth). Interested parties are not expected to foresee EPA's "abandoning [its] proposed regulatory approach based on empirical research . . . simply because [it] invited commentary on a proposed rule that included a [very different approach]." *Id.*

EPA has violated these principles here as to Texas. Not only has EPA changed its conclusion as to whether Texas should be included in the rule, it has done so based on a rationale that is completely different from the limited rationale on which it sought comment for Texas. EPA pointed commenters down one path, and then abruptly took another path. EPA also produced annual emissions budgets for Texas for the first time in the final rule, where none appeared in the proposed rule. This is unprecedented in EPA's prior interstate transport rulemakings, in which EPA has always proposed a state's emissions budget for comment before finalizing it. EPA must remedy these deficiencies by convening a reconsideration proceeding as to Texas.

A. EPA has completely changed its analysis of Texas's "significant contribution" as between the proposed and final rule such that meaningful comment was not possible

In its proposed rule, EPA concluded that EGUs in the State of Texas were <u>not</u> significantly contributing to nonattainment or interfering with maintenance of either the annual or 24-hour PM_{2.5} NAAQS in any downwind State. 75 Fed. Reg. at 45,255. Texas EGUs' largest downwind contribution to nonattainment was 0.13 μ g/m³ as to the annual PM_{2.5} standard (below EPA's 0.15 μ g/m³ threshold for inclusion) and 0.21 μ g/m³ as to the 24-hour standard (below EPA's 0.35 μ g/m³ threshold for inclusion). *Id.* at 45,255, 45,261. Because EPA determined that Texas's contributions did not meet the requisite thresholds, EPA did not propose to include

Texas EGUs in the annual or 24-hour $PM_{2.5}$ aspect of the FIP and thus did not propose to regulate them in the annual program.

The only issue that EPA sought comment on with respect to Texas was the "possibility" that emissions in some states, including Texas, might increase after implementation of the Final Transport Rule, based on EPA's speculation about potential changes in coal prices and potential resulting SO₂ emissions increases. 75 Fed. Reg. at 45,284. EPA made clear that it was seeking comments "on whether Texas should be included in the program" as a group 2 state "[f]or this reason"—i.e., due to speculation about changes in coal prices leading to possible SO₂ emissions increases. *Id.* (emphasis added). On its narrow hypothetical, EPA received ample comment that the single concern it identified was unwarranted. And EPA apparently conducted further analysis after the close of the public comment period and determined that Texas was not one of the states whose emissions might increase based on changes in coal prices if it were not included in the rule. FTR at 207. EPA abandoned this "reason" in the Final Transport Rule, and does not offer it to justify Texas's inclusion. Accordingly, as EPA concedes, the comments that it solicited as to Texas are "no longer relevant." Response to Comments at 562 ("EPA notes that Texas is included in the final rule as a result of the state's contributions to down wind receptors in the updated base case modeling, thus, the comments on whether SO2 emissions in Texas might increase if the state were not covered (as was projected in the modeling for the proposal) are no longer relevant."). Obviously, if the comments EPA solicited are irrelevant to the final rule, then comments that are relevant to the final rule—which EPA did not solicit—could not have been raised during the comment period because the grounds for those comments arose after the public comment period closed.

Moreover, EPA's speculation about Texas in the proposed rule was based on analysis using EPA's simplified air quality assessment tool or "AQAT," not CAMx modeling. 75 Fed. Reg. at 45,284. The Final Transport Rule, however, does not rely upon the AQAT method to justify including Texas (which was the basis on which EPA sought comment as to Texas in the proposal), but instead uses substantially revised CAMx modeling to predict that Texas will significantly contribute to downwind nonattainment. FTR at 201. The Final Transport Rule now concludes, based on CAMx, that emissions from Texas EGUs will contribute significantly to nonattainment of the annual and daily PM_{2.5} NAAQS for a single monitor in Madison County, Illinois. This is the exact opposite conclusion that EPA reached using CAMx in the proposed rule. 75 Fed. Reg. at 45,255, 45,261.

⁹ Thus, even if it would have been possible to divine from the proposed rule EPA's intent to switch to a new rationale to include Texas (i.e., one using CAMx), EPA did not provide the tools necessary for the public to develop meaningful comments on Texas's alleged significant contribution. As OMB's interagency report recognizes, EPA's "modeling results used in the final rule are substantially different than those in the original August 2, 2010 Proposed Rule and subsequent notices." OMB Summary of Interagency Working Comments at 11. This is at least in part due to the fact that EPA made many substantive changes to both its CAMx modeling and AQAT. *See*, *e.g.*, FTR at 102-03, 145, 196-200 ("EPA made significant improvements to the air quality assessment tool").

EPA thus requested comment on one rationale for including Texas, and then finalized a rule using an entirely different rationale—a classic bait-and-switch. EPA changed both the method of analysis and the outcome. EPA could have easily provided the public with updated information about its analysis for Texas through a supplemental notice. It issued three Notices of Data Availability ("NODA") after the proposed rule, but none of them disclosed any data or model runs justifying Texas's inclusion or indicated that EPA was considering developing a Texas budget. By failing to disclose its new analysis and supporting information for Texas as soon as that information became available, EPA violated § 307(d)(4)(B)(i). EPA has used "the rulemaking process to pull a surprise switcheroo on regulated entities," including Luminant. *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 sent commenters down the wrong track, and, 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 Texas.

B. EPA did not propose annual emissions budgets for Texas, in contrast to every other state that has been given a final budget in this and other EPA interstate transport rulemakings

In addition, and of critical importance, EPA did not propose or even discuss in its proposed rule what emissions budgets would apply to the State of Texas if it were to be included in the annual program; in contrast, it proposed a very specific budget for every other state now included in the Final Transport Rule. 75 Fed. Reg. at 45,291, 45,294. This is not surprising considering the fact that EPA's own findings showed that Texas did not significantly contribute to nonattainment or interfere with maintenance of either PM_{2.5} NAAQS in any downwind area. The only logical conclusion to draw from this was that, should EPA change its mind to include Texas, it would propose an emissions budget for comment—not issue budgets for the first time in a final rule. This, in fact, is what EPA has appropriately done for six other states that EPA did not include in the proposed rule for ozone but is now proposing to include. For these six other states, EPA has issued a supplemental notice of proposed rulemaking ("SNPR") and is accepting public comment on the particular issues involved in those states' inclusion in an ozone FIP. 76 Fed. Reg. 40,662 (July 11, 2011). There is no good reason that EPA cannot do the same for Texas as to PM_{2.5}, and indeed EPA has offered no such reason.¹⁰

EPA's position that the state budgets it published in the proposed rule are merely "illustrative" is not credible and appears to be a belated attempt to justify EPA's unprecedented

¹⁰ Apparently, EPA intended to include Texas in a SNPR at least with respect to the 24-hour PM_{2.5} NAAQS, but, for no obvious reason, changed its mind at the last minute before signing the Final Transport Rule. See Part of E.O. 12866 Review Pertaining to Final Transport Rule, Document EPA-HQ-OAR-2009-0491-4552 at 36 (June 16, 2011 draft of preamble stating that "EPA is also requesting comment, in a supplemental notice of proposed rulemaking, on its conclusion that Texas also significantly contributes to nonattainment or interferes with maintenance of the 24-hour PM_{2.5} NAAQS in another state.").

decision here to finalize state emissions budgets without taking any public comment on them. FTR at 29-30. Moreover, this post hoc rationalization directly contradicts EPA's repeated assertion in the proposed rule that it was using a "state-specific" approach to address the D.C. Circuit's holding in *North Carolina*. *See*, *e.g.*, 75 Fed. Reg. at 45,290. In fact, there was nothing specific at all to Texas's annual budget in the proposed rule.

The budgets are the critical and operative aspect of the rule, and EPA has always treated them that way. In prior transport rulemakings, EPA has proposed a specific budget for every state included in the final rule and allowed for public comment on those budgets. For instance, EPA's final NOx SIP Call created an emission allowance cap-and-trade program. In that rule, EPA only finalized state emission budgets for states for which it had proposed emission budgets in the proposed rule. Compare 62 Fed. Reg. 60,318, 60,361 (Nov. 7, 1997) with 63 Fed. Reg. 57,356, 57,439 (Oct. 27, 1998). Accordingly, each state included in that final rule was provided an equal opportunity to review and comment on this aspect of EPA's NOx SIP Call program. Similarly, for EPA's NOx and SO₂ cap-and-trade program in CAIR, all states receiving final annual SO₂ and annual NOx budgets were provided with proposed budgets in EPA's proposed rule. Compare 69 Fed. Reg. 4,566, 4,619-4,621 (Jan. 30, 2004) with 70 Fed. Reg. 25,162, 25,230-25,231 (May 12, 2005). EPA's deviation from its consistent past practice in this instance demonstrates the inadequacy of the proposed rule in providing fair notice as to Texas. Given EPA's past practice, Texas stakeholders' only reasonable expectation was that EPA would issue a supplemental notice providing proposed budgets for Texas before it sought to finalize them. There is no reason that EPA could not have done so with respect to Texas (or do so now, as it has for six other states).

Not only did Luminant have no notice that EPA was developing annual budgets for Texas for SO₂ and NOx, there was no basis to comment on the details of such budgets. As to Texas in particular, EPA did not publish any variability analyses, individual unit allocations, new unit set asides, AQAT results, modeling inputs and assumptions, and other information that EPA claims is relevant to annual emissions budgets. Nor could Luminant comment on the impacts of such budgets on its operations, electric reliability, jobs for Texans, electricity prices, or consequential effects on the overall economy—which, as discussed below, are substantial. Luminant, on its own, simply cannot generate emissions budgets out of thin air, nor should it have to guess at budgets that EPA might propose. The agency's analysis and calculations as to Texas were not provided for public comment, thus denying commenters the opportunity to provide meaningful input. Solite Corp. v. EPA, 952 F.2d 473, 499-500 (D.C. Cir.1991) (ordering EPA to conduct reconsideration and provide additional notice and comment based on late disclosure of data); 42 U.S.C. §§ 7607(d)(3)(A), 7607(d)(4)(B)(i). As the D.C. Circuit aptly stated in a similar situation, "something is not a logical outgrowth of nothing." Envt'l Integrity Project, 425 F.3d at 996 (internal citation and quotation omitted). That is certainly the case here—EPA's inclusion of Texas in the final rule as it pertains to PM_{2.5} and its SO₂ budget of 243,954 tons and annual NOx budget of 133,595 tons for Texas are not the logical outgrowth of a proposed rule that did not include Texas and proposed no budgets at all for Texas. Further, the Final Transport Rule failed to provide any justification—let alone a reasoned justification—for treating Texas differently than every other state with respect to proposed emissions budgets. This constitutes

both an arbitrary departure from past practices, FCC v. Fox Television Stations, Inc., 129 S. Ct. 1800, 1811 (2009); Davila-Bardales v. INS, 27 F.3d 1, 5-6 (1st Cir. 1994), and a fundamental failure to treat similarly situated parties the same, Indep. Petroleum Ass'n v. Babbitt, 92 F.3d 1248, 1260 (D.C. Cir. 1996); ANR Pipeline Co. v. FERC, 71 F.3d 897, 901 (D.C. Cir. 1995).

II. EPA's new annual emissions budgets for Texas exceed EPA's authority under Section 110 of the Clean Air Act and run afoul of the holding in *North Carolina*

Not only did EPA fail to give adequate notice of its annual emissions budgets for Texas, the budgets that it has finalized overstep the agency's statutory authority for two independent, but related, reasons. First, Texas is not contributing to nonattainment with the 1997 PM_{2.5} NAAQS at the downwind "receptor" that EPA has identified for Texas. Actual air quality data show that this monitor—the Granite City monitor in Madison County, Illinois—is, in fact, in attainment. Nor is it reasonable to predict that this monitor will be in nonattainment in just a few short months, as EPA has modeled. Second, the annual SO₂ and NOx emissions budgets that EPA has imposed on Texas far exceed in their requirements any prohibition of Texas's miniscule "significant contribution" and instead require substantially deeper emissions cuts, and therefore go beyond EPA's limited statutory authority to address interstate transport.¹¹

A. Texas is not contributing, and will not contribute, to nonattainment in Madison County, Illinois

Texas is included in the annual emission program in the Final Transport Rule for one reason—EPA's modeling that predicts Texas will contribute to nonattainment with the 1997 annual PM_{2.5} NAAQS at one, and only one, downwind receptor—the Granite City monitor in Madison County, Illinois. FTR at 152. The amount of contribution attributable to Texas in EPA's modeling is miniscule—just 0.03 μ g/m³ above EPA's significance level (0.18 μ g/m³ v. 0.15 μ g/m³). *Id.* at 149.

EPA's statutory authority to address this contribution through mandatory revisions to Texas's SIP or a FIP derives from § 110 of Clean Air Act. Section 110 "governs the interplay

¹¹ Because EPA's new "significant contribution" analysis, annual emissions budget for Texas, and AQAT results for Texas were not disclosed until the Final Transport Rule, Luminant did not raise, and could not have raised, the issues raised in this section during the public comment period. In fact, it appears that EPA did not disclose its AQAT analysis and results for any states in time for the public to comment on them. As discussed above, 42 U.S.C. § 7607(d)(3) and § 7607(d)(4)(B)(i) require EPA to disclose the factual data and methodologies upon which its rules are based. Its failure to do so is a violation of the notice and comment provisions applicable to Clean Air Act rulemakings. Further, EPA's determination that Madison County, Illinois, is in attainment is ground for reconsideration that arose after the close of the public comment period.

 $^{^{12}}$ Nor does EPA find that Texas is "interfering with maintenance" at any downwind PM_{2.5} receptor.

between the states and EPA with respect to the formulation and approval of [SIPs]." *Virginia v. EPA*, 108 F.3d 1397, 1406 (D.C. Cir. 1997). Sections 110(a)(2)(H) and 110(k)(5) in particular provide that states can be required to revise SIPs only when existing provisions are found "substantially inadequate," and then only "as may be necessary" to attain and maintain the NAAQS. 42 U.S.C. §§ 7410(a)(2)(H) & (k)(5). As the D.C. Circuit has explained in reviewing EPA's prior interstate transport rules, EPA is a creature of statute and has only the authority conferred upon it by statute—namely, the Clean Air Act. *North Carolina*, 531 F.3d at 922 (quoting *Michigan v. EPA*, 268 F.3d 1075, 1081 (D.C. Cir. 2001)).

Here, a FIP addressing the interstate transport of emissions from Texas is not necessary to attain or maintain the NAAQS in Madison County, Illinois, because that area is already in attainment. On May 23, 2011, EPA published in the *Federal Register* its "final action determining that the Saint Louis fine particle (PM_{2.5}) nonattainment area [i.e., the nonattainment area that includes Madison County] ... has attained the 1997 annual PM_{2.5} National Ambient Air Quality Standard." 76 Fed. Reg. at 29,652. As a result, because the sole receptor identified for Texas is attaining the 1997 PM_{2.5} NAAQS, the Texas SIP is neither "substantially inadequate" nor are further reductions "necessary" to address contributions to nonattainment of air quality standards. This actual data (which was verified and acted on by EPA) further calls into question the validity and reliability of EPA's modeling in the Final Transport Rule that predicts this monitor will be in nonattainment in just a few months as a result of Texas emissions, and EPA has not explained the discrepancy between its modeling and real world conditions.

Nor is it reasonable to predict that Madison County will be in nonattainment due to interstate transport from Texas in just a few short months. Fine-scale modeling, not considered by EPA in the Final Transport Rule, has determined that any nonattainment modeled in 2012 for the Granite City monitor is the result of emissions from a large local steel mill, not upwind emissions from Texas. The Granite City monitor itself is an anomaly—it is the only one of five monitors in the Madison County area that is predicted to be in nonattainment for the annual PM_{2.5} NAAQS by EPA's modeling; all the other monitors modeled in attainment.¹³ The reason, according to fine-scale modeling conducted as part of an EPA state and local focus group, is a local U.S. Steel mill—not "regional transport" from Texas.¹⁴ The report on this modeling explained:

A somewhat more refined approach to wind direction analysis at the Granite City monitoring site evaluated separate local and regional components of total $PM_{2.5}$ mass. $PM_{2.5}$ measurements from the Granite City site were compared to measurements at a second site in downtown St. Louis to identify time periods

¹³ See Exhibit 3. It defies logic that Texas's emissions from 470 miles away could impact just one monitor in Illinois but not others just a few miles away from it, and EPA does not explain how this could be the case. Clearly, local sources are the problem, not interstate transport.

¹⁴ Assessment of Local-Scale Emissions Inventory Development by State and Local Agencies, U.S. EPA, Research Triangle Park, at 3-6, 3-7 (Oct. 2010) (Exhibit 4).

when the Granite City site showed "excess" PM_{2.5} concentrations above levels that would be attributable to regional transport and urban sources (e.g., motor vehicles). Measurements from these time periods were combined with surface meteorological data to identify source regions contributing to the excess PM_{2.5}. This analysis showed that excess PM_{2.5} was observed at the Granite City site when winds were from the south and southwest, indicating impacts from a large steel mill in the vicinity.¹⁵

An examination of the modeling results shows that the emissions from this local source are the reason this monitor would model in nonattainment. The modeling projected a $PM_{2.5}$ design value for this Madison County monitor of 15.23 $\mu g/m^3$ with the U.S. Steel mill included (i.e., nonattainment), but a value of 13.55 $\mu g/m^3$ (i.e., attainment) with this source "zeroed out." The conclusion was that this U.S. Steel facility was "primarily responsible for excess emissions." *Id.* This is further demonstrated by data collected at the monitor and the steel mill from 2005-2009. When the mill reduced production in 2009, 17 the Granite City monitor was easily in attainment with the 1997 $PM_{2.5}$ NAAQS, as the following table illustrates:

Parameter/Year	2005	2006	2007	2008	2009
U.S. Steel GCW PM Emissions	1,119	1,122	1,103	1,039	372.8
$(tpy)^{18}$					
PM _{2.5} mean at Granite City monitor	18.2	16.3	15.2	15.7	11.3
$(\mu g/m^3)^{19}$					

¹⁵ *Id*.

¹⁶ Jeffrey Sprague, *Granite City, IL PM2.5 Nonattainment: Regional and Local-Scale Modeling, Data Analysis, and Emissions Control Developments*, Illinois EPA (Bureau of Air), July 27, 2010, *available at* http://www.epa.gov/ttnchie1/local_scale/ as an appendix to the October 2010 Assessment of Local-Scale Inventory Development by State/ Local Agencies, Final Report.

Memorandum of Understanding ("MOU") with the Illinois Environmental Protection Agency "with the specific intent of reducing the emissions of particulate matter_{2.5} (PM2.5)," and a revised Title V operating permit. *See* Exhibit 5; U.S. Steel Corp., Title V- Clean Air Act Permit Program (CAAPP) Permit- Revised, I.D. No. 119813AAI, May 2, 2011, *available at* http://yosemite.epa.gov/r5/in_permt.nsf/33cf5ec06b4d2f1d8625763f0052ba7c/ba4fceebf2e510e8 862578db00565183!OpenDocument. Despite its commitment to consider all non-CAIR enforceable emissions limitations in its modeling, EPA failed to consider in its base case the emissions reductions that will result from U.S. Steel's MOU with Illinois. If these reductions were properly reflected in EPA's base case modeling, the Granite City monitor would likely monitor in attainment, eliminating any basis for including Texas in the Final Transport Rule.

¹⁸ Source: Statement of Basis for a Planned Revision of the Clean Air Permit Program (CAAPP) Permit for: U.S. Steel Corporation, Granite City Works, at 10 (Exhibit 6).

This monitor plainly is not a reasonable choice by which to judge the effects of upwind emissions, and it should not have been used as a receptor in the Final Transport Rule. At a minimum, given the change in information since EPA conducted its modeling, EPA should and must re-open the public comment period to consider the current attainment status of Madison County and this additional fine scale modeling for the Granite City monitor and to adjust its modeling and assumptions accordingly to determine if Texas will, in fact, "significantly contribute" to downwind nonattainment. 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 does, however, have 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) ("[A]n agency may be forced by a reviewing court to institute 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.").

Finally, not only has EPA failed to account for local sources at the Granite City monitor, its base case overstates Texas's upwind emissions for two reasons. First, EPA's decision to discount post-2005 emission reductions and air quality improvements resulting from CAIR, see 75 Fed. Reg. at 45,233/3, is an illogical and unreasonable policy decision. See Comments of UARG, Document EPA-HO OAR-2009-0491-2756.1, at 50-53. Second, although EPA claims that its baseline modeling considered "reductions made to comply with permanent limitations" (FTR at 74), EPA failed to follow this methodology for Texas. For example, EPA omitted from its base case for Texas two flue gas desulfurization systems ("scrubbers") on the Lower Colorado River Authority's Fayette Unit 1 and Unit 2, and thus Texas's emissions were overstated by approximately 20,000 tons. These scrubbers were not installed to meet CAIR requirements, but reportedly were "part of a deal with regulators to replace tubes lining the boiler that were corroding from constant wear."²⁰ Thus, even under its own "CAIR-free" methodology, EPA erred in not including the reductions from those scrubbers in its base case, casting further doubt on EPA's prediction that Texas EGUs will "significantly contribute" to downwind nonattainment.

B. The drastic emissions reductions required of Texas exceed the "significant contribution" modeled by EPA and are therefore unlawful

Further, even if EPA's prediction that Texas will significantly contribute to nonattainment at the Granite City monitor is correct, EPA's annual SO_2 and NOx budgets impose limits that go beyond Texas's small contribution and therefore exceed the agency's statutory authority under $\S 110(a)(2)(d)(i)(I)$ of the Clean Air Act.

¹⁹ Source: Illinois Environmental Protection Agency, 2009 Annual Air Quality Report, at 56, *available at* http://www.epa.state.il.us/air/air-quality-report/2009/index.html.

²⁰ Asher Price, *LCRA adds scrubbers to clean sulfur dioxide from plant emissions*, Austin American-Statesman (Aug. 2, 2011), *available at* http://www.statesman.com/news/local/lcra-adds-scrubbers-to-clean-sulfur-dioxide-from-1681702.html.

Under § 110(a)(2)(d)(i)(I), even when it is "necessary" to require upwind states to address downwind nonattainment, EPA is not authorized to require reductions beyond the "amounts which will" "significantly contribute" to the downwind nonattainment. 42 U.S.C. § 7410(a)(2)(D)(i)(I). Section 110(a)(2)(D)(i)(I) provides that "[e]ach such plan shall—(D) contain adequate provisions—(i) prohibiting ... emissions activity within the State from emitting any air pollutant in amounts which will—(I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard[.]" *Id.* Accordingly, in *North Carolina v. EPA*, the D.C. Circuit found that EPA had "no statutory authority" for CAIR, because "EPA did not purport to measure each state's significant contribution to specific downwind nonattainment areas *and eliminate them in an isolated, state-by-state manner.*" 531 F.3d at 907-8 (emphasis added). The Court held that "according to Congress, individual state contributions to downwind nonattainment areas do matter." *Id.* at 907. Thus, "EPA can't just pick a cost for a region, and deem 'significant' any emissions that can be eliminated more cheaply." *Id.* at 918.

EPA's annual emissions budgets for Texas in the Final Transport Rule violate these statutory limitations. EPA, in effect, claims it is adhering to the Court's holding in *North Carolina* because it is placing states in two groups, not just one. FTR at 17-25, 175-83, 269-74. But the same problem persists. EPA has in fact used the same blunt instrument that the D.C. Circuit rejected in CAIR—uniform cost thresholds—to identify and mandate the amount of air pollution that a state must eliminate. And the result is even more impermissible—uniform controls across multiple states without any consideration of whether those controls, for any individual state, improperly go beyond eliminating that state's significant contribution to downwind nonattainment and therefore impose controls which EPA has no statutory authority to require. The result as to Texas is that the state is required to reduce well *below* the "amount" of its modeled significant contribution, even though EPA's *only* pertinent authority is to "prohibi[t] . . . emissions activity . . . in amounts which will . . . contribute significantly" to nonattainment." 42 U.S.C. § 7410(a)(2)(D)(i)(I).

At the same time, other states contributing to the Madison County, Illinois receptor are not required to reduce below their significant contribution at all but are instead allowed to continue to contribute downwind emissions above the significance levels. EPA identified eight other upwind states that also contributed significantly to nonattainment at that monitor (Indiana, Iowa, Kentucky, Michigan, Missouri, Ohio, Tennessee, and Wisconsin). FTR at 150-52. Based on their cost curves, EPA placed each of these states in either the SO₂ program's Group 1 or Group 2. Group 1 states are required to reduce their emissions to a level that would be achieved applying controls at \$2,300, and Group 2 states at \$500. But EPA does not require all of these states to eliminate their "significant contribution," as demonstrated by EPA's Air Quality Assessment Tool ("AQAT"). At Step 2 of its methodology, EPA says it uses AQAT "to estimate the impact of the upwind state reductions on downwind state air quality at different cost-per-ton levels." EPA ran AQAT for each downwind monitor, including Madison County, Illinois, to

²¹ Significant Contribution and State Emissions Budgets Final Rule TSD ("Significant Contribution TSD") at 2, Document EPA-HQ-OAR-2009-0491-4456 (posted July 11, 2011).

see what the ambient air quality at the monitor would be if each upwind state (and the host state) applied the cost controls for their respective group (i.e., Group 1 or 2). Significant Contribution TSD at 19.

However, EPA did not use the output of AQAT to determine if each State has eliminated its significant contribution to nonattainment (i.e., reduced its emission below 1% of the relevant NAAQS). Instead, it only looked at whether the downwind site would achieve attainment following the application of uniform cost controls in the upwind states. Significant Contribution TSD at 29 ("For annual PM_{2.5} in 2014[,] [n]o monitors are estimated to have remaining nonattainment problems at the \$2,300/ton SO₂ cost threshold."); FTR at 216 ("For Group 2 states, the air quality assessment tool projected that the SO₂ reductions at this first cost threshold assessed would resolve the nonattainment and maintenance problems for all of the areas to which the following states are linked: . . . Texas.") (emphasis added). Further, an examination of the AOAT results shows that, while the application of uniform cost reductions within the two groups is projected to result in no further attainment problems at the Granite City monitor in Madison County, Illinois, it does not result in each contributing state eliminating its significant contribution and results in some states (including Texas) over-reducing. Thus, at \$500/ton, Texas's contribution to the Madison monitor drops to 0.127 µg/m³ (from 0.18 µg/m³).²² other words, EPA's \$500/ton threshold is requiring Texas to overreduce to approximately 16% below the significance level $(0.15 \mu g/m^3)$. However, many of the other states that are modeled to significantly contribute to nonattainment at this Madison County monitor are not eliminating their significant contribution, even at the \$2,300/ton cost level. For example, even at \$2,300/ton, Indiana is still contributing 0.293 µg/m³; Illinois 0.612 µg/m³; and Missouri 0.642 µg/m³. Thus, EPA is <u>not</u> eliminating "air pollutant[s] in amounts which will—(I) contribute significantly to nonattainment." 42 U.S.C. § 7410(a)(2)(D)(i)(I). It is seeking instead to completely eliminate nonattainment in the downwind state through the application of uniform cost controls and overcontrolling in some states in order to enable it to undercontrol other states and more equitably (in EPA's view) spread the burden. That is not what § 7410(a)(2)(D)(i)(I) authorizes EPA to do—as the North Carolina decision confirms. 531 F.3d at 921 ("EPA's redistributional instinct may be laudatory, but section 110(a)(2)(D)(i)(I) gives EPA no authority to force an upwind state to share the burden of reducing other upwind states' emissions. Each state must eliminate its own significant contribution to downwind pollution.").

In short, Texas's minimal and borderline contribution cannot support EPA's massive required reductions. *See* Exhibit 7. The reductions do not address only the "amounts" of Texas emissions that significantly contribute to downwind nonattainment. In fact, using the more rigorous CAMx model in its proposed rule, EPA itself concluded that Texas would not significantly contribute to downwind nonattainment in any state at an SO₂ emission level of 327,873 tons annually. *See* 75 Fed. Reg. at 45,241, 45,255. EPA's 243,954 tons SO₂ budget

 $^{^{22}}$ See Annual PM $_{2.5}$ AQAT, Document EPA-HQ-OAR-2009-0491-4458 (posted July 11, 2011).

²³ The record as it stands now does not provide adequate support for *any* annual budgets to be set for Texas. EPA's modeling is itself internally inconsistent and unreliable. For

for Texas is clearly overcontrolling Texas sources. Moreover, given that this Madison County monitor is currently in attainment, the most that EPA could justify as a remedy is to cap Texas emissions at their 2010 levels—462,000 tons of SO₂ and 146,000 tons of NOx—which represent significant reductions achieved by Texas sources in the last fifteen years. Exhibit 1. EPA is not authorized to make Texas go further, just so a single monitor in Madison County can be *modeled* in attainment. The result is exactly what the Court rejected in *North Carolina*: "EPA can't just pick a cost for a region, and deem 'significant' any emissions that can be eliminated more cheaply." 531 F.3d at 918. Although EPA attempts to dress up its methodology here with lip service to each individual state's contribution, it is only repeating the mistake it made in CAIR.

III. As to Texas, EPA has not met the statutory prerequisites for a Federal Implementation Plan

Not only is EPA seeking to require more emissions reductions from Texas EGUs than §110 authorizes, it is doing so in a manner—by way of a Federal Implementation Plan ("FIP")—that further violates § 110. EPA has put the cart before the horse. The Clean Air Act requires that states first address nonattainment with the NAAQS within their own borders, and, only after that has occurred, does the statute authorize EPA to find that other states' SIPs are substantially inadequate to prohibit "significant contribution" to any remaining nonattainment in the downwind state. EPA's premature FIP displaces state authority under the statute and is contrary to the federal-state partnership that Congress established under the Act generally and with respect to interstate transport in particular.²⁴

example, EPA first modeled Texas's downwind contribution to be 0.13 µg/m³ at an annual SO₂ emissions rate of 327,873 tons. 75 Fed. Reg. at 45,255. Subsequent EPA modeling using AQAT found Texas's downwind contribution to be substantially the same (0.126 µg/m³) at a rate of 281,298 tons of SO₂ annually. *See* Annual PM_{2.5} AQAT, Document EPA-HQ-OAR-2009-0491-4458, Significant Contribution TSD at 15. This does not make sense. EPA has not explained how Texas could be modeled to have the same impact at such different emission levels. The only possible explanation is a flaw in EPA's modeling or methodology, perhaps with its new and untested AQAT. At a minimum, EPA must address this inconsistency and allow for full public comment on it.

The issues addressed in this section were raised generally with EPA during the public comment period by the Utility Air Regulatory Group, of which Luminant is a member and whose comments Luminant adopted, and Luminant raised questions about the timing and sequencing of EPA's FIP in general in its own comments. However, because EPA did not propose a FIP for Texas as to the PM_{2.5} NAAQS and did not specify the basis for a FIP as to Texas in the proposed rule, it was impracticable to raise the Texas-specific issues addressed here. Indeed, the rulemaking record shows that there was internal uncertainty as to EPA's FIP authority for Texas even as EPA was drafting the Final Transport Rule well after the close of the public comment period. As late as June 2011, EPA had intended to base its FIP for Texas on the 2006 PM_{2.5} NAAQS, but inexplicably changed its mind. *See Status of CAA 110(a)(2)(D)(i)(I) SIPs Final Rule TSD*, Document EPA-HQ-OAR-2009-0491-4297 (June 2011) (posted July 11, 2011).

Under the statute, states are given the primary responsibility for air pollution control from sources within their borders. See 42 U.S.C. § 7407(a); 42 U.S.C. § 7401(a)(3) ("[A]ir pollution prevention . . . is the primary responsibility of States and local governments."). EPA may rescind a state's authority over sources within its borders by issuing a FIP in only limited circumstances, i.e., only "after the Administrator—(A) finds that a state has failed to make a required submission . . . or (B) disapproves a State implementation plan submission in whole or in part." 42 U.S.C. § 7410(c) (emphasis added). Neither of these prerequisites has been met here.

Here, EPA claims to have the authority to issue a FIP for Texas under §110(c) as to the 1997 PM_{2.5} NAAQS. FTR 29-31.²⁵ EPA claims that a "finding of failure" it made in April 2005 with respect to this NAAQS started a "two-year clock" within which EPA was required to issue a FIP as to interstate transport. 75 Fed. Reg. at 45,226 (citing 70 Fed. Reg. 21,147 (Apr. 25, 2005)). The finding of failure is further premised on EPA's view that states were required to address interstate transport within three years of the issuance of the 1997 PM_{2.5} NAAQS and, thus, as of April 2005, "[s]tates should already have submitted [PM_{2.5}] SIPs that satisfied the section 110(a)(2)(D)(i) requirement related to interstate transport." 70 Fed. Reg. at 21,148. EPA is incorrect. As of April 2005, Texas had not failed to make a *required* submission as to the 1997 PM_{2.5} NAAQS (and neither has EPA disapproved Texas's submission²⁶), and thus the "two-year FIP clock" in § 110(c) was not and has not been triggered.

Specifically, § 110(a)(1), which sets the three-year deadline for state plan submittals that EPA relies on, only applies to a SIP's "implementation, maintenance and enforcement of

EPA's final basis for issuing a FIP as to Texas was not formulated until July 2011 and not made available to the public until after the Final Transport Rule was signed. See Status of CAA 110(a)(2)(D)(i)(I) SIPs Final Rule TSD, Document EPA-HQ-OAR-2009-0491-4527 (July 2011) (posted July 12, 2011).

the 1997 PM_{2.5} NAAQS is not well-founded. The Final Transport Rule only requires a FIP as to the 1997 PM_{2.5} NAAQS is not well-founded. The Final Transport Rule is a single rule designed to address both the 1997 PM_{2.5} NAAQS and the more stringent 2006 PM_{2.5} NAAQS simultaneously with the same annual emissions budgets. Given the manner in which EPA developed state budgets, using uniform cost curves, EPA cannot say that its budgets for Texas only address the 1997 PM_{2.5} NAAQS. In fact, EPA made clear in its proposed rule that the more stringent 2006 standard was the driver of state emissions budgets. 75 Fed. Reg. at 45,342 ("[T]here is no case where the annual standard drives the reduction deeper than would the 24-hour standard alone."). Because EPA simultaneously addressed both 1997 and 2006 PM_{2.5} NAAQS with a single budget for Texas, it was required to have FIP authority for both. EPA has not disapproved Texas's proposed SIP revision for the 2006 standard, and, as a result, it lacks authority to issue a FIP that in effect addresses that standard.

²⁶ In an October 2008 notice, EPA determined that Texas's infrastructure SIP submittal for 1997 PM_{2.5} NAAQS was administratively complete. 73 Fed. Reg. 62,902 (Oct. 22, 2008). But EPA has never acted to disapprove that submission.

[primary NAAQS] ... in each air quality control region (or portion thereof) within such State." 42 U.S.C. § 7410(a)(1) (emphasis added). Section 110(a) does not establish any deadline for submittal of SIPs that address areas outside of such state. The "good neighbor" provision in § 7410(a)(2)(D) deals with NAAQS attainment and maintenance in another state and is only properly considered after states have submitted SIP revisions to address the NAAQS within their own borders. Section 110(a)(1) confirms that the adequacy (or inadequacy) of a state's plan to eliminate significant contributions in other states can be addressed only after those other states have been required to address contributions of sources located within their own borders.

Accordingly, when EPA issued the 1997 PM2.5 NAAQS, Texas did not have an obligation to submit a SIP revision that addressed interstate transport within three years. The first order of business for all states was to address attainment of the 1997 PM2.5 NAAQS within their own borders. 42 U.S.C. § 7410(a)(1). And it was not until January 2005 that Madison County, Illinois, was designated as nonattainment with the 1997 PM2.5 NAAQS, thus triggering the State of Illinois' obligation to address the nonattainment through emissions reductions at sources in the state. Illinois' revision to its SIP to address the nonattainment then became due by January 2008. 42 U.S.C. § 7502(b). P

It was not until after that revision was due and evaluated that upwind states had any obligation to assess and remedy their "significant contribution." Under § 110, once a state

As EPA has explained regarding the Act's visibility protection program, "it is ... premature to determine whether or not State SIPs ... contain adequate provisions to prohibit emissions that interfere with measures in other States' SIPs," until those other states have adopted plans to implement the requirements of the Act for sources within their jurisdiction. *See* Memorandum from Director William T. Harnett, Air Quality Policy Division, OAQPS, "Guidance for State Implementation Plan (SIP) Submissions to Meet Current Outstanding Obligations Under Section 110(a)(2)(D)(i) for the 8-Hour Ozone and PM2.5 National Ambient Air Quality Standards" (August 15, 2006) at 9 ("§ 110(a)(2)(D) Guidance").

²⁸ This delay was the result of Congressional intervention. In 1998, reflecting the lack of existing $PM_{2.5}$ ambient monitoring data, Congress postponed the time by which EPA was required to designate areas of the country as either in attainment or nonattainment with the 1997 $PM_{2.5}$ NAAQS. Transportation Equity Act for the 21st Century (TEA-21), Pub. L. No. 105-178, \S 6102(c)(1) (June 9, 1998). Under this law, designations were to be made within one year after the states had collected three years of ambient $PM_{2.5}$ monitoring data. Following collection of the necessary data, EPA promulgated $PM_{2.5}$ area designations on January 5, 2005, which included designating Madison County, Illinois, as nonattainment for the first time. 70 Fed. Reg. 944, 969 (Jan. 5, 2005).

For attainment areas, EPA directed that state plans addressing 110(a)(2) criteria other than 110(a)(2)(D) be filed no later than October 2008. See 110(a)(2)(D) Guidance (Aug. 15, 2006), at 2; see also 72 Fed. Reg. 20.586, 20,599-600 (Apr. 25, 2007). The initial attainment date for the 1997 PM_{2.5} NAAQS was April 5, 2010. *Id.* at 20,600-3.

submits its § 110(a) SIP revision (according to EPA, those SIPs were due by October 2008), EPA is authorized to find that another state's SIP is "substantially inadequate" to address § 7410(a)(2)(D)(i)(I), and can issue a "SIP Call" to "require the contributing state to revise the plan as necessary to correct such inadequacies." *See* 42 U.S.C. § 7410(k)(5). This is the proper sequence under the statute and the one that EPA followed to address interstate transport in the "NOx SIP Call." There, EPA issued a SIP Call under § 110(k)(5) in 1998 only after the information about a state's "significant contribution" was available. *See Michigan v. EPA*, 213 F.3d 663, 669 (D.C. Cir. 2000). The statutory process requires notice and a timeline for the State to submit a revised SIP—it does not authorize an immediate FIP like the Final Transport Rule. The contrary approach taken by EPA in the Final Transport Rule, and EPA's interpretation of § 110(a)(1) underlying that approach, are contrary to the plain language of the statute.³⁰

In addition, the plain language of the statute does not allow EPA to rely on a six-year old "finding of failure." Under § 110(i), SIPs can be revised only as provided in §§ 110(a)(3) and (c). 42 U.S.C. § 7410(i). Section 110(c) authorizes issuance of a FIP "at any time within two years" after a "finding of failure," subject to certain conditions. *Id.* § 7410(c) (emphasis added). "At any time within" a two year period does not mean "at any time after the expiration of" that period.

Regardless of the adequacy of a "finding of failure" at the time it is issued, if the inadequacy in a state's plan on which the finding was based ceases to exist, EPA's authority to promulgate a FIP would similarly expire. In this regard, state plans and EPA regulations change and, as a result, air quality improves. Under the plain language of the statute, a "finding of failure" does not confer on EPA the authority to issue a FIP for all time and regardless of changes in air quality or other circumstances. Congress, in the Clean Air Act, provided an

³⁰ EPA's generic April 2005 "finding of failure" is inadequate to start a "FIP clock" for the additional reason that EPA is required to identify Texas's "significant contribution" before it can require Texas to revise its SIP under § 110(k)(5) or otherwise. Section 110(a)(1)(H) only requires that SIPs "provide for revision of such plan—(i) from time to time as may be necessary to take account of revisions of such national primary or secondary ambient air quality standard or the availability of improved or more expeditious methods of attaining such standard[.]" 42 U.S.C. § 7410(a)(2)(H) (emphasis added). When EPA originally made its April 2005 "finding of failure," it did so in conjunction with CAIR, which specifically identified each covered state's "significant contribution." CAIR gave states eighteen months to revise their SIPs to address their identified "significant contribution" before a FIP would be put in place. See 70 Fed. Reg. 25,162, 25,263 (May 12, 2005). Accordingly, EPA explained that: "The EPA does not expect States to make SIP submissions establishing emissions controls for the purpose of addressing interstate transport without having adequate information available to them." *Id.* at 25,265 n.116. Here, EPA did not provide any information to Texas about its significant contribution until the Final Transport Rule was published simultaneously with its FIP in July 2011. This sequencing puts the cart before the horse and is contrary to the statutory requirement that states first address nonattainment within their own borders before it can be determined if upwind states are "significantly contributing" to downwind nonattainment.

explicit temporal limit on EPA's FIP authority. The explicit limitation on EPA's authority to promulgate a FIP to "any time within" a two year period recognizes that § 110(c) findings become stale, and that the primacy of states regarding air pollution control at its source would be nullified if a "finding of failure" provided EPA unlimited authority to override state planning decisions. This temporal limitation, of course, does not mean that EPA can never issue a FIP after the two year period expires; rather, it means that before a FIP can be issued, EPA must make a new finding of failure based on then-current information.

This temporal limitation is critical in the present situation, as the facts on the ground have changed dramatically since April 2005. If EPA had followed the statutory procedure here, it would have necessarily considered updated information regarding the Texas SIP (including Texas's PM_{2.5} SIP submittal that EPA has found "administratively complete" in 2008) and the fact that Madison County, Illinois, has been found by EPA to be in attainment for the 1997 PM_{2.5} NAAQS. This new information does not support issuance of a current finding of failure. For all of these reasons, EPA's April 2005 finding of failure cannot serve as a predicate for issuing a FIP to Texas as part of the Final Transport Rule, and EPA has no other basis under § 110 to do so.

IV. EPA's annual budgets for Texas give Texas and Texas EGUs no real choice in how to comply

The Final Transport Rule further usurps Texas's primary authority under the Clean Air Act by dictating how individual units must respond in order to comply. Although EPA maintains that it is not implementing a "direct control" strategy in the Final Transport Rule, that is in effect what EPA has done. This exceeds EPA's authority under the Clean Air Act. As the D.C. Circuit has held, §110 of the Act does "not permit the agency to require the state to pass legislation or issue regulations containing control measures of EPA's choosing." Virginia v. EPA, 108 F.3d 1397, 1408 (D.C. Cir. 1997). Even where EPA adopts a statewide budget or trading strategy purporting to give sources flexibility to meet the overall limits, the state must be given "real choice" in how to comply. *Michigan*, 213 F.3d at 687 ("Given the *Train* and *Virginia* precedent . . . the [NOx SIP Call] program's validity also depends on whether EPA's budgets allow the covered states real choice with regard to the control measure options available to them to meet the budget requirements."). This principle flows inexorably from the Clean Air Act's federalstate partnership, which gives states the "liberty to adopt whatever mix of emission limitations it deems best suited to its particular situation" "so long as the ultimate effect of a State's choice of emission limitations is compliance with the national standards for ambient air." Train v. Natural Res. Def. Council, Inc., 421 U.S. 60, 79 (1975).

In *Michigan*, the D.C. Circuit found that the NOx SIP Call was consistent with *Virginia* because "EPA does not tell the states how to achieve SIP compliance. Rather ... EPA merely provides the levels to be achieved." 213 F.3d at 687. The court observed: "States can choose from a myriad of ... options," including various "mobile source" and "stationary source" compliance strategies. The NOx SIP Call, the court found, "allow[ed] states to focus reduction efforts based on local needs and preferences." *Id.* at 688.

Here, by contrast, EPA has told Texas (and other states) which sources to regulate—namely, large EGUs. This is uniquely constraining if compared to prior transport rules. For example, according to EPA, under CAIR, "through SIPs, the states could elect to allow boilers, combustion turbines, and other combustion devices to opt into CAIR trading programs." This is not allowed under the Final Transport Rule, which targets only large EGUs. FTR at 480. And, unlike the NOx SIP Call, "the Transport Rule does not allow states to expand the applicability to cover NOx SIP Call non-EGUs." *Id.* at 480-81. Clearly, the Final Transport Rule replaces state discretion regarding compliance options with EPA's policy preference for eliminating coalfueled generation.

Furthermore, as a result of EPA's overly aggressive annual emissions budgets for Texas, the January 1, 2012 deadline for compliance, and changes that EPA has made to the trading program since the proposed rule, the Final Transport Rule does not even give Texas real choices for regulating Texas EGUs. In order to comply, Texas EGUs must reduce their SO₂ emissions by 47% and their NOx emissions by 8% beginning in just a matter of months. The reductions that EPA is requiring of Luminant—64% for SO₂ and 22% for NOx—are even more severe. The only way to meet these requirements is for individual units targeted by EPA to de-rate or shutdown. It is apparent that EPA's goal is to target and eliminate these individual Luminant units.³¹ Since no Texas budget was provided from which to determine possible compliance scenarios, Luminant could not have raised the issues in this section during the public comment period.

EPA claims that "the Transport Rule does not impose unit level compliance strategies. While IPM may project a particular least cost compliance strategy, sources have the flexibility to comply with the state budgets through a variety of mechanisms (e.g., control installation, fuel switching, efficiency improvements, dispatch changes, allowance purchase, etc.)." Response to Comments at 2108. This claim by EPA is based on flawed data and assumptions; in truth, these "choices" do not exist in the real world. "See the complex of t

³¹ See Chris Roberts, Texas blasts EPA's new ruling on pollution, El Paso Times (July 18, 2011), available at http://www.elpasotimes.com/ci_18498051 (quoting Assistant Administrator Gina McCarthy: "Nearly half ... of the emissions of soot-forming sulfur dioxide covered by the rule are produced by just three plants, which, in turn account for only about one-tenth ... of the state's electricity generation. The balance of Texas power generation is already relatively clean and will not face a heavy compliance burden under this rule.") (emphasis added).

³² In addition to being wrong, this is a new position that conflicts with EPA's prior assessment of feasibility in the proposed rule. EPA asserted in the proposed rule that its budgets for Group 2 states only require SO₂ reductions that could be made through "(1) the operation of existing scrubbers, (2) scrubbers that are expected to be built by 2010 and (3) the use of low sulfur coal." 75 Fed. Reg. at 45,290. With respect to NOx, EPA stated that its proposed NOx budgets for states "almost exclusively represents reductions from turning on SCR units" and "projected emissions rates for … new SCR units" expected by 2012. 75 Fed. Reg. at 45,290-01.

First, EPA's IPM modeling wrongly assumes that Luminant's Big Brown Units 1 & 2, Monticello Units 1 & 2, and Martin Lake Units 1, 2, & 3³³—mouth-of-mine units that burn primarily Texas lignite—will switch to using 100% super-compliant Powder River Basin ("PRB") coal (coal with a sulfur content of 0.58 lbs./mmBtu or less). These units are designed to burn lignite, a coal that has a lower heat-input value than most other coals. In order to switch to burning 100% of any grade of PBR, a coal with a significantly higher heat-input value than lignite, many of these units would require boiler component replacements (which cannot be physically accomplished by January 1, 2012), or else must be de-rated. EPA does not take this into account. Even if the boilers could immediately accommodate 100% PRB, all currently available super-compliant PRB coal is already under contract. In 2010, 142 million tons of super-compliant PRB were produced, and one producer owns approximately 75% of the market (Peabody). Exhibit 8. Luminant estimates that EPA's models predict national production of 197 million to 206 million tons of super-compliant PRB coal (at least 139% of the 2010 supply)—an unrealistic, if not implausible, modeling assumption. Clearly, the simple fuel switching projected by EPA does not reflect a real option.

Second, EPA's modeling uses incorrect removal efficiencies for the existing flue gas desulfurization units ("scrubbers") at five of Luminant's units. EPA assumes that the existing scrubbers at Martin Lake Units 1, 2, and 3, and Monticello Unit 3 can operate at a 95% removal efficiency, and Sandow Unit 4 at a 92% removal efficiency. These *design* values used by EPA in its "remedy case" do not reflect the reported *actual* removal efficiency that can be presently achieved at these units. *See* Data from EIA Form 923 (2008) (Exhibit 9). The actual removal

However, EPA is now relying on "dispatch changes" and perhaps other undisclosed "mechanisms" at individual units to make its rule work. Response to Comments at 2108.

³³ These are seven of the eight Luminant units that currently use a blend of lignite and PRB.

This assumption conflicts with EPA's claims elsewhere in the record that Texas sources can comply "without threatening . . . the continued operation of coal-burning units . . . that burn lignite from local mining operations" and "without altering Texas's current use of lignite." *Texas and the Final Cross-State Air Pollution Rule* at 1. EPA further states in the preamble to the Final Transport Rule that it "conducted sensitivity analysis that shows Texas can also achieve the required cost-effective emission reductions even while maintaining current levels of lignite consumption at affected EGUs." FTR at 337. Luminant has been unable to locate any unit-level data or analysis supporting these assertions, despite specifically requesting this information from EPA.

³⁵ NEEDS Database v. 4.10, Document EPA-HQ-OAR-2009-0491-4509.

³⁶ EPA inexplicably changed the inputs on scrubber efficiencies in the IPM modeling runs for the Final Transport Rule to use the reported data from the EIA Form 860 instead of the EIA Form 923, which it used in its proposed rule modeling runs. The Form 860 data reflects solely "design" values as opposed to actual performance. Thus, EPA has wrongly assumed much higher scrubber efficiencies than can actually be achieved. The design values were

efficiencies of these units are in the range of 65-75% as reported on EIA Form 923, not 95%. These existing scrubbers cannot appreciably improve their removal efficiency without retrofits (specifically, the installation of new wet stacks³⁷) that require significant lead time to implement—at least two years for construction and up to five years total for planning, permitting, construction, and startup. This clearly is not possible by the January 1, 2012 compliance deadline.

Third, EPA's modeling assumes the operation in 2012 of three phantom scrubbers that do not even exist. ³⁸

Fourth, the dispatch changes that EPA is forecasting cannot occur by the January 1, 2012 compliance deadline, if at all. Unlike those serving other states, the ERCOT electric grid, which serves the majority of Texas, is a closed grid, meaning that it is not possible to import electricity generated in other states into the ERCOT region of Texas except on a very limited basis. EPA is assuming that gas-fueled capacity in Texas can fill the gaps in reduced generation from coal-fired EGUs, but its analysis includes well over 9,000 megawatts of gas-fueled capacity that is either retired or mothballed and thus cannot be brought online by January 1, 2012. For example, EPA assumes generation in 2012 from Luminant's North Lake gas-fueled plant. However, Luminant surrendered the air permit for that plant on December 15, 2009, and gutted the common control room, as shown in the picture attached as Exhibit 10. Clearly, this unit cannot be operated and dispatched. An even more egregious mistake is EPA's assumption that

determined at the time of construction of the equipment, approximately thirty years ago in the case of Luminant's scrubbers. Thus, EPA effectively fails to take into account any decrease in removal efficiency occurring over the extended time in service. Furthermore, in its Form 860 filings, Luminant reported removal efficiencies for the percentage of flue gas that is run through the scrubber. Thus, to accurately reflect the actual removal efficiency, the removal percentage must be applied only to that percentage of the flue gas that flows through the scrubber (in most cases approximately 75% of the total flue gas, because the "dry" stacks at these facilities would be seriously degraded to the point of likely failure over time if all the flue gas were run through the scrubber).

³⁷ As a matter of engineering, Luminant's scrubbers cannot operate at the efficiencies assumed by EPA in the IPM modeling run. As explained above, the Form 860 data assumed application solely to that portion of the flue gas that runs through the scrubbers. At Luminant's units, the scrubbers and stacks were designed so that only a certain amount of the flue gas runs through the scrubbers. Running more of the flue gas through the scrubbers will necessitate installing a wet stack and additional fan capacity because the temperature and makeup of the flue gas that runs through the scrubber cannot be supported by the current dry stacks at Luminant's scrubbed facilities. If more flue gas is run through the scrubbers and fed into the dry stacks that currently exist, the resulting velocity and in-stack condensation would literally cause the stack to lean and, eventually, collapse.

³⁸ NEEDS Database v. 4.10, Document EPA-HQ-OAR-2009-0491-4509 (W. A. Parish Unit 5 and J.T. Deely Units 1 & 2).

Luminant's Collin Plant can be brought back to life. The Collin Plant ceased operations in 2003, was mothballed in 2004, and was demolished on July 1, 2011 (as the pictures attached as Exhibit 11 show). A complete listing of retired or mothballed gas-fueled units, which includes those units that EPA erroneously assumes will operate in 2012, is attached as Exhibit 12. Even if these units were physically capable of operating by January 1, 2012 (complete with plant staff and the necessary gas contracts), in a competitive wholesale market like ERCOT, mothballed capacity will only be brought back if market prices support operation of these higher marginal cost units. The mothballed units that EPA assumes will come online in 2012 are the highest marginal cost units to operate, and it is unlikely that market prices will result in the economic signal to reactivate these mothballed units. Further, EPA completely ignores NOx constraints on dispatching more gas plants in the state, particularly those that operate in the Houston and Dallas-Ft. Worth ozone nonattainment areas. Finally, EPA overestimates both the capacity and When calculating reserve margins, ERCOT counts wind availability of wind generation. generation—which, of course, is available only when the wind blows—at only 8.7 percent capacity to account for its intermittent nature.³⁹

Fifth, allowance trading is not a viable option for Texas sources and Luminant in particular, especially given EPA's acceleration of the assurance provisions in the final rule from 2014 to 2012. Even with the variability "cushion" of 43,912 tons of SO_2 for Texas, there are insufficient allowances to cover the needed Texas generation without penalty. Assuming status quo operation, Luminant projects that it will be short approximately $160,000 SO_2$ allowances in 2012. The sum of the positions for sources in Group 2 states that will have a "long" allowance position is only 59,000 allowances in 2012, meaning Luminant cannot just buy allowances to comply (unless it pays other sources to curtail or shut down). Also, the entirety of the Group 2 states, on a net position, are short, so it is unreasonable to expect that significant allowance trading would occur. Furthermore, sources in Texas would have to retire allowances above the 43,912 assurance level at a 3-1 basis under the penalty provisions in the final rule, which have been accelerated by EPA to 2012.

The situation with regard to annual NOx trading is also strained. In 2012, the sum of the short positions of states in the annual NOx program is approximately 113,000 tons. Texas EGUs are short almost 17,000 tons (after accounting for owners that can leverage the allowances

³⁹ EPA's remedy modeling for Texas includes other errors of this nature that Luminant intends to raise in a reconsideration proceeding, such as overstating ERCOT's installed capacity and overstating co-generation capacity.

 $^{^{40}}$ EPA's acceleration of the assurance provisions to 2012 (and the 2012 deadline itself) is unnecessary to address attainment issues. As set out previously, Madison, Illinois, has been determined by EPA to be in attainment with the 1997 PM_{2.5} NAAQS. Further, EPA can extend the attainment deadline for the 1997 PM_{2.5} NAAQS until January 2015 based on "the availability and feasibility of pollution control measures." 42 U.S.C. § 7502(a)(2). Given the infeasibility of meeting the budgets set by EPA by the 2012 deadline, it would be arbitrary and capricious for EPA not to extend the deadline on this basis.

allocated to their operations outside of Texas). Although the sum of the positions of those states in the program that are long NOx (approximately 29,000 tons) is enough to cover the Texas short position, it cannot cover the entire short position of all states in the program. Thus, although a trading market may develop, it is not likely that the trading market will supply enough allowances to cover all states' short positions for 2012. Moreover, given the uncertainties with this new program and the fact that allowances may be banked indefinitely for compliance in future years, Luminant does not believe that even those owners with long positions will be willing to engage in any significant trading in 2012. Lastly, because the program essentially necessitates that generators make sure they have enough allowances in their accounts before they emit, units cannot take the chance that a trading market *might* develop to cover any excess emissions. This phenomenon will stifle trading until late in the year when generators are confident that they have enough allowances to cover their own 2012 emissions and therefore can sell any excess allowances. On the flip side, generators that are short will be forced to operate for most of the year without knowing how the trading market will develop. This will force generators that are short, including Luminant, to curtail operations to ensure compliance.

Sixth, EPA has effectively mandated that Texas achieve an additional 8% reduction of NOx emissions beginning on January 1, 2012—on top of the 21% reduction in Texas EGU NOx emissions made between 2005 and 2010. Exhibit 1. EPA claims that this can be achieved with "no new SCR [selective catalytic reduction] units" being installed. FTR at 424. EPA is wrong. Luminant's Big Brown, Monticello, and Martin Lake units have already installed the other available NOx control technologies that can be implemented on a relatively short time schedule. For Luminant's fleet, the only option to achieve the necessary NOx reductions is to finalize the installation of at least two new SCRs at Martin Lake. The engineering, design, permitting, and construction timeline for such installation is expected to take at least four more years.

⁴¹ Big Brown 1 & 2 and Monticello 1-3 are all equipped with over-fire air, low NOx burners, and selective non-catalytic reduction ("SNCR") technologies. Martin Lake 1-3 are equipped with over-fire air and low NOx burners. Luminant submitted a permit application for SCRs at Martin Lake in November, 2006. The Texas Commission on Environmental Quality ("TCEQ") issued a draft permit for comment in July, 2008. The Caddo Lake Coalition requested a hearing on the permit, and it is still pending. EPA does not account for such permit delays in its compliance assumptions.

Further, EPA has overstated the removal efficiencies of existing SCRs. EPA's estimated NOx removal efficiencies for SCRs are not demonstrated efficiencies that the units can achieve on an ongoing basis. While EPA states it has applied a floor of 0.06 lbs./mmBtu, it did not do so in the remedy case for the following Texas coal units equipped with SCRs: JK Spruce Unit 2 (0.050 lbs./mmBtu); Oak Grove Unit 1 (0.050 lbs./mmBtu); Oak Grove Unit 2 (0.050 lbs./mmBtu); Sandow Unit 4 (0.049 lbs./mmBtu); W. A. Parish Unit 5 (0.056 lbs./mmBtu); W. A. Parish Unit 7 (0.043 lbs./mmBtu); and W. A. Parish Unit 8 (0.050 lbs./mmBtu). Sandow Unit 4 operates under a consent decree with a NOx limit of 0.08 lbs./mmBtu, and that limit, not some lower hypothetical one, should be used in EPA's modeling.

Thus, EPA has given Texas no real choice. To comply with the January 1, 2012 compliance date, certain Texas sources, targeted by EPA, will be required to shutdown or significantly curtail output. There is no "real choice with regard to the control measure options available to them to meet the budget requirements." *Michigan*, 213 F.3d at 687. The flexibility that EPA suggests is fictional, and the Texas annual program budgets are therefore unlawful.

Further, these and other errors with the modeling assumptions are of central relevance to the outcome of the rule in that they produce an overly stringent budget for Texas.⁴³ If adjustments were made to IPM to accurately reflect the unavailability of super-compliant coal for 2012; the demonstrated scrubber efficiencies at Luminant's units; the removal of three non-existent scrubbers; and a maximum PRB blend rate of 80% (the maximum blend possible without retrofits), the modeled output for Texas would be a significantly higher annual budget for SO₂ than 243,954 tons. With regard to NOx, if SCRs were assumed to be required for compliance, the cost per ton of NOx reductions would be well in excess of EPA's claimed cost of \$500 per ton. Plainly, EPA's errors are consequential and, if corrected, would result in appropriate and substantial increases in Texas's annual budgets.

 $^{^{43}}$ Additional flaws and discrepancies in the "remedy case" assumptions for IPM are detailed in Exhibit 13.

Reasons EPA Should Stay the PM_{2.5} FIP Compliance Deadline for Texas

In addition to convening a reconsideration proceeding as to Texas, Luminant requests that EPA stay and toll the effective date and compliance obligations of the $PM_{2.5}$ FIP as applied to Texas, pending its reconsideration and any judicial review. Both the APA and the Clean Air Act authorize an administrative stay. Under § 705 of the Administrative Procedure Act ("APA"), "[w]hen an agency finds that justice so requires, it may postpone the effective date of action taken by it, pending judicial review." 5 U.S.C. § 705.⁴⁴ In addition, under the Clean Air Act, "the effectiveness of the rule may be stayed during reconsideration [] by the Administrator . . . for a period not to exceed three months." 42 U.S.C. § 7607(d)(7)(B).

Under the facts here, justice requires staying the effective date and compliance obligations of the PM_{2.5} FIP as to Texas pending reconsideration and judicial review of the Texas-specific issues. One of the primary issues to be addressed on reconsideration and judicial review is EPA's failure to provide the public with sufficient opportunity to comment on aspects of the Final Transport Rule relating to Texas that differed significantly from the proposed rule, as discussed in detail above. These are material aspects of the rule. The Texas budgets, which were not developed with the benefit of public comment, set unrealistic and unsupported annual emissions limits for EGUs in the State of Texas, such that several of Luminant's units will be required to curtail operations and possibly shut down in a matter of months in order to meet them. In light of EPA's failure to give advanced notice of Texas's inclusion and disclose annual budgets for the state, sources in Texas have not been given the time to plan for the January 1, 2012 compliance deadline, in contrast to sources in other states for which EPA included proposed budgets in its August 2010 proposed rule.⁴⁵ EPA has also not solicited and received information, data, and comments regarding the final budgets for Texas. A stay is appropriate while EPA undertakes that statutorily-required effort through reconsideration.

Moreover, in light of the pressing compliance deadlines in the PM_{2.5} FIP, sources in Texas, like Luminant, will need to begin to make major compliance investments and operational decisions immediately. These investments may not be reversible if the Texas emissions limits are in fact revised or if Texas is excluded from the rule following reconsideration and full evaluation of all relevant data. EPA has recently granted a stay of the effectiveness of its Industrial Boiler MACT rule under similar facts. *See* 76 Fed. Reg. 28,662 (May 18, 2011). As discussed above, to meet the newly-issued budget for Texas, sources must do more than simply implement "existing and planned SO₂ and NOx controls," as EPA assumed in setting the January 1, 2012 deadline for "Group 2" states and annual NOx program states. 75 Fed. Reg. at 45,301. The fact of the matter is that existing and planned controls are not sufficient to meet EPA's unrealistic new budgets for Texas. It is not a simple matter of switching fuels or "turning up"

 $^{^{44}}$ Even if EPA denies Luminant's request for reconsideration, Luminant requests that EPA stay and toll the effective date and compliance obligations of the PM_{2.5} FIP as applied to Texas pending judicial review in the U.S. Court of Appeals for the D.C. Circuit.

⁴⁵ Obviously, with no annual budgets proposed for Texas in the proposed rule, it was impracticable to raise this issue prior to issuance of the final rule.

installed scrubbers or SCRs or implementing NOx control strategies short of SCRs. Luminant's units will not be able to install the necessary additional pollution control equipment, nor will all of its units be able to conduct the work necessary to change coal types, by the January 1, 2012 compliance deadline or even the January 1, 2014 deadline, meaning the units would have to operate at significantly reduced output or possibly shut down. Accomplishing a fleet-wide fuel switch to only PRB coal by the January 1, 2012 deadline without significantly reducing the plants' electricity output is not possible. Nor is permitting, engineering, designing and construction of two new SCRs possible by either 2012 or 2014.

Staying the rule as to Texas is in the public interest. As a result of the Final Transport Rule, EGUs in Texas will be forced to cut production or shutdown in a matter of months, potentially resulting in the loss of jobs, loss of tax revenue, and collateral economic consequences, all of which will damage the small, rural communities that rely almost exclusively on these mines and plants for their economic livelihood. Given that EPA admits emissions from Texas sources may, at most, have only a marginal impact on downwind states (and in fact EPA has recently determined Madison County, Illinois, to be in attainment), imposing these adverse impacts and risks on Texas is neither advisable nor good public policy. After EPA considers public comment on the inclusion of Texas for its newly-alleged significant contribution to downwind PM_{2.5} nonattainment and its new Texas budgets during reconsideration, Luminant is confident that EPA will exclude Texas or adjust the budget, making these economic and reliability disruptions unnecessary. A stay maintaining the status quo is thus appropriate.⁴⁶

Electric reliability will also be put at risk, and reserve margins will be dangerously decreased without a stay. Because they will significantly and immediately reduce available generation capacity, EPA's new annual emissions budgets for Texas will without question threaten electric reliability in the state. EPA claimed in the proposed rule that its "emissions budgets [were] based on the reductions achievable at a particular cost per ton in that particular state, taking into account the need to ensure reliability of the electric generating system." 75 Fed. Reg. at 45,301. At the time EPA made this statement, it had not established annual emissions budgets for Texas, so it could not have taken into account the reliability of the electric generating system in Texas.

The record demonstrates that EPA has not adequately considered threats to electric reliability in Texas. EPA has vastly over-stated the amount of available capacity in ERCOT and understated Texas's reliance on coal-fueled generation. EPA's reliability analysis assumes 90,405 MW of capacity in ERCOT in 2014, with coal comprising 18,456 MW.⁴⁷ In contrast ERCOT stated in May 2011 that the available resources from 2014 were projected to be 75,967

⁴⁶ As part of this stay, Luminant further requests that EPA stay its decision to remove CAIR allowances from individual accounts in EPA's Allowance Management System, which EPA has advised account holders it will do on October 14, 2011. EPA should leave CAIR allowances in individual accounts pending reconsideration and any judicial review.

⁴⁷ EPA-HQ-OAR-2009-0491-4399 at 5; EPA-HQ-OAR-2009-0491-4455 at 6.

MW with coal comprising 19,959 MW.⁴⁸ EPA's error is the cumulative result of overestimating a number of factors, including installed capacity, wind generation name plate capacity, cogeneration capacity, and additional capacity that may come on-line by 2014.

With the recent disclosure of EPA's new budgets for Texas and its erroneous assumptions, it has become apparent that reliability problems will result despite the best efforts of generators like Luminant. The problems are compounded by other changes EPA made in the final rule. As OMB's report aptly stated:

Further, accelerating the date the assurance provision becomes effective from 2014 (in the proposed rule) to 2012 (latest interagency draft), greatly changes compliance planning for 2012 and 2013. Such a substantial change occurring six month[s] prior to the effectiveness of the assurance provision leaves sources with few options to respond in a cost-effective manner, *increasing the likelihood of disrupting system reliability* if it becomes necessary to achieve compliance through derates and/or idling.⁴⁹

These concerns have been confirmed by ERCOT. ERCOT has warned "that Texas could face a shortage of generation necessary to keep the lights on in Texas within a few years, if the EPA's Cross-State Rule is implemented as written." Although ERCOT is continuing to evaluate the new rule, it has stated that the "initial implications are that the SO₂ requirements for Texas added at the last stage of the rule development will have a significant impact on coal generation, which provided 40 percent of the electricity consumed in ERCOT in 2010." ⁵¹

ERCOT's concerns should not be taken lightly. ERCOT is an independent system operator charged by law to ensure the reliability of electricity in Texas. ERCOT manages the flow of electric power to 23 million Texas customers and has a targeted reserve margin of 13.75% to ensure electric reliability (EPA mistakenly based its assessment on a 12.5% reserve margin). Even without any temporary or permanent shutdown of units necessary to meet the January 1, 2012 deadline in the Final Transport Rule, ERCOT projects that this reserve margin will be threatened in coming years due to historic levels of demand in Texas. Even without the lost generation as a result of the Final Transport Rule, summer reserve margins, which currently

⁴⁸ ERCOT, Report on the Capacity, Demand, and Reserves in the ERCOT, Region May 2011 (June 9, 2011 Revision 2), available at http://www.ercot.com/news/presentations/, at 7, 45.

⁴⁹ OMB Summary of Interagency Working Comments at 12 (emphasis added).

⁵⁰ See ERCOT, ERCOT CEO Statement Regarding EPA Cross-State Air Pollution Rule (July 19, 2011), available at: http://www.ercot.com/news/press_releases/2011/CEO_Statement_Regarding_EPA_Cross-State_Rule.

⁵¹ *Id*.

⁵² See Report on the Capacity, Demand, and Reserves in the ERCOT Region (May 2011 (June 10, 2011 Revision 2)), available at http://www.ercot.com/news/presentations/index#osp.

stand at 17.5%, are estimated to drop to 14.2% in 2013 and 11.1% in 2014.⁵³ These are conservative estimates, given that this summer has seen record system demand in ERCOT, with numerous record demand days in July and August—the peak thus far being 68,294 megawatts (MW).⁵⁴ See Exhibit 14. Luminant estimates that, with the load reductions and shutdowns that EPA's new emissions budgets for Texas will force, those margins will drop below target levels in 2013 and perhaps as early as 2012. This is practically assumed in EPA's base case modeling, which uses a maximum hourly load of 64,747 MW, approximately 3,200 MW or 5% short of the peak just seen in Texas.⁵⁵ Threatening electric reliability in this way clearly runs contrary to the public interest.⁵⁶ Based on these reliability concerns alone, EPA should convene a reconsideration proceeding and stay the rule as to Texas in order to take ERCOT's assessment of reliability into account and to correct errors in EPA's reliability assessment.⁵⁷

In sum, for the reasons discussed above, Luminant requests that EPA convene a proceeding for reconsideration and provide the same procedural rights to owners of EGUs and other affected parties in Texas as were afforded those in states that are included in the Final Transport Rule, but were provided with proposed state emissions budgets. In light of (1) the impending unreasonable compliance deadline, (2) EPA's failure to provide Texas sources with advanced notice of inclusion and the resulting budgets to be imposed, (3) the substantial expenditures required to begin compliance activities, and (4) the social and economic harm that will shortly occur from de-rating or shutting down plants or mines, Luminant further requests that EPA stay the effectiveness of the rule and the compliance deadlines as to the State of Texas, pending its reconsideration and any judicial review of the Final Transport Rule, and extend the compliance deadlines as to Texas to reflect at least the stay period.

⁵³ *Id*. at 7.

⁵⁴ Exhibit 14 shows these peak demand days, as well as historical and projected peak demand in ERCOT.

Document EPA-HQ-OAR-2009-0491-4385, available at http://www.regulations.gov/#! documentDetail;D=EPA-HQ-OAR-2009-0491-4385 (posted July, 11, 2011).

⁵⁶ See Sierra Club v. Ga. Power Co., 180 F.3d 1309, 1311 (11th Cir. 1999) ("[A] steady supply of electricity during the summer months, especially in the form of air conditioning to the elderly, hospitals and day care centers, is critical.").

⁵⁷ At an ERCOT Board meeting held July 19, 2011, ERCOT reported it had begun an analysis of the reliability problems posed by the Final Transport Rule and would report to the Public Utility Commission with an updated white paper. Luminant intends to supplement its request for reconsideration with that analysis when it is available.

Sincerely,

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List of Exhibits

<u>Exhibit</u>	<u>Description</u>
1	Texas SO ₂ and NOx Emissions Data
2	Map: Granite City, Madison Co. Illinois to Mt. Pleasant, Titus Co., Texas
3	CSAPR PM2.5 Contributions for Texas on St. Louis (Illinois Slide)
4	Assessment of Local-Scale Emissions Inventory Development by State and Local Agencies
5	Memorandum of Understanding: U.S. Steel Corp., Granite City Works, and IEPA
6	Statement of Basis for a Planned Revision of the CAAPP Permit for U.S. Steel Corp.
7	State by State Contributions and Mandated Reductions
8	MSHA Mine Yearly Production Information: Antelope Coal Mine and North Antelope Rochelle Mine
9	Data from EIA Form 923
10	Photograph of Luminant's North Lake Plant- view of control room
11	Photographs of Luminant's Collin Plant- demolition
12	Public Utility Commission of Texas: Mothballed and Retired Generating Plants in Texas; New Electric Generating Plants in Texas Since 1995
13	CSAPR Issues of Concern
14	Historical and Projected ERCOT Peak Demand