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October 7, 2011

**VIA HAND DELIVERY AND EMAIL**

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**Re: East Kentucky Power Cooperative's 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:

East Kentucky Power Cooperative ("EKPC")<sup>1</sup> respectfully requests that the U.S. Environmental Protection Agency ("EPA") grant partial reconsideration and immediately stay the effective date of EPA's Final Rule titled "Federal Implementation Plans to

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<sup>1</sup> EKPC is a not-for-profit generation and transmission electric utility cooperative headquartered in Winchester, Kentucky. EKPC's purpose is to generate energy and ship it to co-ops that distribute it to retail customers. Today, EKPC provides wholesale energy and services to 16 distribution cooperatives through power plants, peaking units, hydro power and more than 2,800 miles of transmission lines. The company is owned, operated and governed by its members who use the energy and services EKPC provides. EKPC plays a crucial role in supporting rural and agricultural communities throughout the Commonwealth of Kentucky. The member cooperatives to which EKPC provides energy supply that energy to 520,000 homes, farms and businesses across 87 counties in Kentucky.

Reduce Interstate Transport of Fine Particulate Matter and Ozone in 27 States” (“Final Rule” or “CSAPR”) as that Final Rule applies to EKPC.

EKPC’s generating system includes the best controlled units in the Commonwealth of Kentucky. Over the past decade EKPC has reduced SO<sub>2</sub> emissions by over 67% and NO<sub>x</sub> emissions by over 63%. EKPC is in the process of installing additional state-of-the-art SO<sub>2</sub>, NO<sub>x</sub> and PM controls on another of its units. The remaining EKPC system units will be retrofitted to optimize emissions performance and comply with all of the new Clean Air Act (“CAA”) regulations that EPA is in the process of promulgating. Despite EKPC’s strong commitment to using state-of-the-art controls to reduce emissions, the unit-level allowance allocation methodology EPA introduced for the first time in the Final Rule significantly penalizes EKPC by under-allocating allowances to EKPC’s Spurlock Unit 4. This shortfall for Spurlock Unit 4 is inexplicable in light of its similarities with other units receiving additional allocations and the fact that EKPC timely raised the issue of Spurlock Unit 4’s shortfall to EPA during the public comment period. EKPC requests that EPA reconsider this allocation methodology and the result, which arbitrarily penalizes one of the lowest emitting units in the country.

When operating normally, Spurlock Unit 4 averages a monthly heat input rate of 1,851,816 mmBtu with an estimated annual heat input rate over 22 million mmBtu. EPA, however, significantly underestimated heat input at Spurlock Unit 4 by nearly 25%. The reason for this underestimation is that EPA failed to account in its averaging calculations for the fact that Unit 4 did not come on-line until the second quarter of 2009.<sup>2</sup> Additionally, EPA made improper assumptions about Unit 4’s historic emissions that severely limited Unit 4’s final allocation by more than 200% below its initial heat based allocations. EPA’s consideration of emissions data from 2009 was arbitrary because Unit 4 was not fully operational in 2009. Moreover, EPA’s use of emissions data from 2010 to constrain Unit 4’s final allocation was inappropriate. One year of complete emissions data (2010) cannot appropriately capture the inherent variability in a unit’s emissions from year to year. Thus, EPA could not possibly derive a true maximum historic emissions rate for Unit 4 from such sparse and incomplete data. As a result of EPA’s reliance on incomplete and unrealistic emissions and heat input data for Unit 4, Unit 4 has received a significant shortfall of SO<sub>2</sub> and NO<sub>x</sub> allowances under the final rule. This results in a significant penalty to EKPC. A fair allocation of CSAPR allowances to Spurlock 4 would have been 4,580 annual SO<sub>2</sub> allowances for 2012, 2,092 annual SO<sub>2</sub> allowances for 2014, 1,710 annual NO<sub>x</sub> allowances for 2012, and 1,552 annual NO<sub>x</sub> allowances for 2014.

Moreover, in promulgating the Final Rule, EPA did not follow the appropriate procedures for notice and comment under the provisions of CAA and the Administrative Procedures Act (“APA”), thus prohibiting EKPC from exercising its right to comment on the Final Rule. EKPC’s inability to comment on the Final Rule in a meaningful way has resulted in unfair and unreasonable burdens on EKPC, particularly given that the Final Rule’s requirements are derived from incorrect assumptions and incomplete or significantly flawed data. This result is not in accord with the spirit and intent of the Clean Air Act (“CAA”) and warrants reconsideration of the Final Rule and a stay of the Final Rule’s compliance deadline and effective date.

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<sup>2</sup> Because Spurlock Unit 4 was not on-line prior to 2009, 2009 and 2010 were the only years in the baseline period (2006-2010) from which EPA relied on data for averaging heat input for the purpose of allocating allowances to Unit 4 under the Final Rule.

Finally, CSAPR has also imposed unfair and arbitrary burdens on the Commonwealth of Kentucky. EPA has determined that Kentucky significantly contributes to downwind nonattainment or interferes with downwind maintenance of all three NAAQS covered under the Final Rule. As a result, the Final Rule identifies Kentucky as a Group 1 state, meaning it must make additional steep emissions reductions of SO<sub>2</sub> in 2014 and beyond. Without adequate explanation or proper notice, the Final Rule allocated nearly 10,000 tons fewer SO<sub>2</sub> emissions to the total Kentucky budget in 2014 than EPA had initially proposed under CATR. Also, under the Final Rule, EPA “corrects” its prior approval of Kentucky’s CAIR-related SIP submission and rescinds its previous statements that Kentucky’s SIP submission satisfied CAA requirements, contravening EPA’s authority under the CAA and leaving Kentucky with no opportunity to correct its SIP as it has a right to do under section 110 of the CAA. The cumulative effect of these overly-stringent emissions reductions coupled with EPA’s attempts to directly control the reductions is that EKPC and other Kentucky utilities are given no meaningful choices for how to comply with CSAPR other than retiring and de-rating productive, efficient and, in many cases, controlled units.

Accordingly, EKPC requests that EPA convene a proceeding to reconsider the Final Rule as it applies to EKPC. As part of this proceeding, EKPC is requesting EPA’s reconsideration of: (1) EKPC’s unit-level allocations of annual sulfur dioxide (“SO<sub>2</sub>”) and annual and seasonal nitrogen oxides (“NO<sub>x</sub>”); (2) Kentucky’s annual emissions budget for SO<sub>2</sub> and annual and seasonal emissions budget for NO<sub>x</sub>; (3) the FIPs EPA has issued for Kentucky under the Final Rule; and (4) the compliance deadlines and obligations for EKPC under both the annual and seasonal programs. EKPC further requests that EPA stay the compliance deadlines and effective date of the Final Rule during the pendency of this reconsideration proceeding and any judicial review of the Final Rule and that EPA extend the compliance deadlines to match the stay period.

## Overview

The CAA directs EPA’s Administrator to reconsider a final rule when two showings are made: (1) it was impracticable to raise the relevant objections during the comment period or the grounds for such objection arose after the period for public comment; and (2) the objection is of central relevance to the outcome of the rule. 42 U.S.C. § 7607(d)(7)(B). Moreover, both 42 U.S.C. § 7607(d)(7)(B) of the CAA and 5 U.S.C. § 705 of the APA provide EPA with the necessary discretion to delay the effective date and compliance deadlines of a final rule when justice so requires. Indeed, EPA has invoked APA section 705 as recently as May 2011 to stay the effective dates for the final “Boiler MACT” rule. *See Industrial, Commercial, and Institutional Boilers and Process Heaters for Major Sources and Commercial and Industrial Solid Waste Incineration Units: Final rules; Delay of Effective Dates*, 76 Fed. Reg. 28,662 (May 18, 2011).

Reconsideration and a stay of CSAPR is required because:

- The final rule is based on flawed data and erroneous assumptions resulting in the imposition of overly-stringent requirements on EKPC generally and an extreme shortfall in EKPC’s Spurlock Unit 4 allocation of allowances. This under-allocation penalizes EKPC despite the company’s

commitment to emissions reductions and arbitrarily rewards other similar Kentucky units with higher emissions.

- EKPC raised the potential for Spurlock Unit 4's allowance under-allocation in the company's comments, but EPA never addressed those comments. Moreover, EKPC did not have a chance to comment on the final allowance allocation because none of the allowance allocation methodologies that EPA initially proposed allocated as few allowances as the final Spurlock Unit 4 allocation. Therefore, the revised Spurlock Unit 4 allocation in the Final Rule, and the new methodology proposed to support it, cannot be a "logical outgrowth" of the proposed rule.
- EKPC's grounds for objection arose after the close of the formal comment period because EPA failed to respond to significant comments raised by EKPC.
- The final rule differed so significantly from the proposed rules that EPA has in effect proposed a new rule without allowing meaningful opportunity for the public to comment on new data inputs, models and methodologies essential to the operation of the Final Rule.
- EPA has exceeded its authority under section 110 of the CAA in taking the extraordinary and controversial step to issue FIPs to Kentucky and other states. EPA does not have the legal authority to impose such FIPs without first providing Kentucky and other impacted states the opportunity to address their alleged "significant contributions."
- EPA has overstepped its authority in the Final Rule by giving Kentucky and Kentucky sources no real choice regarding how to comply. The Final Rule's new methodologies for determining an upwind state's contribution to non-attainment or interference with maintenance significantly reduced Kentucky's budget and Kentucky sources received significantly lower unit-level allocations than proposed. That fact coupled with the extraordinarily short and arbitrary compliance deadline of January 1, 2012 effectively forces the shutdown or de-rate of existing EGUs. This unit-level regulation by EPA violates a the core concept of the federal-state structure of the CAA.
- EKPC's objections are of central relevance to the outcome of the rule because EKPC is raising issues related to the Final Rule's allocation methodology, budget calculations, and model inputs, all of which are core elements of the Final Rule, which, upon reconsideration, may impact the Final Rule as a whole.
- EPA should remedy these deficiencies by staying the rule and the impending compliance deadlines and undertaking a reconsideration with respect to Kentucky and EKPC's allowances, particularly those to Spurlock Unit 4. Moreover, a reconsideration would allow EKPC and similarly situated parties to review, analyze and comment on EPA's *new* inputs, data assumptions, and allocation methodologies, which, thus far, the public has been prevented from undertaking in a meaningful way.

## Background

The Final Rule is supposed to be 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). CAIR required states to reduce emissions of SO<sub>2</sub> and NO<sub>x</sub> that EPA determined significantly contribute to nonattainment and interfere with maintenance of the 1997 NAAQS for PM<sub>2.5</sub> and/or ozone in a downwind state. CAIR's emissions allowance trading program was intended to provide states covered by the rule with a mechanism to satisfy their CAA section 110(a)(2)(D)(i)(I) obligations, the so-called "Good Neighbor" provision of the CAA. To achieve this, 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 CAIR was not valid 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*. *North Carolina*, 531 F.3d at 907-08 (emphasis added). The *North Carolina* Court took issue with the regional approach under CAIR holding that the CAA requires EPA to address individual state contributions to downwind nonattainment areas and that "EPA can't just pick a cost for a region, and deem 'significant' any emissions that can be eliminated more cheaply." *Id.* at 918. Under the *North Carolina* Court's reasoning, any program intended to regulate under section 110(a)(2)(D)(i)(I) must require elimination of emissions from the actual sources that contribute significantly and interfere with maintenance in downwind nonattainment areas. *Id.* at 908.

The Court vacated CAIR in its entirety, but later, upon EPA's request, issued a ruling to remand CAIR, without vacatur, leaving CAIR in place until EPA promulgated a new rule to replace CAIR's invalid provisions. *North Carolina v. EPA*, 550 F.3d 1176 (D.C. Cir. 2008). Yet, the Final Rule is much more than a CAIR replacement. In CSAPR, EPA has fashioned an entirely new rule that is significantly broader and more stringent than CAIR in several important ways:

- CAIR addressed EPA's 1997 annual and 24-hour PM<sub>2.5</sub> NAAQS. The Final Rule also addresses EPA's subsequent 2006 revision of the 24-hour PM<sub>2.5</sub> NAAQS, which lowered the standard from 65 to 35  $\mu\text{g}/\text{m}^3$
- The Final Rule adds states that were not regulated under CAIR (i.e. Kansas, Nebraska, and Oklahoma)
- The Final Rule implements modeling methodologies different than those used for CAIR that rely on data inputs not considered when promulgating CAIR
- The Final Rule imposes emissions limitations directly on states, and in particular prescribes specific limitations on a per-unit basis
- The Final Rule intends to use FIPs in lieu of SIPs to implement the unit-level reductions
- The Final Rule creates four separate and completely new allowance trading programs in lieu of the CAIR trading framework
- Banked CAIR allowances will not be allowed to carry over into the CSAPR trading programs

EPA published its proposed new rule (CATR) on August 2, 2010. 75 Fed. Reg. at 45,210. Under CATR, EPA proposed to limit SO<sub>2</sub> and NO<sub>x</sub> 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 three NAAQS considered by EPA were 1) the annual average PM<sub>2.5</sub> NAAQS issued in 1997; 2) the 24-hour average PM<sub>2.5</sub> NAAQS issued in 2006; and 3) the ozone NAAQS promulgated in 1997. *Id.*

With CATR, EPA chose to address specific contributions of upwind states by requiring reductions of SO<sub>2</sub> and NO<sub>x</sub> emissions directly from EGUs in those states. EPA employed a two-step process for determining which states would be covered and the degree to which EGU emissions in those states would need to be eliminated. In the first step, EPA used air quality modeling to quantify individual states' contributions to downwind nonattainment and maintenance sites. For all of its modeling scenarios, EPA used 2005 as the base year for projecting air quality. Interestingly, in each of its scenarios, EPA did not factor CAIR-related reductions, despite the fact that many sources have already implemented pollution control strategies to meet CAIR's strictures and would likely continue to employ many of those technologies under the replacement rule. Moreover, EPA chose to abandon the "monitored-plus-modeled" approach it used in CAIR to determine which downwind areas were in nonattainment. Instead, EPA chose to rely wholly on modeling and neglected in many areas to gather a more complete understanding of the actual air quality at downwind receptors. This has resulted in emissions reduction requirements under the Final Rule that, in many cases, are much more stringent than needed to comply with the CAA. Under EPA's approach, 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" under CATR. If a state's contribution did not exceed the threshold, its contribution was "found to be insignificant." *Id.* at 45,214.

In the second step, for each upwind state found to be linked, EPA identified the portion of that 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 used IPM to identify costs for reducing SO<sub>2</sub> and NO<sub>x</sub> emissions from EGUs by modeling emissions reductions available at multiple cost increments. Then, EPA developed a set of cost curves it believes demonstrate, at various cost increments, the available emissions reductions for EGUs in a state. *Id.* at 45,272. Once collecting all of that data and establishing potential cost thresholds, EPA claimed to use 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. This process for direct budget setting at the state level formed the cornerstone of EPA's response to the *North Carolina* Court's holding. EPA then created the state budgets from the results of that assessment.

The Final Rule, however, differs so significantly from CATR that it is difficult to view it as anything but a new proposed rule. For instance:

- The Final Rule, to a greater degree than CATR, severely penalizes units that have operated less in recent years regardless of historic capacity factors, future demand, or whether the unit is a very clean unit

- The Final Rule shortens the compliance deadlines and deadlines for assurance penalty provision triggers that were initially proposed in CATR
- The Final Rule uses a significantly modified modeling methodology with new inputs and calculations not utilized in CATR
- The Final Rule significantly reduced state budgets in many states for both SO<sub>2</sub> and NO<sub>x</sub> emissions from what was initially proposed under CATR
- The Final Rule proposes a completely new unit-level allocation methodology not included in any of the proposals and for which EPA did not follow notice and comment procedures
- The Final Rule includes Texas, a state which was not proposed to be included under CATR and removes other states from CSAPR's reach
- The Final Rule eliminates CATR's "opt-in" provisions allowing non-covered units to participate in the trading programs

## **Reasons to Convene a Reconsideration Proceeding**

### **1. EPA failed to respond to EKPC's significant comments**

On October 1, 2010, during the formal comment period, EKPC raised several significant comments about the proposed rule that EPA either failed to adequately address or failed to respond to altogether in the Final Rule. EKPC commented on the stated policies and underlying assumptions that form the core of the Final Rule and corrected inaccurate data relied on by EPA in its allocation methodologies. There is no indication that EPA corrected its reliance on flawed data exposed by EKPC during the comment period. EKPC's comments are attached to this Petition as Exhibit A.

EKPC raised the following comments during the comment period:

- EKPC specifically commented that Spurlock Unit 4 did not come online until 2009 and did not have a full year of emissions or heat input for that year (or any prior years). EKPC pointed to this inconsistency as problematic if EPA was to base allocations to that unit on historic emissions or heat-input.
- EKPC queried whether EPA would grant a waiver of permitting requirements and/or allow covered sources to request reasonable extensions to achieve compliance with the aggressive timelines imposed under the Final Rule.
- EKPC highlighted inconsistencies in underlying technical data relied on by EPA in developing the Final Rule. For example, the rated capacities for EKPC units used by EPA are incorrect and based on original unit guarantees rather than actual operating data. In another example, EPA's use of any heat input or emissions data from 2008-2009 as a basis for normalization is not accurate given: (1) installation of control equipment at certain EKPC units reducing emissions and heat input; (2) the economic recession during those years generally led to reduced generation, which in turn lowered both emissions and heat input.

- EKPC requested that EPA utilize a three year average of 2005-2007 for purposes of deriving a standard heat-input or emissions rate.
- EKPC inquired into how compliance with the transport rule will be “determined, measured or verified on either a state or federal level” when several units are using a common stack and it becomes difficult to determine which unit is not in compliance.
- EKPC requested that EPA delay the rule’s compliance deadlines and effective date until such time as the underlying data supporting the Final Rule could be reviewed, understood and reconciled with existing data to ensure the inaccuracies and inconsistencies raised in the comments no longer existed.

In its comments to EPA, EKPC specifically requested that EPA “provide valid explanations for such inconsistencies” and “clarify the methodology and calculations used to develop the 2012 and 2014 emissions and allocations for SO<sub>2</sub> and NO<sub>x</sub> such that its calculations are transparent and the regulated community can fully understand the allocations assigned.”<sup>3</sup> Unfortunately, with respect to the above comments, EPA did neither. Instead, EPA issued a Final Rule, which not only failed to address the above comments and explain its reliance on inconsistent data, it modified its allocation methodologies altogether and provided a new framework for unit-level allocations not previously identified anywhere in the proposed rule. Indeed, the Final Rule’s new unit-level allocation methodology relies almost exclusively on the use of certain temporal baselines for historic heat input and emissions without any effort to address EKPC’s comments that the use of such an approach was problematic.

EPA has neither adequately responded to EKPC’s comments nor explained the basis for many of its decisions in the Final Rule that relate to those comments. EPA’s failure to respond to EKPC’s comments violates section 307(d)(6)(B) of the CAA which requires that “[t]he promulgated rule shall also be accompanied by a response to each of the significant comments...submitted in written or oral presentations during the comment period.” 42 U.S.C. § 7607(d)(6)(B). This failure provides an independent basis to challenge the CSAPR allocations. In *Appalachian Power Co. v. EPA*, the Court stated that “While we generally uphold the EPA’s authority to make emission projections and set emission limitations accordingly, we do so *only where the EPA adequately responded to comments and explained the basis for its decisions.*” 249 F.3d 1032 at 1051 (D.C.Cir.2001) (emphasis added).

Specifically, EPA has not adequately responded to, or has altogether failed to respond to: (1) why it used 2006-2010 to determine a representative baseline for unit-level heat input despite specific and direct comments questioning the use of 2008-2009 data; (2) why, despite EKPC’s specific comments, the Final Rule continues to take an approach to averaging heat input (by including partially operational years in the averaging) and applying an historic emissions constraint that negatively and unfairly impact units such as Spurlock Unit 4 by allocating to them an artificially low number of allowances; (3) how, despite EKPC’s specific comments, compliance will be measured when several units are using a common stack; (4) whether and to what extent the Final Rule permits granting of a waiver of applicable Title V requirements or permits reasonable extensions to the deadlines to sources attempting to achieve

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<sup>3</sup> See Comments, Exhibit A, pg. 3.



compliance in good faith; and (5) comments regarding, and EPA's apparent refusal to, delay any compliance deadlines to permit sources to determine and ensure that EPA is using the correct data and has corrected the numerous flaws in its modeling, which was late release in the docket.

EPA's failure to address these comments in the Final Rule coupled with EPA's failure to provide EKPC with an opportunity to comment on the newly proposed methodologies in Final Rule itself, has unfairly prejudiced EKPC and other similarly situated sources. Reconsideration of EKPC's comments and an appropriate response to them would better enable EKPC to comply with the Final Rule and would ensure EKPC is not unfairly prejudiced by the incorrect assumptions and inaccurate data on which EPA is relying to make its allocations.

## **2. CSAPR's heat input calculation methodology has not been subject to notice and comment**

Under the Final Rule, EPA decided to base unit-level allowance allocations on a heat input-based methodology that was not proposed in either CATR or subsequent NODAs. The Final Rule's unit-level allocation methodology bases allocations on a unit's share of the state's historic heat input (using 2006-2010 as a baseline range) not to exceed that unit's maximum historic emissions since 2003. Under this approach, the Final Rule constrains the initial heat input-based allocations only from exceeding any unit's maximum historic emissions since 2003. This approach deviates from the proposals, under which EPA proposed to base unit-level allocations on *either* heat input *or* emissions, *but not both*. Indeed, EPA never proposed constraining a heat input-based allocation with only an historic emissions cap.<sup>4</sup> Moreover, the heat input averaging method and the historic emissions factor utilized by this new methodology unfairly penalize units that experienced unexpected outages or were not otherwise fully operational during the baseline years because those methods assume normal operation and don't use appropriate factors to account for such anomalies.

Multiple significant issues arise from EPA's decision to implement this new unit-level allocation methodology for the first time in the Final Rule. First, it unfairly penalizes EKPC by allocating lower than proposed allowances to EKPC's system generally and the allocations to Spurlock Unit 4 in particular. Second, EPA failed to clearly articulate a rationale for why it chose certain baseline periods and inputs over others for its new methodology. This is striking given the fact that the unit-level allocation methodology EPA has settled on is a crucial component to the major policy consideration underlying the Final Rule – how the FIPs are going to appropriately allocate allowances under the prescribed state budgets. Third, as discussed in the section below, the Final Rule's unit-level allocation methodology is a departure from all three of the initial proposals and cannot be called a logical outgrowth of those prior proposals, thereby preventing EKPC and others from commenting on it. This methodology has unfairly penalized EKPC. Yet, EPA's failure to provide a clear rationale for its choice of inputs has left EKPC with no way to determine whether and to what extent this methodology is even based on accurate assumptions or correct data. Even if EKPC could make such a determination, because EPA failed to

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<sup>4</sup> Instead, what EPA proposed was that "unit level allocations would not be allowed to exceed what EPA determines, based on historic emissions *and other factors*, to be the units' 'reasonably foreseeable maximum emissions.'" *Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone, Sec. VII. D.*, 76 Fed. Reg. at 48,287 (Aug. 8, 2011). (emphasis added).

propose the new methodology prior to the Final Rule, EKPC has had no opportunity to lodge comment on those issues.

EPA included a general rationale in the Final Rule for using heat input, and it addressed many of the policy-oriented comments raised about the use of heat input as a supposedly fuel-neutral and control-neutral basis for allocating allowances. *See e.g.*, 76 Fed. Reg. at 48,284. EPA also delineated the specific process and methodology it uses to calculate the heat input averages and allocate allowances to units in the accompanying Technical Support Document (TSD) titled "Allowance Allocation Final Rule TSD." Docket ID No. EPA-HQ-OAR-2009-0491, U.S. EPA, July 2010. However, EPA *did not* adequately summarize any of the policy considerations underlying its choices to utilize the core inputs on which its unit-level allocation methodology relies.<sup>5</sup> Since this methodology was new to the Final Rule, such information was essential for inclusion in the Final Rule and supporting documents. Yet, in both the Final Rule and the accompanying TSD, EPA failed to explain why it used certain inputs and calculations over others in the new methodology. Therefore, such methodology has not been subject to notice and comment as required under the APA and CAA.

EPA's failure in this regard is multi-faceted. First, EPA failed to illuminate the policy considerations underlying its choice of variables used in the calculation of average heat input. For instance, EPA did not clearly explain why it chose the specific period 2006-2010 (as opposed to other years) to develop a baseline. Neither has EPA explained why it used a five year baseline average in lieu of another span of time (i.e. 3-year average or 10-year average). EPA also failed to articulate a rationale for using historical heat input as the sole predictor of future heat input. These omissions are significant given that EKPC and other sources commented extensively on the problems associated with a heat-input based approach. Indeed, as discussed more fully in other portions of this petition, EKPC specifically commented on the problems associated with using 2009-2010 data in developing allowance allocations to Spurlock Unit 4 since that unit did not come on-line until the second quarter of 2009.

Moreover, EPA failed to indicate which, if any, other factors or variables it considered in averaging and/or assigning heat input to individual units. For example, EPA does not indicate whether it considered the impact of the 2009-2010 economic recession and the related decrease in power generation on heat input? If so, did EPA study which regions may have experienced a more substantial decrease in generation (and, thus, in heat input) during those years and adjust its calculations to account for such a variable? Did EPA consider what impact the installation of certain pollution control equipment would have future heat input? If so, to what extent was that impact considered on a unit-level basis? Another factor EPA has not adequately explained is why it excluded, in its averaging, years where a unit was not operating at all (and thus required zero heat input), while, on the other hand, EPA included, in its averaging, years where a unit had only been partially operated (and thus required lower than normal heat

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<sup>5</sup> Under section 307(d) of the CAA, each proposed *and promulgated* rule is required to be accompanied by a "statement of its basis and purpose" that includes a summary of "the major legal interpretations and policy considerations underlying" the rule. 42 U.S.C. § 7607(d)(3), (d)(6)(A). Courts addressing this issue have held that EPA has "a duty to examine key assumptions as part of its affirmative burden of promulgating and explaining a nonarbitrary, non-capricious rule," and therefore must justify its basic "assumption[s] even if no one objects... during the comment period." *Appalachian Power Co.*, 135 F.3d at 818 (quoting *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 534-35 (D.C.Cir.1983)) (internal quotation marks omitted).

input). Without an explanation of this policy choice, how can a party determine it is not arbitrary? Additionally, in the Final Rule, EPA proposed for the first time to constrain a unit's heat input-based allocation by imposing a cap determined only by that unit's maximum historic emissions since 2003. However, EPA has not explained why it chose to use this historic emissions constraint in situations where a unit's historic emissions during that period are not a true indicator of that unit's normal emissions.

EPA's unit-level allocation policy choices, and its failure to explain them adequately or provide an opportunity for meaningful comment on them has negatively impacted EKPC. EPA has explained in the Final Rule that for each unit, the three highest, non-zero annual heat input values within a 2006-2010 baseline were selected and averaged. EPA further explained that if a unit does not have three non-zero heat input values during the 2006-2010 baseline period, EPA averages only those years for which a unit does have non-zero heat input values. *Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone*, 76 Fed. Reg. at 48,289-48,290 (Aug. 8, 2011). EPA's stated reason for selecting the three highest, non-zero annual heat input values within the 2006-2010 baseline is to reduce the likelihood that any particular single year's operations (which might be negatively affected by outages or other unusual events) would determine a unit's allocation. However, with respect to Spurlock Unit 4, that result is exactly what has happened. Spurlock Unit 4 did not come on-line until 2009 and, therefore, had only two non-zero heat input years during the 2006-2010 baseline period selected by EPA. Accordingly, under its new methodology, EPA averaged Spurlock Unit 4's heat input for 2009 and 2010. What EPA did not consider or account for was the fact that Spurlock Unit 4 did not come on-line until the second quarter of 2009 and there was only one full year of data (2010) on which to base its assumptions. Taken together, Spurlock Unit 4 had no heat input value for nearly twenty percent of the 24-month period used by EPA to derive an "average" heat input for that unit.

Equally important, Unit 4 had no emissions for nearly twenty percent of the 24-month period EPA looked at for determining a unit's maximum historic emissions, the only factor used by EPA to cap allocations for that unit. As explained, Spurlock Unit 4 did not operate for a full year in 2009. Therefore, the historic emissions at Spurlock Unit 4 considered by EPA cannot be said to be realistic for that unit when it is operating normally. EPA did not account for this. Instead, EPA arbitrarily imposed an emissions factor on Unit 4 that was based on 2009/2010 emissions. As a result, the final allocations to Unit 4 were over 200% lower than what was initially allocated under the heat based method.

As a consequence, EPA's methodology assumed Spurlock Unit 4 had an average heat input far lower than it actually is, resulting in an artificially low initial heat-based allocation. That initial allocation, in turn, was severely limited by Spurlock Unit 4's average historic emissions which, again, were artificially low due to the partial operating years. Consequently, a methodology that was in theory intended to protect against situations where an outage might negatively impact a unit's allocation in practice resulted in the very thing it was trying to avoid. A fair allocation of CSAPR allowances to Spurlock 4 would have been 4,580 annual SO<sub>2</sub> allowances for 2012, 2,092 annual SO<sub>2</sub> allowances for 2014, 1,710 annual NO<sub>x</sub> allowances for 2012, and 1,552 annual NO<sub>x</sub> allowances for 2014.

Spurlock Unit 4 was directly and negatively impacted by these policy choices, yet it has had no opportunity to specifically comment on them because they were not included in the proposed rule. Even now in the Final Rule, EPA has not provided a reason for averaging in years where a unit was only

partially operating and required significantly less heat input than in “normal” years despite the fact that EKPC was raising red flags about such a practice in its earlier comments. “A rule without a stated reason is necessarily arbitrary and capricious.” *Small Refiner*, 705 F.2d at 551. Without a readily accessible statement of EPA’s rationale behind such a key component of its newly proposed unit-level allocation methodology, EKPC cannot comment meaningfully on the component and cannot assess or understand the policy considerations relied on by EPA in choosing the method. On this basis alone, reconsideration is appropriate.

**3. The final rule is not a “logical outgrowth” of the proposed rule and, thus, EPA has not provided EKPC with adequate notice to comment on it**

As indicated above, one of the fundamental issues with the unit-level allowance allocation methodology in the Final Rule is that it is different from any of the methodologies previously proposed. The outcomes of the methodology are also substantially different than that proposed in CATR, and effectively penalizes Spurlock Unit 4 in particular for an unforeseen outage and late commencement of operation. As a result, neither the methodology nor its outcomes are a “logical outgrowth” of the proposed rule and EKPC has had no meaningful opportunity to comment on either.

Under both the CAA and APA, if a final rule differs from the rule EPA originally proposed, EPA has failed to provide the advance notice it is required to provide. Specifically, 42 U.S.C. § 7607(d)(3) requires EPA to publish a notice of proposed rulemaking “as provided under” 5 U.S.C. § 553(b). 5 U.S.C. § 553(b)(3) in turn requires EPA to publish a notice of proposed rulemaking that includes either the terms or substance of the proposed rule or a description of the subjects and issues involved. When a final rule differs from what was proposed, the test is whether the final rule was a **logical outgrowth** of the proposed rule **and** the comments made during the rule making process. *See Chemical Waste Mgmt., Inc. v. USEPA*, 976 F.2d 2 (D.C. Cir. 1992); *NRDC v. USEPA*, 824 F.2d 1258 (1st Cir. 1987) (emphasis added). The courts will also inquire into whether the notice of the proposed rulemaking fairly apprised interested persons so they had an opportunity to comment. *American Iron & Steel Institute v. USEPA*, 568 F.2d 284 (3d Cir. 1977). As detailed throughout this petition, EKPC and similarly situated parties have had no such opportunity.

To avoid a legal challenge, EPA attempts to characterize its new unit-level allocation approach as reflecting “the Agency’s response to extensive public comment on the options presented in CATR and the NODA” and that it is a “**logical outgrowth** of those actions.” *First Am. Discount Corp.*, 222 F.3d at 1015; *Arizona Pub. Serv. Co.*, 211 F.3d at 1299. However, a rule is deemed a logical outgrowth only if interested parties “should have anticipated” that the change was possible, and thus reasonably should have filed their comments on the subject during the notice-and-comment period. *City of Waukesha v. EPA*, 320 F.3d 228, 245 (D.C.Cir.2003); *see also First Am. Discount Corp.*, 222 F.3d at 1015; *National Mining Ass’n v. Mine Safety & Health Admin.*, 116 F.3d 520, 531 (D.C.Cir.1997); *Kooritzky*, 17 F.3d at 1513. Courts have found such “anticipation” possible under facts such as those in *Northeast Maryland Waste Disposal Authority v. EPA*, 358 F.3d 936 (D.C. Cir. 2004). In *Northeast Maryland*, the final rule promulgated by EPA merely collapsed the proposed rule’s three categories of units that were to be regulated under the rule into two categories. Moreover, the EPA invited comments on the very type of two-tier distinction it ended up with in the final rule. Under these facts, the *Northeast Maryland* Court

found that interested parties should have anticipated the aggregation of categories was possible, particularly since EPA sought comment on the basis for distinguishing such categories in the first place.

Here, there are two relevant facts that distinguish this proceeding from that in *Northeast Maryland*. First, in contrast to the facts in *Northeast Maryland*, EPA has gone much further than simply adding or subtracting a superfluous category of applicability. EPA initially provided the public with the opportunity to comment on three "specific" allocation methodologies (CATR, NODA I, NODA II). Each was a complete and stand-alone methodology with its own basis, process, and calculations. Moreover, the proposed methodologies produced outcomes that were distinct, all of which were published in the unit-level allocation tables and other technical support documentation supporting the proposals. In the Final Rule, however, EPA promulgated a new methodology that was itself distinct from any of the three prior proposals. The Final Rule's methodology also has its own, basis, process (indeed, a 10-step process) and produces in many cases substantially different outcomes than any of the previously proposed methodologies. Therefore, while the Final Rule's unit-level allocation methodology shares some characteristics with some of the proposed methodologies (i.e. use of heat input, constraints, etc.), it cannot simply be said that it is a logical outgrowth of any of them when such substantial differences exist.

There are other important distinctions between the initial methodologies and the one proposed in the Final Rule. First, none of the initial proposed methodologies utilized a unit's historic emissions as the final constraint on how many allowances could be allocated to a unit. Indeed, under the CATR and NODA I proposals EPA proposed no constraint at all. EKPC is also perplexed that EPA seemingly moved away from using historic emissions as a key factor in unit-level allocations under NODA I and II, citing several comments in support of that position, but then reversed course in the Final Rule and is now using historic emissions as the ultimate constraint on how many allocations a unit may receive. Second, NODA I and II proposed using a 5-year average heat input as a baseline for allocating allowances to units based on 2005-2009. The heat input averaging in the Final Rule's methodology uses a 5-year average based on 2006-2010. Regardless of EPA's rationale for this change, it is a change and one that in some cases had a significant impact on many sources. EPA did not propose to change the years and did not solicit comment on whether other years might be better to use for averaging purposes. Yet, there was no meaningful opportunity to comment on this change.

As a consequence, EKPC was caught by surprise by the new unit-level allocation methodology, and, because it was proposed by EPA for the first time in the Final Rule, was unable to raise appropriate objections to the methodology. EPA should provide an opportunity for public comment on the new methodology.

#### **4. As to Kentucky, EPA has not met the statutory prerequisites for a Federal Implementation Plan**

EPA has abrogated the concept of cooperative federalism that lies at the core of the CAA. Congress specifically assigned EPA the task of promulgating uniform NAAQS. However, Congress also recognized that states, with their knowledge of local sources and economic interests should carry the "primary responsibility" for delineating the ways in which sources may achieve these standards. Although EPA has the responsibility to review and approve (or disapprove) state implementation plans (SIPs), the

role of the states in formulating their SIPs is fundamental to the operation of the CAA. EPA has, in error, circumvented the SIP process altogether by immediately imposing FIPs to implement CSAPR.

Section 110 of the CAA authorizes EPA to act only after states have first attempted to address nonattainment with NAAQS within their own borders. Under the CAA, 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, of course, rescind a state’s authority over sources within its borders by issuing a FIP, **but only** in limited circumstances (i.e. only after the Administrator finds that a state has failed to make a *required* submission or disapproves a state implementation plan submission in whole or in part) *See* 42 U.S.C. § 7410(c). Neither of these predicates arises here.

With respect to Kentucky and similar states, EPA argues that the D.C. Circuit's remand of the CAIR rule in *North Carolina v. EPA* reversed EPA's prior approval of the states' SIP revisions addressing the transport obligations for the 1997 NAAQS. EPA reasons that it approved SIPs under CAIR before the court found “that CAIR was unlawful,” which “meant that the CAIR SIPs were not adequate to satisfy [the statutory] mandate,” and thus EPA's 2005 finding that states failed to submit SIPs addressing the transport obligations for the 1997 NAAQS remains in force. *See Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone, Sec.*, 76 Fed. Reg. at 48,219 (Aug. 8, 2011). EPA however cites no authority for the proposition in the North Carolina Court’s opinion or elsewhere. On the contrary, the North Carolina Court, on EPA’s own request, did not vacate CAIR. It remanded CAIR to the EPA so that EPA could remedy certain portions of the rule that were found to be invalid. EPA had already approved the SIPs at that point and nothing in the CAA permits EPA to revive its authority to disapprove a SIP on that basis. Moreover, with this action, EPA has effectively denied states like Kentucky notice and meaningful opportunity to meet the requirements of the Final Rule. *See Hatch v. FERC*, 654 F.2d 825, 835-37 (D.C. Cir. 1981) (finding that petitioner was not given sufficient notice of change in rule to “have a meaningful opportunity to meet it.”).

## 5. No real choice

The Final Rule overrides states’ primary authority under the CAA by essentially implementing a direct control strategy that dictates how individual units, such as those operated by EKPC, shall comply. This exceeds EPA’s authority under the CAA and leaves sources with no real choice of how to comply with the strictures of CSAPR.

The D.C. Circuit Court has held that section 110 of the CAA does “not permit the [EPA] 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). Courts have found that it is not enough for EPA to adopt a statewide budget or trading program which purports to provide states and sources with flexibility, rather, the state must be given “real choice” in how to comply. *See Michigan v. EPA*, 213 F.3d 663, 687 (D.C. Cir. 2000) (“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.”)(emphasis added). This “real choice” principle is derived from the CAA’s significant emphasis on the cooperative federalism approach, which

in the opinion of the Supreme Court, gives a state the “liberty to adopt whatever mix of emission limitations...best suited to its particular situation.” *Train v. Natural Res. Def. Council, Inc.*, 421 U.S. 60, 79 (1975).

Under the Final Rule, neither Kentucky nor EKPC has any “real choice” for compliance. Despite EKPC’s and other sources’ comments alerting EPA to this issue, EPA’s arbitrary and aggressive compliance timelines are arbitrary and not practical for timely installation of meaningful pollution reduction equipment. These factors combined with the artificially low allowances allocated to many of EKPC’s units give EKPC no real choice for compliance and EKPC is left with option of either shutting down or de-rating many of its units, both of which are unfair and prejudicial.

## Reasons for Stay

Under section 705 of the APA, when an agency finds that justice so requires, it may postpone the effective date of action taken by it, pending judicial review. This standard (justice so requires) is for an agency’s administrative stay and differs significantly from the standard for a judicial stay of the Agency’s action (irreparable harm). Thus, there is no need to show irreparable harm to support an administrative stay. As indicated above, EPA has applied the APA’s “justice so requires” standard for administrative stays in CAA cases.

### 1. Justice requires a stay

A stay is appropriate here because justice requires it. The key issue is EPA’s failure to provide EKPC with sufficient opportunity to comment on core provisions of the Final Rule and EPA’s failure to respond to, and adequately address, EKPC’s significant comments that are material to the operation and core policies underlying the Final Rule. EPA has thus neither solicited nor reviewed important information, comments and other data necessary to undertake a reconsideration to ensure it creates a final rule that will survive legal scrutiny. Moreover, given the Final Rule’s aggressive compliance deadlines, EKPC and similarly situated sources will have to begin major compliance investments and operational decisions immediately. Some of these may be irreversible if any portion of the rule is revised on reconsideration or a judicial review.

### 2. A stay is in the public interest

A stay of the rule pending reconsideration and judicial review is also in the public’s interest because EKPC and like sources may be forced to cut production or shut down in order to meet compliance deadlines and emissions limitations that may be revised upon reconsideration or pending the outcome of a legal ruling requiring revision of the rule. These compliance decisions may potentially result in the loss of jobs, loss of tax revenue, and collateral economic consequences, all of which will damage the small, rural communities that rely EKPC and like sources for their economic livelihood. Moreover, electric reliability will also be put at risk, and reserve margins will be dangerously decreased without a stay.

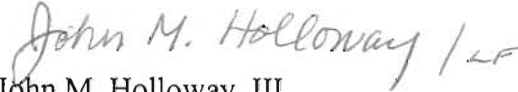
### 3. A stay is consistent with EPA's actions under similar circumstances

EPA has stayed rulemakings under similar circumstances within the last year. EPA stayed the final "Boiler MACT" rule where petitioners asserted that there is substantial uncertainty as to the applicability of the final rules, key elements of the final rules are not supported by the underlying data, and several of the emissions standards are so stringent that companies predict that no viable means of complying with them will be devised. *See Delay of Effective Dates*, 76 Fed. Reg. 28,662 (May 18, 2011). Those arguments are very similar, if not identical to the ones raised by EKPC and other petitioners with respect to CSAPR.

### Relief Requested

For the reasons explained above, EKPC respectfully requests that EPA convene a proceeding for reconsideration of the Final Rule. EKPC further requests an immediate stay of the Final Rule's effective date and compliance deadlines as to EKPC for the longer of EPA's reconsideration proceeding or any subsequent action for judicial review. Finally, EKPC request that EPA extent any compliance deadlines as to EKPC to reflect any period during which the effective date was stayed as per the above request.

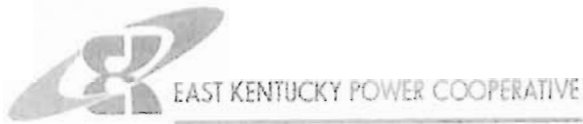
Respectfully,



John M. Holloway, III.  
Winston & Strawn, LLP  
Counsel for Petitioner



# Exhibit A



October 1, 2010

VIA FIRST CLASS MAIL AND ELECTRONIC MAIL

The Honorable Lisa Jackson, Administrator  
EPA Docket Center  
EPA West (Air Docket)  
Attention Docket ID No. EPA-HQ-OAR-2009-0491  
U.S. Environmental Protection Agency  
Mailcode: 2822T  
1200 Pennsylvania Avenue, NW  
Washington DC 20460

RE: Comments Regarding Federal Implementation Plans to Reduce  
Interstate Transport of Fine Particulate Matter and Ozone

Dear Administrator Jackson:

East Kentucky Power Cooperative, Inc. ("EKPC") has had the opportunity to review the above-referenced Proposed Regulations and appreciates the opportunity to provide the following comments:

1. EKPC Concerns Regarding Compliance Deadlines

In drafting the proposed rule, EPA assumed that utilities such as EKPC could install all necessary equipment to meet the new requirements by the 2012 and 2014 deadlines established in the rule. EKPC is concerned that the practical constraints of financing, purchasing and permitting new equipment to comply with the rule will make compliance in a timely manner challenging if not impossible. EKPC would request that EPA recognize these practical constraints and allow for either a waiver of permitting requirements or allow the regulated community to request extensions when necessary to achieve compliance.

Further, EKPC requests that EPA clarify in the rule that should the Clean Air Transport Rule ("CATR") become final, the Clean Air Interstate Rule ("CAIR") will be terminated. EKPC also requests that EPA clarify the date by which CATR will take effect in relation to NO<sub>x</sub>. Should CATR become effective for NO<sub>x</sub> in 2014 and should CAIR be terminated upon the effective date of CATR, then EPA should clarify the status of annual and ozone NO<sub>x</sub> limits in 2012 and 2013. EPA should also clarify whether new units would be required to comply with the rule, and, if so, when compliance would be required and how new units would be calculated into state budgets.

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Kentucky 40392-0707

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## 2. EKPC Concerns Regarding EPA's Underlying Technical Data

There are inconsistencies in the underlying technical data reviewed by EKPC that indicates the need to revisit the rule. For instance, EPA calculated the 2014 SO<sub>2</sub> allocation for EKPC's Spurlock Unit 1 to be 0.067 lb/MMBTU and also calculated the 2014 allocation for EKPC's Spurlock Unit 2 at 0.093 lb/MMBTU.<sup>1</sup> Both units have the same SO<sub>2</sub> emissions controls, thus a reason cannot be discerned for the differing allocations. The heat input "assumed" for 2012 and 2014 at EKPC's Spurlock Unit 1 is listed at 17,179,025 (this represents a 56% capacity factor) for 2012 and 22, 244,000 (this represents a 72.5% capacity factor) for 2014.<sup>2</sup>

Moreover, EPA should not expect the same total heat input for non-scrubbed units to be a predictor of future emissions, emission allocations, electric demand and dispatch. A non-scrubbed unit can become a scrubbed unit that reduces the SO<sub>2</sub> emissions. A unit can be modified to accept a Selective Catalytic Reactor that reduces nitrous oxide. The total heat input of a unit and dispatch order will change once the unit receives the additional pollution controls, (*i.e.* from unscrubbed to scrubbed). Because the unit has lowered its emissions, the dispatch pecking order may change, thereby enhancing the number of hours operated in a calendar year, and thus increasing its total heat input and capacity factor. (Capacity factor is a term that calculates the unit's utilization on a calendar year basis.) The methodology of using the 2009 total heat input as a predictor of the future total heat input for 2012 and 2014 is incorrect. This approach can actually hinder usage of the lowest emitting units to meet demand.

Further, at the EKPC Spurlock Station, Units 3 and 4 have the same NO<sub>x</sub> control equipment, yet they are given different NO<sub>x</sub> rates without explanation.<sup>3</sup> Also without explanation, EPA assigned no annual NO<sub>x</sub> or SO<sub>2</sub> allocations for the natural gas turbines at EKPC's Smith Station. Again, there are no SO<sub>2</sub> allocations for EKPC's Dale Stations Units 1 and 2 for 2014. Further, the rated capacities for most of EKPC's units are incorrect and appear to be based on original unit guarantees rather than on actual 2009 operating data or data from EKPC's Consent Decree entered into with EPA. The capacities as stated in the Consent Decrees EKPC entered into with EPA are contained in the following chart:

<sup>1</sup> Allocation Table-Technical Support Document for the Transport Rule-State Budgets, Unit Allocations, and Unit Emissions Rates, EPA-HQ-OAR-2009-0491-0057.1.

<sup>2</sup> Detailed Unit-Level Data for State Budgets, Unit Allocations, and Unit Emissions Rates. EPA-HQ-OAR-2009-0491-0074.1

<sup>3</sup> Allocation Table-Technical Support Document for the Transport Rule-State Budgets, Unit Allocations, and Unit Emissions Rates, EPA-HQ-OAR-2009-0491-0057.1

Dale 1	27
Dale 2	27
Dale 3	80
Dale 4	80
Cooper 1	124
Cooper 2	240
Spurlock 1	344
Spurlock 2	555
Spurlock 3	305
Spurlock 4	315

Also, EPA assigned allocations to Cooper Units 1 and 2 based on controls that do not yet exist and thus assigned allocations that are too low. While controls will be installed on these units in the future per a Consent Decree entered into with EPA, the analysis for the rule is based on 2009 data when the units have no scrubbers in operation, no SCRs in operation and have only low NO<sub>x</sub> burners in operation. Therefore, the allocations are artificially low.

Additionally, the emission allocation for EKPC Spurlock Unit 4 was based on 2009 which is the year the unit began operation, creating a lower allocation than is appropriate since no emissions were considered from January 1 through March 19, 2009 when the unit experienced initial startup. Along these same lines, EKPC's Spurlock Unit 1 commenced commercial operation of the new pollution control train consisting of a SCR, WFGD and WESP on April 1, 2009.<sup>4</sup> EPA should therefore use 12 months of the unscrubbed allocations based upon this fact, otherwise the rule unfairly penalizes EKPC.

EKPC is generally concerned that the basis for emissions allocations utilize 2009 emissions data for SO<sub>2</sub> and NO<sub>x</sub>. As with the remainder of the economy, coal-fired generation and emissions were significantly depressed during the 2008-2009 year due to the economic recession. Therefore, data from this period is inappropriate as it is not representative of normal conditions. EPA should utilize data from 2005-2007. A three year averaging methodology, as was used for CAIR, is consistent with EPA historical approaches and the 2005-2007 period provides a more accurate database for establishing allocations.

The above are just a few examples of questions that arise when examining EPA's underlying data by only one regulated entity. EPA should revisit the rule to examine the underlying data for accuracy or, at the very least, provide valid explanations for such inconsistencies. EPA should also clarify the methodology and calculations used to develop the 2012 and 2014 emissions and allocations for SO<sub>2</sub> and NO<sub>x</sub> such that its calculations are transparent and the regulated community can fully understand the allocations assigned. EKPC further requests that EPA clarify that compliance with CATR would be based on a system-wide approach rather than a plant or unit approach.

<sup>4</sup> EKPC voluntarily installed this control equipment well in advance of deadlines set in its Consent Decree entered with EPA and should not now be penalized for its emission reduction efforts.



### 3. EKPC Concerns Regarding Rule Implementation

Given EPA's proposal to immediately implement the reductions required through a Federal Implementation Plan ("FIP"), EKPC requests clarification regarding implementation of the rule and its oversight. EKPC requests clarification as to whether EPA or the state will be responsible for developing and managing allowed intrastate trading programs. EKPC further requests clarification regarding enforcement of the emissions reductions and how units with allowance deficits will be addressed. The chart below provides examples of the allowance deficits that EKPC will face if the rule is finalized:

	CATR 2012		2012 FORECAST*		2012 SHORTAGE	
	SO <sub>2</sub>	NO <sub>x</sub> **	SO <sub>2</sub>	NO <sub>x</sub> **	SO <sub>2</sub>	NO <sub>x</sub> **
Dale	6,758	N/A	9,686	N/A	(2,928)	N/A
Cooper	5,989	N/A	12,247	N/A	(6,258)	N/A
Spurlock	4,491	N/A	6,178	N/A	(1,687)	N/A

	CATR 2014		2014 FORECAST*		2014 SHORTAGE	
	SO <sub>2</sub>	NO <sub>x</sub>	SO <sub>2</sub>	NO <sub>x</sub>	SO <sub>2</sub>	NO <sub>x</sub> **
Dale	4,095	2,441	9,512	2,113	(5,417)	328
Cooper	3,777	4,284	9,588	1,797	(5,811)	2,487
Spurlock	3,711	2,164	6,356	4,142	(2,645)	(1,978)

\* Assumes all facilities are operating per forecast generation; numbers are from the Production Model in Planning.

\*\* No Allocations for NO<sub>x</sub> in 2012 under CATR.

#### 4. EKPC Practical and Technical Concerns

In drafting the rule, EPA appears to rely heavily on the ability of utilities to utilize lower sulfur coal. However, EPA should consider that, from a technical perspective, as sulfur is removed from coal, typically through scrubbing, the removal efficiency declines as a lower sulfur coal is utilized. Therefore, the efficiencies gained from using lower sulfur coal are not likely to be as great in practicality as in theory.

From a compliance perspective, EKPC requests EPA to acknowledge that often several units will share a common stack. For example, at its Dale Station, Units 1 and 2 have a common stack and Units 3 and 4 also share a common stack. Cooper Station has a common stack for Unit 1 and Unit 2 as well. Such technical realities may pose compliance issues. Technically speaking, it would be difficult for EKPC or any utility to determine which unit was not in compliance under the CATR rules since two units are tied to a common stack. CATR does not address how compliance will be determined, measured or verified on either a state or federal level.

#### 5. EKPC General Comments

EKPC strongly urges EPA to allow electric generating units to bank SO<sub>2</sub>, annual NO<sub>x</sub> and Ozone NO<sub>x</sub> allowances as well as to carry over banked allowances from the CAIR program. EKPC also strongly urges EPA to clarify that should a unit be permanently removed from service, the allowances from that unit are the property of the unit owner.

As is true of many electric utilities, over the past number of years EKPC has invested heavily in emissions reductions at its facilities. Utilities such as EKPC should not now be penalized for those emission reductions efforts by receiving lower allocations as a result reductions achieved. This rule has the potential to ultimately result in the permanent removal from service of many units, in a significantly short time frame that would severely impact the grid system which powers our homes and cities. Further, thousands of jobs could potentially be eliminated in the electric utility industry due to unit and plant closings. Such implications should be seriously considered by EPA in finalizing the rule.

Finally, EKPC adopts and incorporates herein the attached comments on the rule from the Utility Information Exchange of Kentucky. For all the above-stated reasons, EKPC urges EPA to delay the CATR until such time as all underlying data can be reviewed, reconciled and calculations can be transparent and understood. Time should be taken to analyze the emissions reductions previously achieved by the industry as well as to acknowledge the effects of the rule on the ability to generate power.

Sincerely,

*Jerry Purvis or Brad Conolly*

Jerry Purvis  
Manager, Environmental Affairs

Enclosure

cc: John Lyons, Director, Kentucky Division for Air Quality



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402-2801

September 29, 2010

Mr. John Lyons, Director  
Kentucky Division for Air Quality  
200 Fair Oaks Lane  
Frankfort, Kentucky 40601

**Subject: Comments by the UIEK on U.S. EPA's Proposed Transport Rule**

Dear Mr. Lyons:

I am writing on behalf of the Utility Information Exchange of Kentucky (UIEK), an organization comprising electric utilities operating in the Commonwealth of Kentucky, to relay comments on the U.S. Environmental Protection Agency's (EPA's) proposed rule to limit interstate transport of emissions of sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) (Transport Rule). The UIEK appreciates the opportunity to offer these comments as the rulemaking process for the Transport Rule begins.

**Comment 1: The Schedule for Meeting Phase I Emission Caps Beginning In 2012 is Unreasonable.**

Assuming the final Transport Rule is promulgated less than a year from now (EPA's current schedule is Spring of 2011), Phase I of the program would allow only about 6-9 months to implement the new emission budgets, establish emission trading programs and make the needed investments to comply with the new emission caps. Having these new emission caps, state budgets and allowance allocations in 2012 creates major logistical challenges for the electric power sector and for the states that must implement the programs.

While the EPA claims that Phase I will require little investment in the way of new controls, its assumption is predicated upon high-level modeling and not the actual physical, contractual and financial constraints at electric generating facilities during such a short time frame. In reality, implementation of further reductions by a utility will require an engineering analysis for each generating unit, and any analysis must be based on promulgated targets. Until a final rule is in hand, a utility can only establish the framework for securing funding and procurement of the project.

EPA also claims that switching to lower-sulfur coals to meet SO<sub>2</sub> emission caps is possible by 2012. However, implementation of a fuel switch will require existing contracts to be ended and new contracts obtained. Ending existing contracts often results in negotiation and litigation over several months or even years. New contracts, if obtainable, often take several months to plan and procure. In



addition, many units without add-on controls already use as much low-sulfur coal as the existing equipment can handle to meet Title IV emission targets. Switching entirely to or using a greater percentage of low-sulfur western coals, like Powder River Basin sub-bituminous coal, would require changes to coal handling and processing equipment, as well as particulate control equipment. These types of changes may require permitting, including consideration of possible impacts to emissions of newly-regulated greenhouse gases. The environmental review, permitting, design, procurement and construction required for these projects could not be completed by 2012.

**Comment 2: Retrofit Emission Control Projects Cannot Be Completed in Time for Phase II in 2014.**

States like Kentucky that are most reliant on coal for electric power generation face the major portion of the compliance burden for limiting SO<sub>2</sub> emissions under the Transport Rule. The SO<sub>2</sub> caps in 2014 for sources in Kentucky are significantly more stringent than those in 2012. These caps would require most of the coal-fired units in the state without add-on controls to install flue gas desulfurization (FGD) systems, switch to natural gas or retire early.

EPA assumes that it takes only 27 months to build an FGD system. However, a typical FGD project takes much longer to complete if you consider the entire scope from conceptual design to commercial operation. For example, it took TVA approximately five years to install the Paradise Fossil Plant Unit 3 FGD system from conceptual design to commercial operation. Also, it should be noted that utilities have already installed FGD on the units where it is most cost-effective. The remaining uncontrolled units tend to be older and smaller with corresponding space limitations. This schedule may not be achievable at sites with little available space and other retrofit challenges.

In addition, most utilities in the South and East will be effectively required to install scrubbers over the same period of time. With multiple utilities installing scrubbers at many different units over the exact same time frame, supply shortages of materials, skilled labor and engineering talent could drive up costs and lengthen the timeline for project completion. And unit outages for control installations must be staggered to avoid peak demand seasons and ensure reliability of the power supply.

Finally, the pollution control project exemption was overturned by the courts, adding pre-construction permitting requirements to many FGD project schedules. With the pollution project exemption gone, FGD projects, especially in conjunction with installation of selective catalytic reduction (SCR), will often exceed prevention of significant deterioration (PSD) significance threshold(s) for sulfuric acid mist (SAM) and require a PSD pre-construction permit. The time required to develop a permit application, obtain a permit, and add SAM mitigation equipment could add several months to the overall project schedule.

**Comment 3: Many Older Coal-fired Units will be Idled or Retired.**

Utilities have many older, smaller coal-fired units that may not be economical to control and continue to operate in light of anticipated future air, water, and waste regulatory requirements. TVA has recently announced plans to idle 1000 MW of coal-fired capacity, including Shawnee Unit 10 in Paducah, and is evaluating additional units to idle. Other utility companies operating in Kentucky have also announced that they are evaluating thousands of megawatts of coal-fired capacity for possible retirement. In many cases, gas-fired generating units will be required to replace the lost capacity. These new cleaner units will in effect be constructed in lieu of constructing controls on some of the idled or retired units. If constructed on the same site as the retired units, where emissions netting is available, the project duration from air permitting to commercial operation would be approximately three years. Gas-fired units at greenfield sites would take significantly longer to complete.

**Comment 4: The Proposed Transport Rule Does Not Allow Banked CAIR Emission Allowances to Carry Forward Into the New Trading Program.**

In the interim Clean Air Interstate Rule (CAIR) program, EPA currently allows power plants to reduce SO<sub>2</sub> and NO<sub>x</sub> emissions more than required in a given year and save, or "bank," these emission allowances for use in a later compliance year. Emissions banking allows companies to comply at a lower overall cost, because very high cost reductions and expensive pollution control equipment can be delayed until the most optimal time by using banked allowances. More importantly, banking provides a net environmental benefit, because more emission reductions and, hence, environmental improvement occurs sooner.

Under the proposed Transport Rule, EPA has eliminated the use of previously-banked SO<sub>2</sub> allowances after 2011. As a consequence, the market price of SO<sub>2</sub> allowances has dropped to nearly zero, and the SO<sub>2</sub> market has been effectively eviscerated. Elimination of the SO<sub>2</sub> and NO<sub>x</sub> allowance banks is unfair to utilities that installed controls early to bank allowances and planned, as the CAIR rule allowed, to use those banked allowances to provide time for completion of additional control installations for future lower CAIR allocation levels. Utilities that added controls and aggressively reduced emissions will be penalized and lose the value of accumulated allowances, while those who delayed controls and relied on purchased allowances will be rewarded. This elimination will also reduce confidence in and hinder any cap-and-trade features of the final Transport rule and any future cap-and-trade programs.

EPA should allow banked SO<sub>2</sub> and NO<sub>x</sub> emission allowances to carry over into the Transport Rule trading program. The allowances carried over should never expire, but even a 2016 expiration date would provide significant benefits and partially mitigate the unreasonable timeframes described above. If EPA does not allow CAIR allowances to carry over, EPA should incentivize minimal use of

CAIR allowances and base allocations in part on bank balances at the end of the CAIR program.

**Comment 5: The Transport Rule Provides No Certainty Regarding Future Reduction Requirements for SO<sub>2</sub> and NO<sub>x</sub> Under Later EPA Rules**

EPA noted in the proposed Transport Rule that it plans to further revise the rule and tighten the utility SO<sub>2</sub> and NO<sub>x</sub> emissions caps in future rulemakings to meet its new fine particle and ozone standards. Without knowing what levels of reductions will ultimately be required and by when, the investment planning process for the current proposed rule is completely untenable. The risk of stranded or unnecessary pollution control costs increases dramatically. Such uncertainty also increases the probability that coal-fired power plant units will be prematurely retired to avoid these investment and rate recovery risks.

**Comment 6: EPA's Economic and Cost Effectiveness Analysis of the Proposed Rule is Flawed.**

The preamble to the Transport Rule states that, "*EPA cannot assume in its base case analysis that the reductions required by CAIR will continue to be achieved.*" So the emission reduction benefits of CAIR are not included in the base case, resulting in higher emissions assumed in the base years. At the same time, however, the preamble says that, "*Units with advanced controls (e.g., scrubber, SCR) that were not required to run for compliance with Title IV, New Source Review (NSR), state settlements, or state-specific rules were allowed in IPM to decide on the basis of economic efficiency whether to operate those controls.*" It appears that the emission control equipment that electric utility companies have already installed to comply with CAIR, or are currently constructing for that reason, are included in the base case.

EPA cannot have it both ways. The base case must either assume a world where CAIR never existed or continue to assume that CAIR controls and reductions are in place. To assume that CAIR controls exist in the base case and that the only costs associated with the Transport Rule are operating & maintenance costs (or allowance costs) significantly underestimates the cost impacts of the rule. The costs to comply with the Transport Rule are not costs incurred in lieu of CAIR; they are costs incurred in addition to the capital expenditures made as a result of CAIR.

Because the capital costs spent for CAIR compliance are ignored in the base case, the costs to comply with the Transport Rule in the control cases are artificially low. This approach results in more controls being considered "highly cost effective" and, thus, exaggerates the air quality benefits of the rule. In addition, it penalizes states that have these controls in place, because it artificially lowers their allocations of allowances in future years as a result of too many reductions being considered highly cost effective.

**Comment 7: Emission Budgets Should Not Be Based on Years with Depressed Economic Activity.**

EPA's technical support documents indicate that 2012 SO<sub>2</sub> and NO<sub>x</sub> budgets are set at the lower of recent historical actual emissions or projected emissions at the state level. For SO<sub>2</sub> the historical 12-month emission period was the last quarter of 2008 and the first three quarters of 2009. For NO<sub>x</sub> EPA notes this period was not used because of low utilization during that period.

Coal-fired generation and emissions were significantly depressed during the 2008-2009 historical period used because of the economic recession, unusually low natural gas prices, and other factors. This historical time period should not be used by EPA, because it is not representative of normal coal-fired generation levels. EPA should use the average 3-year period of 2006-2008, which is more representative of historical generation.

**Comment 8: EPA Should Clearly State That the Final Transport Rule Satisfies the Requirements of BART and Defers Section 126 Findings.**

In developing the CAIR rule, EPA took the position that States adopting the CAIR cap-and-trade program for SO<sub>2</sub> and NO<sub>x</sub> would be allowed to consider the participation of EGUs in this program as equivalent to the application of best available retrofit technology (BART) controls (i.e., the CAIR=BART presumption) for those pollutants. This position was based on modeling done by EPA to demonstrate that CAIR emissions reductions as modeled produce significantly greater visibility improvements than source-specific BART. In the proposed Transport Rule, EPA does not create any such presumption equating the Transport Rule to BART.

Since EPA appropriately determined that compliance with CAIR exceeded the visibility improvements that would result from BART, and since the Transport rule will reduce SO<sub>2</sub> and NO<sub>x</sub> emissions below CAIR levels, EPA should include in the Transport Rule a provision that treats EGU compliance with the Transport Rule as equivalent to the application of Regional Haze BART controls.

Additionally, in developing CAIR, EPA set forth its general view of the approach it expected to take in responding to any section 126 petition that might be submitted relying on the same record as CAIR. Under that approach, as long as an upwind state remained on track to comply with CAIR, EPA would defer making the Section 126 findings. In the proposed Transport Rule, EPA does not discuss how petitions under Section 126 will be handled.

EPA should set forth a position in the Transport Rule that, as long as an upwind state remains on track with compliance with the Transport Rule, EPA will defer making Section 126 findings. This would avoid a de novo review by EPA of petitions filed by states that would lead to uncertainty for the regulated community and consume EPA and state resources for no environmental benefit.

Mr. John Lyons  
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September 29, 2010

**Comment 9: EPA's "Adjustments" to Reported NO<sub>x</sub> Emissions to Account for Controls is Unreasonable and Unjustified.**

To develop NO<sub>x</sub> budgets, EPA "adjusted" historical emissions from units equipped with SCR systems to account for year-round operation of the controls. EPA asserts that they assumed SCR systems can achieve at least 90% removal, down to a floor of 0.06 lb/MMBtu, year round. However, if a unit reported an historical ozone-season NO<sub>x</sub> emission rate lower than the assumed floor, EPA used that lower emission rate. But if a unit reported an historical emission rate higher than the assumed floor, EPA adjusted the emission rate by assuming 90% removal or 0.06 lb/MMBtu. These downward adjustments are unreasonable and unjustified. Incentives exist in most cases to emit at the lowest reasonably achievable NO<sub>x</sub> emission rate, and if a given unit reports NO<sub>x</sub> emissions at rates above 0.06 lbs/MMBtu, it is likely that that unit cannot physically and consistently operate at a lower rate year round. In addition, degradation of catalyst reactivity over time, variations in unit design, and other factors can make it impossible for a unit to repeat its best short-term performance on a year-after-year basis. If EPA does use the 0.06 lbs/MMBtu floor to develop budgets, the 3% allowance for new units should not be deducted from those allocations.

If you have any comments or questions, feel free to call me at 423-751-2005 or Jerry Purvis at 859-744-4812.

Sincerely,

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Utility Information Exchange of Kentucky