**EPA Docket Center**
**Attention Docket ID No. EPA-HQ-OAR-2009-0491**
**Environmental Protection Agency**
**1200 Pennsylvania Ave., N.W.**
**Mailcode 2822T**
**Washington, D.C. 20460**

**FMEA Petition for 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" 76 Fed. Reg. 48,208 (Aug. 8, 2011) (Docket No. EPA-HQ-OAR-2009-0491)**

The Florida Municipal Electric Association (FMEA) represents 34 community-owned electric utilities serving three million Floridians. The Major Generator Environmental Coalition includes the City of Tallahassee, Gainesville Regional Utilities, Orlando Utilities Commission, JEA of Jacksonville, Florida Municipal Power Agency and Lakeland Electric. The FMEA major generators are almost entirely fossil fuel-based. FMEA member utilities actively participated in the Clean Air Interstate Rule (CAIR) development and have installed or are in the process of installing additional air pollution controls to meet CAIR emission reductions requirements. In addition, FMEA provided comments on the Clean Air Transport Rule (CATR).
FMEA has carefully evaluated the provisions and supporting documents for the Cross State Air Pollution Rule (CSAPR) and has concluded that changes from the proposed CATR to the CSAPR are so significant as to justify a reconsideration and re-proposal of the rule. In addition, FMEA believes that the adverse economic impacts of this rule on our consumers and member utilities are sufficient to justify a decision by EPA to stay the rule until the agency is able to consider the unresolved issues we have identify below and re-propose a rule to address these concerns.

FMEA's generating utilities are members of the Florida Electric Power Coordinating Group (FCG). FMEA endorses the FCG petition to reconsider CSAPR.

**Background:** EPA developed the original transport rule, the Clean Air Interstate Rule (CAIR), through a transparent process with numerous opportunities for stakeholder input and agency feedback. The regulatory impact assessment (RIA) for the resulting rule demonstrated that CAIR would achieve all of EPA's Clean Air Act air quality objectives with minimal impact to the electric generating industry's fuel mix and consumer energy costs as illustrated by EPA's description of the results of CAIR listed below, from their website:

"*This rule will result in the deepest cuts in sulfur dioxide ($SO_2$) and nitrogen oxides (NOx) in more than a decade.*

- *On March 10, 2005, the Environmental Protection Agency (EPA) announced the Clean Air Interstate Rule (CAIR), a rule that will achieve the largest reduction in air pollution in more than a decade. This action, called the "Interstate Air Quality Rule" when it was proposed in January 2004, offers steep and sustained reductions in air pollution as well as dramatic health benefits at more than 25 times greater than the cost by 2015.*

- *Through the use of the proven cap-and-trade approach, CAIR achieves substantial reductions of sulfur dioxide ($SO_2$) and nitrogen oxides (NOx) emissions and is a powerful component of the Administration's plan to help over 450 counties in the eastern U.S. meet EPA's protective air quality standards for ozone or fine particles.*

- *$SO_2$ and NOx contribute to the formation of fine particles and NOx contributes to the formation of ground-level ozone. Fine particles and ozone are associated with thousands of premature deaths and illnesses each year. Additionally, these pollutants reduce visibility and damage sensitive ecosystems.*

- *By the year 2015, the Clean Air Interstate Rule will result in:*
  *-- $85 to $100 billion in annual health benefits, annually preventing 17,000 premature deaths, millions of lost work and school days, and tens of thousands of non-fatal heart attacks and hospital admissions.*
  *-- nearly $2 billion in annual visibility benefits in southeastern national parks, such as Great Smoky and Shenandoah.*
  *-- significant regional reductions in sulfur and nitrogen deposition, reducing the number of acidic lakes and streams in the eastern U.S."*[1]

Several parties brought suits in the United States Court of Appeals for the District of Columbia, which result in an eventual remand of CAIR for three key flaws. First, the structure of the CAIR cap and trade program could not in theory prevent a significant ambient impact if an upwind state over relied on purchased allowances for compliance. Second, the use of a fuel factor in NOx allowance allocations was disallowed. Third, Acid Rain allowances could not be used for the CAIR cap and trade program. However, the Court found no issues with the methodology EPA selected to screen for significant downwind impact nor did the Court impose a definitive deadline to correct CAIR's flaws. In fact, the Court made a deliberate decision not to honor the requests of some petitioners for a firm deadline for the Agency to correct the flaws in CAIR.[2] For this reason many utilities subject to CAIR including FMEA members reasonably assumed that EPA would amend CAIR to address those flaws identified by the Court and proceeded to develop their compliance strategies accordingly.

On August 2, 2010, EPA proposed the Clean Air Transport Rule (CATR) which not only corrected the CAIR defects identified by the Court, but increased the stringency of the $SO_2$ and $NO_X$ emission caps well beyond those in CAIR. On July 6, 2011, the Clean Air Transport Rule was renamed the Cross-State Air Pollution Rule (CSAPR) and signed by the EPA Administrator. Major changes were made in emission reduction requirements from CAIR to CATR to CSAPR regarding states covered and emission caps as illustrated in Table 1.

[1] Source: the EPA CAIR website www.epa.gov/cair/basic.html
[2] Case: 05-1244 State of North Carolina v. Environmental Protection Agency, Petitions for Rehearing Document: 01215418702

**Table 1. Allowance Allocations for EPA's Proposed and Adopted Transport Rules**

| Boiler ID | $SO_2$ Allocation 2012 (tons) | $SO_2$ Allocation 2014 (tons) | NOx Annual Allocation 2012 (tons) | NOx Annual Allocation 2014 (tons) | NOx OS Allocation 2012 (tons) | NOx OS Allocation 2014 (tons) | Total States Covered |
|---|---|---|---|---|---|---|---|
| CSAPR | 3,270,978 | 2,064,887 | 1,205,808 | 1,127,255 | 591,038 | 556,748 | 28* |
| CATR | 3,893,870 | 2,500,003 | 1,376,312 | 1,376,312 | 641,614 | 641,614 | 32** |
| CAIR | 3,673,995 | 2,571,796 | 1,521,707 | 1,268,094 | na | na | 26 |

**Oklahoma Ozone season only** includes DC*

In adopting CSAPR, EPA has gone well beyond correcting the remand flaws in CAIR and has created enormous additional compliance burdens on electric utilities and their customers without apparent justification. After spending hundreds of millions of dollars to meet the CAIR caps, many Florida electric generating utilities, including FMEA member utilities, find that they will have substantial shortfalls of allowances to meet CSAPR requirements.

**Specific Issues and Provisions of CSAPR that Warrant Reconsideration of the CSAPR Rule**

***EPA's general assumption that utilities should have anticipated that substantial additional changes to CAIR beyond the Court remand is unreasonable.*** EPA has stated in a recent Congressional hearing on CSAPR and in correspondence to an affected utility that the utility industry had ample warning to prepare for the CAIR replacement rule.[3] FMEA strongly disagrees. EPA held few if any public workshops or meetings before publishing CATR or the final CSAPR. This is in stark contrast to the open and transparent stakeholder process that resulted in CAIR. This lack of an open and transparent process in developing CSAPR resulted in FMEA members proceeding with capital air pollution control projects that ended up actually punishing those utilities under CSAPR for the early emission reduction action that EPA encourages.

***EPA needs to reconsider CSAPR in light of the cumulative impact of other rules being adopted for the electric utility industry.*** The electric utility industry is facing numerous new restrictions and significant additional capital costs to EPA's aggressive rule making agenda. These include:

- The Utility Air Toxics Rule
- New Sources Performance Standards for Green House Gases
- 316 ( b) Cooling Water Intake Standards
- New Coal Combustion Residuals Standards
- And PM 2.5 and Ozone National Ambient Air Quality Standard revisions

[3] Honorable Gina McCarthy's testimony September 15, 2011, House Science and Technology Committee; EPA response letter from Robert Perciasepe, Deputy Administrator of Luminant.

FMEA believes that cumulative impact of these rules must be evaluated for environmental quality improvements and costs to the economy. To do less fails to appreciate the serious economic crisis facing our state and the country.

***Florida Ozone season $NO_X$ allowances reductions with CSAPR represent over 89% of the total CSAPR allowance cap.*** While the total number of Ozone season $NO_X$ allowances was reduced by 5.03 % for 2012 and 10.54% for 2014 for the entire Ozone season program with CSAPR compared to CATR, Florida's reduction comprised over 86% of that reduction in 2012 and nearly 42% in 2014 (see Table 2.). This disproportionate reduction in the allocation of Ozone season allowances is especially unfair considering that Florida utilities have more installed BACT NOx controls systems and lower NOx emission rates than the majority of states in the Ozone season program.

**Table 2. Comparison of Florida Ozone Season NOx Allowance Reductions Compared to Regional Reductions**

| Transport Rule | NOx OS Allocation 2012 (tons) | NOx OS Allocation 2014 (tons) | Florida NOx Allocations 2012 (tons) | Florida NOx Allocations 2014 (tons) | Florida % of 2012 CSAPR NOx Reductions | Florida % of 2014 CSAPR NOx Reductions |
|---|---|---|---|---|---|---|
| CATR | 622,338 | 622,338 | 55,222 | 55,222 | | |
| CSAPR | 591,038 | 556,748 | 27,262 | 27,262 | | |
| % Reduction | 5.03% | 10.54% | 50.63% | 50.63% | 89.33% | 42.63% |

**Data Source CSAPR and CATR Unit Data Bases without new unit side a sides.**

***CSAPR allocation methodology change from CATR severely punishes early reductions and the deployment of high efficiency air pollution control systems (APCs).*** FMEA members have some of the lowest emitting gas and coal-fired electric generating units in the CSAPR region, which employ the best available control technology (BACT) flue gas desulfurization scrubbers (FGDs) and selective catalytic reduction systems (SCRs). In CAIR, and to a lesser extent CATR Option 2, the allocation methodologies did not directly punish early reduction of emissions. However, in CSAPR, instead of providing minimum allowance allocations based on heat input (or as in CATR Option 2, the lesser of either the heat input allocation or the calculated maximum potential emissions based on maximum heat input, an assumed "clean" NOx rate, and an assumed "reasonable" capacity factor), EPA awarded allowances at the lesser of the heat input allocation or the maximum *actual* annual emissions during years 2003 through 2010. The result is that units with good historical environmental performance will receive fewer allowances than those with much poorer emission reduction efficiency. This is illustrated in Table 3, which shows the $NO_X$ emission rates that Florida must achieve for CSAPR compliance during the ozone season when compared to the average compliance emission rate for the CSAPR states in the ozone season program.

**Table 3. CSAPR NOx Ozone Season Compliance Emission Rate Comparison (based on 2010 emissions)**

| Control Area Sources | 2012 (lb/MMBtu) | 2014 (lb/MMBtu) |
|---|---|---|
| CSAPR Regional Average | 0.1026 | 0.0967 |
| Florida State Average | 0.0571 | 0.0571 |

***Source: EPA CSAPR Unit Allocation Database***

***The Cross State Clean Air Rule unit allowance allocation methodology is illogical and poor public policy for several reasons.***

*First, the CSAPR allowance allocation methodology violates a key cap and trade success principle.* The proposed allocation method fails to allow utilities to choose to over-control their emissions at electric generating units (EGUs) where it is cost-effective and under control at sources where it is less cost-effective. For example, if under CAIR an 80% removal of $SO_2$ would achieve compliance and running at 95% removal could generate surplus allowances for sale, the Proposed Transport Rule would not allow that benefit for installing expensive pollution controls. CSAPR awards allowances based on the maximum historical emissions of the unit which allows only minimal opportunity for very well controlled units to generate surplus allowances.

*Second, the CSAPR punishes aggressive early emission reductions.* Unlike the CAIR rule, by reducing allowances to those who installed expensive air pollution control equipment, EPA is actually financially punishing utilities for both early compliance and aggressive emission reductions.

*Third, CSAPR allowance allocation methodology will hurt future proactive emission reductions by industry.* The shift away from the CAIR allocation methodology, one that rewards over-control and early emission reductions, to a transport rule methodology that punishes the very same behavior, will create a long lasting chilling effect on future proactive emission reductions by industry.

***EPA methodology for determining state allowance allocations is poor public policy and severely punishes FMEA members that in good faith installed air pollution controls (APCs) to meet CAIR and other CAA requirements.*** FMEA member utilities are owned by the communities we serve. Our citizens expect us to provide not only reliable and economical electric power and also superior environmental performance from our utility operations. For this reason our best available control technology (BACT) determinations have often resulted in APCs that could be considered technology forcing. Many of Florida's investor-owned utilities have similar consumer expectations. We believe that EPA's claim that Florida can provide cheap $NO_X$

reductions (<$500/ton) during the Ozone Season is based on the assumption that only the incremental cost of removing an additional ton of $NO_X$ needs to be considered as opposed to including the capital cost of the APCs added to meet CAIR or a BACT limit. FMEA strongly disagrees. The capital costs of these systems will typically be paid for over 20 years. Our consumers are paying for those reductions. As seen in Table 4, below, the typical cost for removing a ton of $NO_X$ with SCR greatly exceeds $500/ ton. FMEA member utility costs for removing a ton of $NO_X$ run between $2,300 and $4,600/ton.[4]

**Table 4. EPA Projected SCR NOx Reduction Cost**

| Source | Capital Cost ($/MMBtu) | O&M Cost ($/MMBtu) | Annual Cost ($/MMBtu) | Cost per Ton ($/ton) |
|---|---|---|---|---|
| Large Gas Turbine | 5,000 - 7,500 | 3,500 | 8,500 | 3,000 - 6,000 |
| Coal PC Unit | 10,000 - 15,000 | 300 | 1,600 | 2,000 - 5,000 |

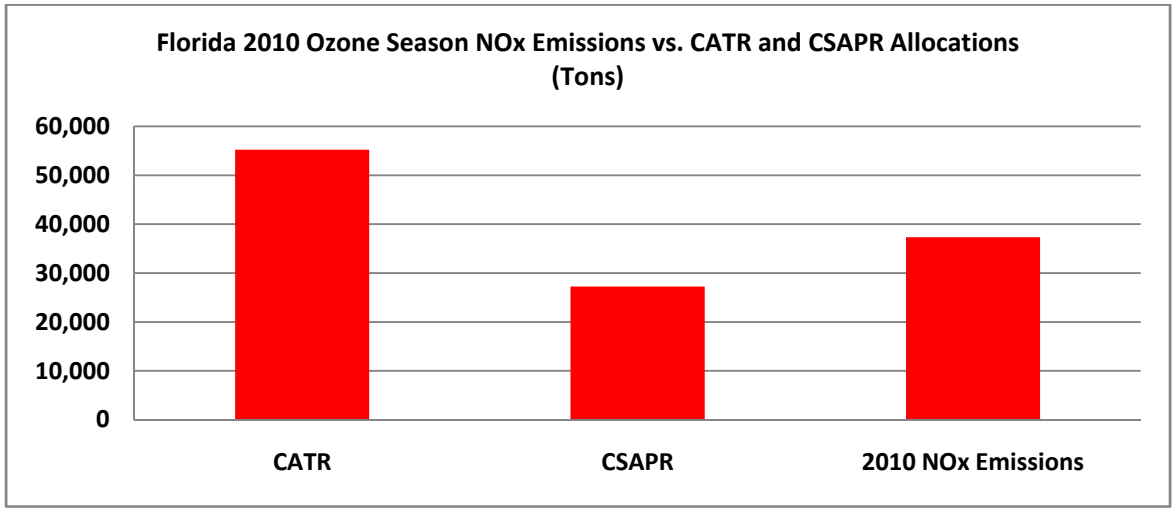
***Source Air Pollution Control Fact Sheet EPA-452/F-03-032***

By failing to recognize the true cost for FMEA member utilities to remove $NO_X$ emissions, EPA has increased the $NO_X$ reduction requirements on a state with one of the lowest $NO_X$ emission rates in the CSAPR program. Such allocation decisions by EPA will stifle future air pollution control projects that go beyond the minimum requirements to comply with environmental standards.

***Without warning, EPA cut Florida Ozone Season Allowance by 50% with CSAPR Compared to CATR.*** While Florida was removed from the CSAPR annual emission cap programs for $SO_2$ and $NO_X$, Florida remains in the Ozone Season cap and trade program. Florida received 55,222 Ozone season $NO_X$ allowances under the proposed CATR but only 27,262 allowances under the final CSAPR. In 2010 the state of Florida emitted about 37,000 tons of $NO_X$, which would place Florida in compliance under the CATR but out of compliance under CSAPR. <u>In other words, the air pollution control systems that Florida utilities installed to meet CAIR would allow compliance under the proposed CATR but not the final CSAPR.</u> The CSAPR state assurance provision will limit the allowances Florida can purchase from other states to about 5,600 tons while having a deficit based on 2010 emissions of about 10,000 tons. This means that over 4,000 tons of additional $NO_X$ reductions must be obtained within the state.

[4] Based on FMEA member BACT analyses for APC permits issued by Florida DEP. Coal-fired unit SCRs typically have a lower cost per ton of NOx removed compared to gas-fired units due to greater NOx emission per MMBtus from coal-fired units.

**Graph 1. 2010 Florida Ozone Season $NO_X$ Emissions Compared to CATR and CSAPR Allocations**




EPA has stated in numerous public forums that CSAPR caps will likely be lowered with each lowering the $PM_{2.5}$ or Ozone NAAQS. Since EPA's allowance allocation methodology punishes states with lower emission rates and highly efficient APCs the future impact of CSAPR on the Florida economy could be severe.

***EPA Air Quality Modeling Subjecting Florida to the CSAPR is Suspect.*** EPA modeling shows that Florida $NO_X$ emissions cause a significant impact on the Ozone NAAQS attainment in Texas while having no significant impact on maintenance areas or non-attainment areas in much closer states including Alabama, Georgia and Louisiana. Our initial review of EPA modeling results indicates that Florida's $NO_X$ reductions will provide over 70% of the interstate transport reduction for Houston, Texas, when seven states appear to significantly impact Houston's Ozone NAAQS attainment. In addition, FMEA was not able to determine the relative accuracy that EPA attributes to the air quality model used for CSAPR. EPA's determination of Florida's significant impact on Texas does not seem reasonable.

***The DC Court remand of CAIR did not require EPA to reduce regional and state caps.*** Florida utilities installed hundreds of millions of dollars worth of "state of the art" air pollution control systems on existing EGUs to meet CAIR. Many other EGUs were built with "state of the art" pollution controls that could comply with the CAIR caps. EPA's decision to reduce the emission caps for CSAPR below those of CAIR and even CATR was not required by the Court. EPA's decision to move the compliance "goal post" with CSAPR will result in many FMEA generating units with best available control technology (BACT) being unable to meet their unit emission caps. (See Table 5)

**Table 5. BACT EGU NOx Emissions for the 2010 Ozone Season vs. Ozone Season CSAPR Allocations**

| Power Plant | Unit | SO2 Removal System | NOx Removal System | 2010 Ozone Season Emissions* | 2012 Ozone Season Allowances |
|---|---|---|---|---|---|
| Curtis H. Stanton Energy Center | 2 | FGD Scrubber | SCR | 1,102 | 607 |
| Deerhaven | B2 | FGD Scrubber | SCR | 229 | 300 |
| Northside | 1A | FGD Scrubber | SNCR | 350 | 419 |
| Northside | 2A | FGD Scrubber | SNCR | 448 | 402 |
| St. Johns River Power | 1 | FGD Scrubber | SCR | 1,381 | 872 |
| St. Johns River Power | 2 | FGD Scrubber | SCR | 1,448 | 932 |
| C D McIntosh Jr Power Plant | 3 | FGD Scrubber | SCR | 433 | 447 |
| | | | TOTAL | 5,390 | 3,979 |

**** Some units were not running at full capacity during the 2010 ozone season. Allowance shortfalls could be much greater.***

***The CSAPR Usurps the Role of the States.*** In light of the stringent CSAPR compliance schedule, the Environmental Protection Agency (EPA) has imposed Federal Implementation Plans (FIPs) on affected states, including Florida, rather than permitting states the time required to develop State Implementation Plans (SIPs). This stringent compliance schedule was not mandated by the Court.

***Lowering the Screening Criteria for Determining a Significant Impact Was Not Required By the Court Remand of CAIR.*** By lowering the significance threshold in CSAPR for upwind state impact on downwind states, EPA has expanded the number of states regulated and reduced the emission caps beyond that of CAIR. In CSAPR the significance screening level was set at 1% of the NAAQS as opposed to retaining the levels in CAIR. **This change establishes a criterion that will continually reduce the significance screening level with every revision of a NAAQS without any future consideration of whether each screening level decrease is justified.** For example, in the case of the Ozone NAAQS, this new method of determining significance lowered the CAIR threshold of 3 ppb to 0.85 ppb, which is a 270% reduction. If EPA revises CSAPR to accommodate the 2008 Ozone NAAQS, the screening level would drop to 0.75 ppb or an additional 12% reduction. As adopted, CSAPR will create a continual series of transport rules in response to future Ozone and $PM_{2.5}$ NAAQS revisions starting as soon as late this year. If EPA maintains its rigid compliance timelines, this will likely create a permanent FIPing of the states and derailing Congressional intent on how the SIP program was designed to work under the Clean Air Act.

***EPA did not fully consider Florida transmission constraints and reliability impacts with implementing CSAPR,*** The EPA IPM's (integrated power model) macro evaluation of transmission does not allow for a realistic evaluation of CSAPR's negative impact on Florida's electric reliability. EPA allocated fewer allowances to Florida as a whole because they believed that cheaper $NO_X$ emission reductions could be achieved in Florida and that Florida could also import power from other states that have surplus Ozone Season $NO_X$ allowances. However, the Florida Reliability Coordinating Council (FRCC) establishes the maximum summer transfer capacity into Florida at 3600 MW. Since the transfer capacity is fully utilized, Florida would receive very limited compliance assistance from any additional energy that could be imported

from other states. Florida's limited summer transfer capacity adds the state's compliance issues associated with radical reduction Ozone Season $NO_X$ allowances. However, the situation with power exported from the state is also an issue. There is nearly 900 MW of summer transfer capacity flowing north that is generated with a Florida Ozone Season emission rate 40% below the CSAPR Ozone Season compliance average based on 2010 emissions. However, CSAPR allowance constraints could limit the generation of low emission energy for export.

FMEA respectfully requests EPA to grant our petition to reconsider the CSAPR and re-propose the rule to address the issues we have raised. We also urge EPA to stay CSAPR and continue to enforce CAIR until a re-proposed CSAPR is adopted.

If you have questions or wish additional information on our petition, please contact me at 850-224-3314, ext. 1, or Robert L. Kappelmann P.E. at 904-819-6938.

We appreciate your consideration our petition.

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