JACKSONKELLY
ATTORNEYS AT LAW PLLC

201 NORTH ILLINOIS STREET • 16th FLOOR SOUTH TOWER • INDIANAPOLIS, INDIANA 46204 • TELEPHONE: 317-632-4626 • TELECOPIER: 317-610-3239
www.jacksonkelly.com

Direct Dial No.: (317) 632-4626
Facsimile No.: (317) 610-3239
Email: skropp@jacksonkelly.com

August 4, 2011

EPA Docket Center (EPA/DC)
Environmental Protection Agency
Mailcode: 2822T
1200 Pennsylvania Ave., NW.
Washington, DC 20460

Docket IDs No. EPA-HQ-OAR-2009-0234 and EPA-HQ-OAR-2011-0044

Gentlemen:

The Midwest Ozone Group (MOG) is an ad hoc coalition of companies and organizations that are vitally interested in the U.S. Environmental Protection Agency's (EPA) proposed Clean Air Act (CAA) NESHAP and NSPS rules affecting the EGU sector, published March 16, 2011 (76 FR 24975). We are pleased to have the opportunity to comment on EPA's proposed rule.

MOG members own and operate numerous fossil fuel-fired steam electric units throughout the Midwest and Southeast that are capable of generating in excess of 95,000 MW of fossil-fueled electricity.

While MOG is providing comments on the proposed rule, it is troubled by the fact that it is commenting on a proposal that contains numerous admitted and, in MOG's opinion, significant data and assumption errors regarding a number of issues. MOG notes that the notice and comment process is designed to provide the public an opportunity to address the merits of a proposed rule, and the acknowledged errors in this proposal surely compromise the quality of the EPA analysis. MOG therefore urges EPA to correct the flaws and issue a supplemental notice of proposed rulemaking with an adequate time for public comment on the revised proposed rule.

The foregoing notwithstanding, MOG offers the following comments regarding the proposal:

1. EPA's Conclusion that Regulating EGUs Under CAA §112 is "Appropriate and Necessary"

EPA seeks comments on a number of issues, including whether its conclusion that regulating EGUs under CAA §112 is "appropriate and necessary." Based on the estimated benefits attributed to mercury, metal HAP, and acid gas reductions in the proposed rule, MOG believes that the EPA conclusion is not supported by either science or economics. Comments regarding the economics are provided below.

With respect to the science, MOG believes that the reduction of mercury, metal HAP, and acid gasses is not technically justified. The methylmercury health effects cited in the rule proposal are replete with acknowledged uncertainties that make the estimated benefits suspect at best.

2. The EPA Choice of Best Performing Units used Establish the Proposed Rule is a Fatal Flaw in the Proposed Rule

MOG is advised that the Coal Utilization Research Council (CURC) is providing numerous comments criticizing EPA's choice of best performing units that underpin the EGU MACT. The CURC concludes that "[a]s proposed, the Utility MACT, independently and especially in combination with other pending rules for the industry, will drive a significant number of existing coal units to be prematurely retired, thereby no longer using this domestic, affordable source of energy, and will effectively prohibit any new coal-based electric generation from being developed." In addition, comments on the proposed rule submitted by Unions for Jobs and the Environment on July 8, 2011, note that data in the Information Collection Request (ICR) database compiled by EPA purportedly for use in developing the proposed emissions standards demonstrate that not a single existing coal fired unit in the database can meet the proposed MACT floor for HCl, PM, and Hg emissions.

Importantly, CAA §112(d) defines MACT as

> "The maximum degree of reduction in emissions that is deemed achievable for new sources in a category or subcategory shall not be less stringent than the emission control that is **achieved in practice** by the best controlled similar source, as determined by the Administrator. Emission standards promulgated under this subsection for existing sources in a category or subcategory may be less stringent than standards for new sources in the same category or subcategory but shall not be less stringent, and may be more stringent than—
>
> **(A)** the average emission limitation achieved by the best **performing** 12 percent of the existing sources (for which the Administrator has emissions information), excluding those sources that have, within 18 months before the emission

> standard is proposed or within 30 months before such standard is promulgated, whichever is later, first achieved a level of emission rate or emission reduction which complies, or would comply if the source is not subject to such standard, with the lowest achievable emission rate (as defined by section 7501 of this title) applicable to the source category and prevailing at the time, in the category or subcategory for categories and subcategories with 30 or more sources, or… (emphasis supplied)

It is clear from the CAA that Congress intended MACT standards to be based on actual performance of existing units. MOG suggests that, in light of the CURC analysis and the EPA ICR data cited in the UJAE comments, setting the EGU MACT standard at the proposed level will not comply with the CAA and is inappropriate as a MACT standard.

3. EPA Has Failed to Properly Estimate EGU Compliance Costs and Their Impact on the EGU Sector

EPA estimates the annual incremental compliance costs for the proposed rule at $10.9 billion in 2015, in 2007 dollars. *See* 76 FR 25073. Base on analyses discussed below, MOG believes that EPA has underestimated the annual incremental compliance costs.

The CAA establishes MACT standards as follows:

> Emissions standards promulgated under this subsection and applicable to new or existing sources of hazardous air pollutants shall require the maximum degree of reduction in emissions of the hazardous air pollutants subject to this section (including a prohibition on such emissions, where achievable) **that the Administrator, taking into consideration the cost of achieving such emission reduction**, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing sources in the category or subcategory to which such emission standard applies…" (emphasis supplied)

As is the case in the comment above noting that standards are required to be based on actual performance of existing units, the CAA is unambiguous that EPA must consider the cost of controls in determining a MACT standard for any sector. MOG believes that EPA has failed to accurately estimate the costs of the proposed rules.

For example, in a May, 2011 draft analysis by NERA, prepared for the American Coalition for Clean Coal Energy, NERA concludes that coal unit retirements would increase by about 48 GW, electricity sector costs would increase by $184 billion (present value over 2011-2030 in 2010$) or $17.8 billion per year (including coal unit compliance costs that include $72

billion in overnight capital costs, coal-fired generation in 2016 would decrease by about 13% and electricity sector coal demand in 2016 would decrease by about 10%, natural gas-fired generation in 2016 would increase by about 26% and Henry Hub natural gas prices 2016 would increase by about 17% (increased natural gas prices would increase natural gas expenditures by residential, commercial, and industrial sectors by $85 billion (present value over 2011-2030 in 2010$) or $8.2 billion per year, average U.S. retail electricity prices in 2016 would increase by about 12%, with regional increases as much as about 24%, and net employment in the U.S. would be reduced by more than 1.4 million job-years over the 2013-2020 period, with sector losses outnumbering sector gains by more than 4 to 1. The costs estimated by NERA, including the increased natural gas prices and increases retail price of power, are more than double the published EPA estimated total annual incremental compliance cost of $10.9 billion in 2015 in 2007 dollars.

Another analysis of all of the presently proposed (circa 2011) EPA rules affecting the EGU sector was prepared by ICF for the Edison Electric Institute (EEI). The ICF study concludes that the proposed EPA rules in toto will impose incremental capital costs on the industry (excluding operation and maintenance costs) of between $141 billion and $247 billion, either of which exceeds the published EPA estimates.

Accordingly, MOG believes that higher than estimated annual incremental compliance costs for the EGU sector will translate into significantly more retirements than the 8 GW EPA predicts (*See* 76 FR 25074), and that the increased retirements will lead to reliability issues on the US power grid as well as significant increases in power costs that the US economy is scarcely prepared to assimilate. EPA should carefully analyze the cost estimates and impact on grid reliability and power costs in preparing the final rule and revise the final rule accordingly.

4. <u>The Proposed Rule is Focused Largely on Non-mercury Impacts and the Benefits Related to Mercury Reductions are Miniscule Compared with the Cost of the Rule</u>

EPA discusses at length the costs and benefits of the proposed rule. However, MOG notes that the vast majority of benefits claimed by EPA for the rule is related to the co-benefits of PM2.5 and sulfate reductions. The benefits attributed to mercury reductions alone amount to a nearly infinitesimal range of between 0.0042% and 0.007% of the total range of $59 to $140 billion in estimated benefits. The balance of estimated benefits is attributed by EPA to the co-benefits of CO2 and PM2.5 reductions. Moreover, while EPA touts the proposed rule as a HAPS rule that will reduce not only mercury but other HAP metals and acid gasses, EPA has published *no* estimated benefits for the reductions of either metal HAPS or acid gasses. *See* Preamble discussion at 76 FR 24979. MOG believes that a MACT standard must be supported by clear economic benefits. EPA has failed completely to provide any economic justification for the proposed rule with respect to its stated purpose of reducing mercury, metal HAP, and acid gasses from EGUs.

5. EPA Acknowledges Great Uncertainties Associated with Projected Mercury Benefits

The EPA preamble to the proposed rule acknowledges a number of uncertainties in the manner in which the risk analysis of impacts of the rule was prepared. EPA states that key sources of uncertainty potentially impacting the risk analysis include uncertainty in predicting mercury deposition over watersheds using CMAQ, uncertainty in predicting which watersheds will be subject to high-end fishing activity and the nature of that activity (e.g., frequency of repeated activity at a given watershed and the types/sizes of fish caught), uncertainty in using MMaps to apportion exposure and risk between different sources, including U.S. EGUs, and predicting changes in fish tissue methylmercury levels for future scenarios, and potential under-representation of watersheds highly impacted by U.S.-attributable mercury deposition due to limited methylmercury sampling. The number and significance of these acknowledged uncertainties suggests to MOG that the benefits are not accurately estimated, raising additional concern about the EPA estimated benefits.

6. EPA Reliance for Economic justification of the Proposed Rule on Benefits of Reductions in Criteria Pollutant Levels is Inappropriate

MOG notes that the vast majority of EPA estimated economic benefits of the proposed rule result from the purported benefits or co-benefits from reductions in PM2.5 precursors and CO_2. The monetized benefits of the proposed rule are purportedly associated with health benefits, yet significantly less than one percent of the estimated benefits of the proposed rule are attributed to reductions in mercury and no monetized benefits are attributed to reductions in metal HAP, acid gasses, or SO_2. Moreover, MOG believes that the health based ambient standards will all be attained through final implementation of controls that are already on-the-books (OTB), with no MACT based or other reductions necessary. If EPA can show no monetized human health impacts from reductions of mercury, metal HAP, acid gas, or SO_2, then MOG believes that it is inappropriate to establish a MACT for those substances.

a. MOG modeling shows attainment with health based standards with implementation of CAIR based OTB controls

> On October 1, 2010 MOG submitted comments on the proposed Clean Air Transport Rule (CATR). The principal focus of those comments was on air quality and modeling analyses that had been conducted on behalf of MOG. Those analyses demonstrate that the CATR as currently proposed is not needed to address its stated air quality objectives. In addition, MOG noted that EPA had failed to account for the dramatic improvements that have occurred in air quality in recent years, and had failed to recognize how much air quality will improve in the future as the result of OTB controls in its analysis of the proposed CATR. Had EPA properly undertaken this analysis it would have learned that these existing controls applied to the areas examined are more than sufficient not only to have eliminated "significant contribution,"

but also, with the exception of two monitors impacted by local sources, to have achieved attainment of both the ozone and PM national ambient air quality standards [NAAQS] that both the proposed CATR and the original CAIR rule were intended to help achieve.

Specifically, the CATR and the analysis of this proposed MACT and NSPS fail to consider the extensive amounts of controls installed after 2005, resulting in a large and erroneous overestimation of emissions reductions necessary to eliminate any significant contribution to downwind nonattainment of NAAQS in many states. EPA was well-aware when it proposed the CATR using only a 2005 EGU emissions inventory that significant new controls had been and were being installed on vast numbers of EGUs in response to the CAIR and other OTB requirements. The same faulty analysis for the CATR is carried into and affects the EPA analysis of the MACT and NSPS standards.

b. The most recent air quality data indicate substantially fewer nonattainment and maintenance areas than EPA's data.

Comments filed by MOG on October 1, 2010, regarding the proposed CATR note that, at MOG's request, ENVIRON examined EPA's list of nonattainment and maintenance monitoring sites for 2012 as defined in the proposed CATR to determine which of these sites were actually already in attainment of the NAAQS based on observations from 2006-2009. The results were set forth in an attachment to the comments. They showed that sites already in attainment based on most recent data represent locations where transport from upwind sources is not contributing to nonattainment or maintenance problems. In performing the comparison, ENVIRON used design values (DVs) calculated from annual summary statistics (*e.g.,* annual fourth highest daily maximum 8-hour average ozone concentration) for 2006-2009. In some cases, insufficient data were available from which to compute the annual summary statistic. In those cases, ENVIRON used procedures for filling in missing data similar to those used by EPA for computing air quality trends. This is a conservative approach within the context of this analysis as DVs based on filled-in data may suggest a monitoring site is a nonattainment or maintenance site whereas the EPA Modeled Attainment Test Software does not contain a DV for the monitoring site.

Total counts of nonattainment and maintenance monitoring sites based on EPA's 2012 projections in the proposed CATR versus nonattainment and maintenance sites determined from

2006-2009 data showed that over 80% of the sites predicted by EPA to be in nonattainment of the ozone or PM2.5 standards in 2012 were already in attainment as of 2009 based on an average of the 2006-2008 and 2007-2009 DVs. Furthermore, over 80% of the PM2.5 2012 maintenance sites and 1/3 of the ozone 2012 maintenance sites were no longer maintenance sites as of 2009. Those results indicate that air quality has improved more rapidly than predicted by EPA's proposed CATR modeling.

The same flawed analysis appears to be included in this proposed rule. MOG therefore suggests that EPA reconsider the proposed rule, especially the rule sections related to reduction of PM2.5 precursors, in light of the existing significantly better ambient air quality than EPA used in its analysis of the impacts of the proposed rule.

c. EPA modeling shows similar results occurring with CATR based OTB controls

EPA's own modeling in support of recently finalized Cross State Air Pollution Rule (CSAPR) projects attainment with the existing ozone and PM2.5 NAAQS by 2014 in all but a few locations. Using data from EPA's attainment modeling tool, MATS, it can be seen in that EPA predicts that no counties in the CSAPR domain will be in exceedance of the exiting 85 ppb ozone standard, only two counties (Allegheny, PA and Wayne, MI) will be in exceedance of the 15 ug/m^3 annual PM standard, and 23 counties will be in exceedance of the 35 ug/m^3 24-hr PM standard as early as 2016. All of this improvement in air quality would be accomplished with no EGU MACT in place. MOG submits that this EPA data supports a conclusion that the EGU MACT is unnecessary.

d. EPA is taking credit for health benefits that will occur due to other programs regardless of whether the proposed rule is promulgated

The vast majority of health benefits provided by EPA it its proposal attribute benefits to reductions of PM2.5 precursors. Although EPA goes to great lengths to explain away the fact that there are few health benefits related to reductions in mercury, metal HAP, and acid gas from EGUs, (*See* discussion at 76 FR 24989) the fact is that are hardly any such benefits and EPS uses a tortured reading of CAA §112 to justify the proposed reductions in those constituents. Even the monetized benefits of PM2.5 precursors may have been used to support prior PM2.5 EGU controls. It is difficult to determine specifically how many times EPA has "counted" reductions in PM2.5 precursors, but MOG

> believes that it is inappropriate to count as benefits of the proposed MACT rule any reductions that would have been required under prior promulgated EGU control programs that are now on the books, e.g, the CAIR. MOG endorses the comments in this respect of the Utility Air Regulatory Group (UARG). UARG requested an analysis by NERA of the claimed health benefits of the proposed rule. NERA concluded that, while the EPA Regulatory Impact Analysis (RIA) does not clearly state whether EPA actually counted the monetized benefits of PM2.5 emissions reductions twice, the RIA clearly did include as benefits the monetized benefits from reductions of PM2.5 that will occur due to the proposed MACT but that are based on PM2.5 ambient levels that are below the pm2.5 NAAQS. Including those benefits, which likely were used to justify the PM2.5 NAAQS as well, is not appropriate. MOG supports the NERA conclusions and supports the comments submitted by UARG with respect to PM2.5 precursor benefits.

7. EPA's Reliance on MACT Controls to Drive Reductions in Criteria Pollutants is Inconsistent with States' Primary Role in making Determinations Regarding Implementation of SIP Controls

The proposed rule would use MACT controls to drive reductions of PM2.5, which is a criteria pollutant. In fact, EPA is attempting to use SO2 as a surrogate to over-control a criteria pollutant as part of the MACT process. The Clean Air Interstate Rule (CAIR) was initially based on an assumed SO2 control level of 95%. The proposed MACT rule using SO2 as a surrogate for HCl will require SO2 removal efficiencies at 97% or higher. MOG requests that EPA provide data demonstrating that a surrogate SO2 for HCl emission limit that reflects 95% SO2 control would not assure compliance with the HCl emission limit 0.002 lb./mm Btu. If it cannot, the SO2 surrogate limit should be amended to a level that only requires 95% SO2 removal efficiency, as was envisioned in the CAIR.

MOG submits that the CAA is quite clear in establishing an orderly process by which delegated states attain criteria pollutant NAAQS and MOG believes that the use of MACT controls is not appropriate for that purpose. CAA §110 establishes the process for state implementation plans for national primary and secondary ambient air quality standards. Section 110(a) requires, in pertinent part, that

> (1) Each State shall, after reasonable notice and public hearings, adopt and submit to the Administrator, within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national primary ambient air quality standard (or any revision thereof) under section 7409 of this title for any air pollutant, a plan which provides for implementation, maintenance, and enforcement of such primary standard in each air quality

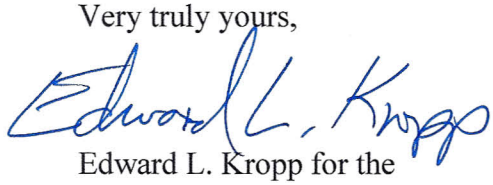
> control region (or portion thereof) within such State. In addition, such State shall adopt and submit to the Administrator (either as a part of a plan submitted under the preceding sentence or separately) within 3 years (or such shorter period as the Administrator may prescribe) after the promulgation of a national ambient air quality secondary standard (or revision thereof), a plan which provides for implementation, maintenance, and enforcement of such secondary standard in each air quality control region (or portion thereof) within such State…
>
> (2) Each implementation plan submitted by a State under this chapter shall be adopted by the State after reasonable notice and public hearing. Each such plan shall—
>
> (A) include enforceable emission limitations and other control measures, means, or techniques (including economic incentives such as fees, marketable permits, and auctions of emissions rights), as well as schedules and timetables for compliance, as may be necessary or appropriate to meet the applicable requirements of this chapter…
> (D) contain adequate provisions—
> (i) prohibiting, consistent with the provisions of this subchapter, any source or other type of emissions activity within the State from emitting any air pollutant in amounts which will—
> (I) contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard, or
> (II) interfere with measures required to be included in the applicable implementation plan for any other State under part C of this subchapter to prevent significant deterioration of air quality or to protect visibility,
> (ii) insuring compliance with the applicable requirements of sections 7426 and 7415 of this title (relating to interstate and international pollution abatement)… (emphasis supplied)

The CAA §110 process described above has been the anchor of air quality management since the promulgation of the CAA Amendments of 1970 and, based on the dramatic improvement in air quality since 1970, has worked well for more than 40 years. MOG believes that the proposed rule is inconsistent with the CAA §110 process since it would utilize CAA §112 MACT controls for the purpose of reducing emissions of PM2.5, which is a criteria pollutant.

For all of the aforementioned reasons, MOG urges EPA to reconsider and withdraw this ill-conceived proposed rule. The fact is that this rule is neither technically nor economically justified. MOG appreciates the opportunity to provide comments and looks forward to working

with EPA as it continues to develop a scientifically based air quality management program that is both protective of human health and flexible enough to support a recovering US economy.

Very truly yours,



Edward L. Kropp for the
Midwest Ozone Group