State of Ohio Environmental Protection Agency

STREET ADDRESS:
Lazarus Government Center
50 W. Town St., Suite 700
Columbus, Ohio 43215

TELE: (614) 644-3020 FAX: (614) 644-3184
www.epa.state.oh.us

MAILING ADDRESS:
P.O. Box 1049
Columbus, OH 43216-1049

October 1, 2010

Attention EPA Docket Center, EPA West (Air Docket)
Attention Docket ID No. EPA–HQ–OAR–2009–0491
U.S. Environmental Protection Agency
Mail Code: 2822T
1200 Pennsylvania Avenue, NW.
Washington, DC 20460

Re: Comments on U.S. EPA August 2, 2010 proposed "Federal Implementation Plans To Reduce Interstate Transport of Fine Particulate Matter and Ozone" ("Proposed Transport Rule") [75 FR 45210].

To whom it may concern:

The Ohio Environmental Protection Agency thanks U.S. EPA for the opportunity to comment on the above-referenced Proposed Transport Rule.

Ohio EPA agrees with the importance of addressing Clean Air Act Section 110(a)(2)(D) regarding the transport of pollutants that may contribute to nonattainment or interfere with maintenance of the national ambient air quality standards (NAAQS). However, none of the options proposed by U.S. EPA provides the type of trading needed to significantly reduce emissions and, at the same time, minimize costs. The preferred proposed option, State Budgets/Limited Trading, provides at least some flexibility regarding trading, but Ohio EPA has significant concerns regarding the timing of this proposal and the ability of the states and regulated community to implement the requirements within the time frames specified, or indeed, as a practical matter, to meet the requirements at all. While we understand that U.S. EPA's selection of 2012 and 2014 compliance deadlines is an attempt to address the court's concerns regarding the lack of the timeframes in the Clean Air Interstate Rule (CAIR) that coincide with the attainment deadlines, states and the regulated community are once again being subject to unreasonable deadlines as a means of rectifying the federal government's failure to produce a timely regulation. Given the serious consequences that will face sources not meeting their allocated budgets, it is imperative that U.S. EPA provide a workable

approach within the Transport Rule. However, the preferred proposal is deeply flawed and simply not practical.

Ohio EPA's major concerns are as follows:

1. Ohio EPA is concerned with the "one size fits all" approach embedded in certain aspects of this proposal.

    a. Ohio EPA is concerned with the "one size fits all" approach by which U.S. EPA is aligning compliance dates in the Proposed Transport Rule with NAAQS attainment dates. **Given that there will likely be a new ozone standard in 2010, U.S. EPA should promulgate a Transport Rule that addresses the upcoming revised standard.**

    U.S. EPA's 2012 compliance deadlines are intended to be aligned with the June 2013 deadline for serious ozone nonattainment areas under the 1997 Ozone NAAQS. Yet none of the "downwind" states affected by this proposal are designated "serious" ozone nonattainment areas. This approach would have been workable when CAIR was being developed but due to the remand of CAIR and the time necessary to develop the current proposal, this alignment is flawed. Essentially, reductions resulting from the Transport Rule will not further attainment of the 1997 ozone standard, but rather the soon-to-be-finalized revised 2008 ozone standard. In addition, if U.S. EPA did not implement the Transport Rule until 2014, or a later more appropriate date, U.S. EPA could allow states time to develop and implement a State Implementation Plan (SIP) in accordance with the Clean Air Act.

    b. Ohio EPA is concerned with the "one size fits all" approach by which U.S. EPA assumes all sources can install controls or perform fuel switching. **U.S. EPA must provide an implementation schedule that is reasonably achievable considering the ramifications for not complying.**

    U.S. EPA believes that sources have sufficient time to install the advanced emissions controls that will be necessary to meet the proposed allocations. However, Ohio EPA believes this will be quite challenging if not impossible for a number of Ohio sources. For example, U.S. EPA assumes that Beckjord Unit #6 will install a scrubber by 2014. However, this unit's location lacks available surrounding land for a scrubber installation, which thereby would necessitate a "custom fit". While three years (from final rule effective date) <u>may</u> be plausible for an ideal situation, in the Beckjord situation three years will not provide enough time for the necessary planning and installation. As another example, the unit at the Zimmer plant already has a scrubber (installed in 1991) with an original

design efficiency of approximately 91%. Improvements have increased the efficiency of this unit but not to the 98% level assumed in this proposal, and for which the basis of allocations will be made. If a requirement for 98% is still assumed for this unit in the final rule, there would likely be no choice but to dismantle the current scrubber to make room for a new scrubber in exactly the same location. This would not be a "typical" retrofit and will certainly necessitate more time than this proposal allows, and would be extremely costly in light of the pollution control investment already made at the plant.

With respect to the fuel switching which is assumed for some sources, Ohio EPA also believes there may be cases where the "one size fits all" approach is not appropriate. For example, some sources are contractually bound to certain fuels which will make fuel switching by the deadline impossible. Also, natural gas may not be available at all locations, making fuel switching an impractical control option.

Because of the compliance with emissions limitation provisions and assurance provisions, units that can't meet this "one size fits all" deadline of 2014 may face serious consequences. Therefore, Ohio EPA believes U.S. EPA should reconsider the 2014 deadline or, alternatively provide additional flexibility, without legal consequences, for sources that are simply unable to install required controls by the deadline. Certainly, due to the limited trading opportunities provided for in the proposed rule, U.S. EPA cannot assume that an owner can just "trade" to obtain the needed allowances.

2. Ohio EPA disagrees with the use of the Integrated Planning Model (IPM) for allocating unit level emissions. **U.S. EPA should provide for unit level allocations to be the responsibility of the states as part of a State Implementation Plan (SIP) process.**

3. Ohio EPA has concerns over the reliability of the electrical grid. **U.S. EPA must provide an implementation schedule that is reasonably achievable without jeopardizing reliability of the electrical grid.**

   Considering the deadlines imposed by this proposal and the need for a number of sources to rush to install controls in the specified time frame, reliability during the retrofit period will be a concern. This proposal requires significant reductions in Ohio of SO_2 between 2012 and 2014. Ohio's SO_2 emissions have been declining significantly over the past eight years. In 2002 emissions of SO_2 were over 1,132,000 tons while in 2009 they were at 600,686 tons. This proposal budgets SO_2 emissions at 464,964 tons in 2012 and 189,583 tons in 2014, while CAIR had provided for an estimated 2015 budget of 233,464 tons. While many sources are already in the planning and/or construction stages of implementing

the installation of scrubbers to address CAIR, this proposal will require significantly more sources to install scrubbers over the next several years. Small emissions budget allocations to a number of smaller units will necessitate retirement or retrofitting with controls. Considering the time required for planning, procuring materials and installing controls, states could find themselves with significant generating capacity needing to go off line all at once. In totality, such an effort raises significant concerns regarding electrical reliability during this period. We fully support the comments of the Public Utilities Commission of Ohio (PUCO) regarding reliability concerns and the inability to install controls in the time frames provided under this proposed rule.

4. Ohio EPA has concerns with respect to the new source set aside and the treatment of shutdown units. **U.S. EPA must provide a framework that allows for adequate and necessary growth in order to ensure electric reliability is maintained.**

   a. The new unit set aside, 3%, is taken off the top of what is already a very restrictive SO_2 budget.

   b. Ohio EPA questions if a 3% new unit set aside is enough, especially given the approach for handling shutdown provisions.

      Units that are permanently shut down would continue to collect allowances (theoretically for use by another unit at the facility or trading) for six years. Then, those allowances would go into the new unit set aside in the seventh year. Ohio EPA understands U.S. EPA's intention of limiting the likelihood of owners continuing to operate older units just to receive allowances. However, Ohio EPA has concerns that not distributing these allocations to the new unit set aside sooner, given the small new unit set aside allocation of 3%, may create reliability issues for the new, more efficient units. Given that allocations are based on a low demand year (discussed later), the variability limits are restrictive, and the new unit set aside is restrictive, owners may need to wait years before allocations are available for new units due from the shutdown of existing units.

      Further, U.S. EPA states in the proposal that the analysis used to determine the appropriate size of a new unit set aside assumed that allocations for non-operating units "would be allocated to the new unit set aside after a unit had ceased operating for three consecutive years." [75 FR 45310] It is not clear from the documentation whether the <u>analysis</u> considered those allocations to be available in the fourth year or seventh year. It is unclear if the analysis (which seems to allude to availability of allocations in the fourth year) is consistent with the outcome included in the proposal (availability of allocations in the seventh year).

c. Ohio EPA is very concerned with the schedule for determining if sufficient allocations are available for all new units and for recording new unit allocations.

   In the proposal, U.S. EPA discusses how, if the new unit set aside does not contain sufficient allocations for all new units, then the allocation to all new units would be proportionally reduced. Further, for new units, allocations are not recorded until September of the year in which they are needed. This could in turn inhibit newer, more modern units from operating due to the uncertainty associated with the availability of allocations needed for the new unit and because of the lag between the new unit set aside account being populated when a unit shuts down. Ohio EPA believes it is completely unacceptable that U.S. EPA provides no assurance that the owner of a new unit will have sufficient allocations until nine months into the control year that they are needed. Further, there is no mechanism in this proposal for a new unit to become an existing unit. Over time, as more and more existing units retire and more and more new, more efficient units enter the program, they will be subject to new unit procedures and restrictions that are unreasonable.

d. Ohio EPA is concerned the proposed rule will put newer, more efficient units at greater risk of noncompliance than existing units.

   While it may be assumed that owners with allowances being distributed for shut down units will be able to trade during their six year allowance allocation period to allow for new unit growth, this is not clear in the proposal. For example, what would happen to a new unit that is not able to purchase allocations from a shutdown unit and did not receive allocations, or enough allocations, from the new unit set aside? If the assurance provisions for the state were triggered, this company would be severely penalized for being over its allocation plus the variability limit when, in fact, it was just not able to receive sufficient allocations due to the restrictive new unit set aside account and the time lag between populating that account from shut down units.

e. Ohio EPA is concerned U.S. EPA has not adequately considered all variables that may affect the amount of allocations a new unit receives.

   Allocations are based on actual emissions during the first year (control period) of operation of a new unit. In other words, the first year's actual emissions determines future allocations. This raises many questions that are not addressed in the proposal. What will occur during the first year – are new unit emissions not addressed or considered under the program in any manner? What if a unit doesn't begin operating at the beginning of the control period – will future allocations be based on only a partial year of

operation? When this is re-calculated, based on actual emissions annually thereafter, what assurance is there that owners will not maximize emissions when there is incentive to obtain a greater portion of the new unit set aside? Appropriate flexibility and safeguards are needed.

5. Ohio EPA has concerns regarding the variability limit provisions. **U.S. EPA should adjust the variability limits as they are not sufficient for some states, while for others they are excessive.**

    a. Given the insufficient SO_2 emissions budget for Ohio and the fact that 3% is taken off the top for the new unit set aside, Ohio EPA believes it is necessary to provide a greater variability limit.

    b. Ohio EPA is also concerned, as pointed out by U.S. EPA, that some small states receive very large variability limits as a fraction of their budgets.

    c. Notwithstanding the fact that Ohio EPA believes the variability limits are insufficient, Ohio EPA disagrees with any approach that would implement those variability limits starting in 2012. Sufficient time is needed in order to allow sources to transition to this new system.

6. Ohio EPA has concerns regarding the ramifications of inhibiting the limited trading program. **U.S. EPA must provide a framework that provides assurances that allocations can be traded rather than forcing owners to retain excess allocations out of fear of a future short fall.**

    a. Ohio EPA is very concerned that the insufficient allocations of SO_2, the restrictive variability limits, and limited trading scheme for Group 1 SO_2 states, in conjunction with the issues and questions raised regarding the new unit set aside, will inhibit trading. In fact, there are owners in the state that have installed state of the art NO_x controls on some units, but nevertheless have NO_x emissions greater than the proposed allocations. Due to the nature of the proposed program design, U.S. EPA cannot assume that wide-spread trading will occur to "make up" for the short fall in allocations for certain units. With such insufficient allocations, if any allocations are left at the end of the year sources will likely bank for future years rather than trade due to the significant repercussions that occur when assurance provisions are triggered.

    b. Furthermore, the framework established for the three-year variability limit also unnecessarily inhibits trading of allocations. Using a three-year variability limit that is lower than the sum of the one-year variability limits will create uncertainty, especially in that third year, as to whether enough allocations will be available. Owners will likely bank any left-over

allocations to ensure they have sufficient allocations to cover the three-year variability.

7. Ohio EPA has concerns regarding the potential for New Source Review to significantly impact the implementation schedule. **There is not sufficient time built into the current schedule to address New Source Review requirements for Greenhouse Gas emissions and U.S. EPA should correct this deficiency.**

   In the notice, U.S. EPA provides a short discussion stating its belief that the installation of air pollution control equipment such as SO_2 scrubbers, SCR, or low NO_x burners will not increase emissions for criteria pollutants above the significance thresholds to require a Prevention of Significant Deterioration (PSD) permit. The notice refers to a document prepared in 2005 that provides technical information that a PSD/New Source Review (NSR) permit will not be necessary for criteria pollutants. This document does not, however, address the emissions of greenhouse gases (GHG) that are scheduled to come under the U.S. EPA PSD permitting system starting January 2, 2011. The Federal Register states:

   > "Once the PSD requirements take effect, major sources that undergo a modification, including the addition of pollution control equipment, will trigger PSD requirements for their emissions of GHG if such emissions increase by at least 75,000 tons per year of CO_2, equivalent. EPA believes it is very unlikely that pollution control projects would cause GHG increases that would exceed the 75,000 tons per year threshold." [75 FR 45344]

   Apparently, U.S. EPA does not have a technical analysis to support this statement. Ohio EPA believes that, for some of the larger power plants, this is simply inaccurate, and U.S. EPA should not gloss over the permitting issue with a simple line in the Federal Register notice.

   For example, based on information from U.S. EPA's Clean Air Markets Division website, the Alabama Power Gaston plant in Alabama had 102,980 tons of SO_2 per year. The installation of a limestone scrubber with 95% emissions control would produce approximately 69,166 tons per year of CO_2. CO_2 emissions are currently 8,859,466 tons per year. A 2% increase in parasitic load needed to operate the scrubber would produce an additional 177,189 tons per year of CO_2. The installation of an SO_2 scrubber, in this example, would produce a total of 240,355 tons of CO_2 per year. This value is well above the 100,000 tons of CO_2 per year value needed to trip PSD by itself.

   It would be no small administrative matter to obtain a PSD permit for the scrubber installation. Consequently, Ohio EPA urges U.S. EPA to consider and adopt one of two options:

a. Add at least another 12 months to the time allotted for facilities to comply in order to obtain the PSD permit needed to install the scrubber, or

b. Provide another limited exemption in the PSD/NSR rules for a pollution control exemption.

U.S. EPA cannot intend to put utility plant owners in the position of having to violate U.S. EPA's own regulations in order to comply with the Transport Rule and, therefore, must provide adequate time for PSD permitting.

(Please note that the calculations did not include any increases as a result of the facility being used more as a result of a lower emission rate of SO_2. This would cause additional CO_2 emissions that may need to be considered in the PSD calculation.)

Ohio EPA will provide a supplemental document that details the GHG emissions calculation for the example plant.

8. Ohio EPA has concerns regarding the methodology to determine allocation budgets based on actual emissions. **U.S. EPA must use appropriate years representative of normal operation when calculating allocations based upon actual emissions.**

   a. Ohio EPA is concerned with what appears to be an arbitrary decision; using quarter 4 of 2008 and quarters 1, 2 and 3 of 2009 to establish 2012 budgets[1] – both of which were low demand years. Nevertheless, U.S. EPA appears to believe that this time period accurately represents normal emissions from these sources. U.S. EPA should recognize that the nation, and particularly the Midwest, was in a severe economic downturn during 2008 and 2009.

   b. Ohio's budget, and unit specific allocations, are being established based on a specific period of time, a time of economic crisis, without any future adjustments being considered to those base budgets taking into account improvement in the economy, and therefore, demand. The variability limits are not sufficient to make up for the use of severely low demand years when calculating base budgets. In addition, some units were not operating for some or all of this period in order to install controls to address CAIR. It appears from the technical support documents that U.S. EPA intended to substitute other quarters in the calculations when emissions were zero; however, if emissions were drastically under

[1] When actual emissions are lower than modeled 2012 projections.

previous quarter's emissions (e.g., a unit may have operated for only a small part of a quarter) there was no such adjustment. In many cases, units are allocated budgets for 2012 and 2013 based on the assumption that demand will be as low as it was in 2008 and 2009. Such units may be forced to be underutilized if demand does improve.

c. Ohio EPA believes it is imperative that U.S. EPA take the time to ensurethat the appropriate historical emissions and assumptions are used when establishing allocations of the budgets as these allocations are not slated to be adjusted in the future. Ohio EPA believes it would be appropriate to use a similar methodology used when establishing the variability limits, i.e., averaging a series of years. The variability limit is based on the average heat input over several years, but starting budget allocations are based on emissions in one arbitrary year only, which, in this case, is a low demand year. A multi-year averaging approach should be used, continuing to account for controls put in place since such time, and making appropriate corrections and substitutions for periods of non (or very low) operation.

9. Ohio EPA believes the overall state NO_x budgets[2] are achievable. **However, U.S. EPA must provide sufficient time for all units to meet the implementation deadline for their specific allocations and ensure that the allocations are determined in a fair and accurate manner.**

   The CAIR NO_x budget for Ohio was 45,664 tons during the ozone season of 2009, dropping to 39,945 tons in 2015. The Proposed Transport Rule proposes a budget of 40,661 tons in 2012. In contrast, Ohio utilities emitted 36,076 tons in 2009 (due in part to a relatively cool summer and low demand). In short, the 2009 NO_x emissions from Ohio utilities were less than the proposed 2012 NO_x emissions budget. Although Ohio believes the overall state budget is achievable, there are inconsistent calculation methods and/or erroneous data that was used to establish the unit level allocations, which must be corrected before finalizing unit level allocations.

10. Ohio EPA has concerns with the constantly moving regulatory target and the lack of coordination between programs within U.S. EPA. **In establishing requirements and implementation schedules for the Transport Rule, U.S. EPA must take into consideration all impending regulatory requirements that states and the regulated entities are facing.**

    a. U.S. EPA has stated that they likely will strengthen the NO_x budgets based on a second Transport Rule to be promulgated to assist with

[2] Ohio EPA will provide comments on unit specific errors which will be addressed under separate cover due by October 15, 2010.

attaining the soon to be revised 2008 ozone standard. Consistent with comment 1.a. above, U.S EPA should recognize that a new ozone standard will be issued shortly and promulgate a Transport Rule that addresses the revised standard, with an appropriate implementation schedule.

Ohio EPA has serious concerns about the constantly moving regulatory targets. In order to provide more certainty so that appropriate planning can occur, Ohio EPA believes U.S. EPA should take the time now, within the current Proposed Transport Rule, to address state NO_x budgets needed for the revised ozone standard and provide appropriate and reasonable implementation schedules. It would be our preference to see a more restrictive NO_x budget, adequate time to reach that lower NO_x level, and then have those NO_x levels maintained for an extended time period.

b. Given U.S. EPA's acknowledgement in the proposal that there will be a series of regulatory actions over the course of the next two years that will affect the power sector, better planning and coordination regarding the imposition of these programs is needed.

c. Ohio EPA is also extremely concerned that each time U.S. EPA promulgates a new (more restrictive) air quality standard, U.S. EPA intends to assess the need to revise the Transport Rule and establish more restrictive budgets. First, we expect that at some point, it will be difficult or impossible to develop and implement technology that can achieve the new, more restrictive budgets. Second, the regulated community must have some degree of certainty to timely plan investments in controls, fuels, and operations at generating facilities in order to achieve necessary emission levels by the relevant deadlines. We would recommend that any budget U.S. EPA promulgates for an emissions sector would not change for at least ten years and then only if U.S. EPA demonstrates that additional controls are technically achievable and cost effective.

11. Ohio EPA has concerns regarding the 1% contribution threshold. **U.S. EPA must take into consideration the impact of selecting such a small percent threshold as the NAAQS continue to be strengthened.**

Related to the continuous tightening of the rules, Ohio EPA has concerns regarding the 1% contribution threshold for identifying significant contributors to downwind states' air quality nonattainment and maintenance problems, which forms the basis of the Proposed Transport Rule. As ambient air quality standards continue to be revised and strengthened, the continued use of a 1%

threshold will eventually become impractical and infeasible because it continually rachets down state budgets and unit level allocations.

12. Ohio EPA supports the use of energy efficiency improvements. **U.S. EPA should incorporate energy efficiency incentives into the final Transport Rule.**

    In the proposal, U.S. EPA emphasized the importance of energy efficiency improvements. Ohio EPA agrees that energy efficiency projects will reduce emissions in a cost-effective manner. U.S. EPA ultimately decided not to incorporate such programs in this proposal. Ohio EPA believes U.S. EPA should reconsider this decision and provide a workable way energy efficiency efforts at utilities can be used as a compliance mechanism for the Transport Rule.

13. Ohio EPA also has concerns with the proposed Federal Implementation Plan (FIP) process. **U.S. EPA must ensure states are able to address the transport of pollutants through Section 110 of the Clean Air Act, via a State Implementation Plan, and provide sufficient guidance to ensure approvability.**

    Although we understand the need for emission reductions as soon as possible, this "FIP first" approach usurps the fundamental right of the states to develop their own SIP. Section 110 of the Clean Air Act identifies the responsibility of states, as part of their implementation plan, to provide the provisions addressing the transport of pollutants that may contribute to nonattainment or interfere with maintenance. The U.S. EPA proposal goes into detail on how states are free to develop state plans as alternatives to the FIP, but also makes clear that U.S. EPA does not believe the proposed time line provides sufficient time for state plans to be developed and is also unsure about the appropriate criteria for approval of these state plans. In other words, states are free to start work on their own plans, but cannot be certain as to their approvability until U.S. EPA finalizes those criteria, which will undoubtedly take some time. In our view, this "FIP first" approach is inconsistent with the structure of the Clean Air Act that places the responsibility of attaining ambient air quality standards with the states. For states that choose to develop a SIP, it is essential that U.S. EPA provide appropriate and timely guidance to ensure that approval of a SIP could occur by 2012. It is also essential that U.S. EPA provide flexibility to states in developing a SIP. States should be free to implement an allowance structure that provides incentives, such as energy efficiency, provided state budgets remain intact and consistent with U.S. EPA's final rule.

Ohio EPA is still reviewing the corrected data from U.S. EPA's September 1, 2010, "Notice of Data Availability Supporting Federal Implementation Plans To Reduce Interstate Transport of Fine Particulate Matter and Ozone" [75 FR 53613] and will submit additional comments by the October 15, 2010 deadline. Ohio EPA has already

identified a number of concerns and errors related to assumptions in the latest modeling platform. In its Notice, U.S. EPA acknowledges that these changes resulting from the updated model could impact the final rulemaking in a number of ways, including changing the emission projections that were used to determine which downwind areas have air quality concerns, which states contribute to those problems, and/or changing cost and emission projections used in the multi-factor test to determine the amount of emissions that represent significant contribution. In turn, these changes will likely impact budget allocations. Ohio EPA is extremely concerned that given these data changes, additional concerns may arise when the final rule is promulgated, albeit with no meaningful opportunity for comment. **Ohio EPA requests U.S. EPA to provide additional opportunities for notice and comment on the final data changes, including state budgets and allocations to specific units, prior to finalizing the Transport Rule.**

Lastly, this proposal is undoubtedly one of the most technically extensive proposals U.S. EPA has produced to date. We recognize it has taken significant resources and time for U.S. EPA to develop this proposal in an attempt to address the court remand of CAIR. However, Ohio EPA has found it difficult to sift through the thousands of pages of documentation in the time provided for comment. Furthermore, much of the documentation is not transparent. For example, we have found documentation that states that a specific approach was used in developing part of this proposal (e.g., allocation methods) but then find when viewing the results that the specified approach was not, in fact, used. The basis for unit specific allocations, NEEDS V3.02, was updated mid-way through this comment period, to NEEDS V4.10, yet it is still riddled with errors that make it difficult to understand the methodology used and to provide meaningful comments. We urge U.S. EPA to not rush this rule process but to develop a well thought out and workable approach based on accurate data obtained by working with the states and regulated entities.

Again, Ohio EPA thanks you for this opportunity to comment.

Sincerely,

Chris Korleski
Director
Ohio EPA

Cc: Bob Hodanbosi, Chief Division of Air Pollution Control, Ohio EPA