UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 0 8 2011

OFFICE OF
AIR AND RADIATION

The Honorable Fred Upton
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515-6115

Dear Mr. Chairman:

Thank you for your letter of November 8, 2011, co-signed by two of your colleagues, regarding the U.S. Environmental Protection Agency's Mercury and Air Toxics Standards (MATS) rule – also referred to as the Utility MACT rule – set to be finalized by December 16, 2011. The Agency is preparing detailed responses to the questions set forth in your letter. In the interim, I am writing to provide you with further information related to your inquiry.

The MATS rule will substantially reduce power plant emissions of mercury, other toxic metals, and acid gases. Mercury can cause neurological damage in children who are exposed before birth and is associated with impacts on children's cognitive thinking, memory, attention, language, and fine motor and visual spatial skills. Toxic metals, such as arsenic, chromium, and nickel cause cancer and other health risks. Acid gases cause lung damage and contribute to asthma, bronchitis, and other chronic respiratory diseases, especially in children and the elderly. The same control equipment that reduces emissions of these toxics will also reduce fine particle pollution, yielding important co-benefits.

At the proposal stage, the EPA's analysis projected that emission reductions achieved by the MATS rule will prevent, each year beginning in 2016, approximately:

- 6,800 to 17,000 premature deaths
- 11,000 heart attacks
- 120,000 cases of childhood asthma symptoms
- 11,000 cases of acute bronchitis among children
- 12,200 emergency room visits and hospital admissions.

The control technologies necessary to implement the proposed standards have been commercially available for some time, are cost effective, and are currently in use on many power plants across the United States.

Your letter requests information related to the EPA's ability to review and respond to the more than 22,000 unique comments submitted in response to the proposed MATS rule. I should mention, first, that of the over 900,000 total comments submitted on the rule, the vast majority are supportive of the proposed standards. Of the 22,000 unique comments, many raise similar or the same issues. The EPA

has marshalled the resources necessary to review and respond to these comments. Included in the response effort are approximately 75 staff from the Office of Air and Radiation as well as staff from other offices at the agency and contractor resources. The EPA is committed to issuing a final rule that is fully consistent with the requirements of the Clean Air Act.

In your letter of November 8 and in prior correspondence, you expressed concerns regarding the impacts of the MATS rule and other EPA power sector rules on electric reliability. In the Regulatory Impact Analysis for the proposed MATS rule, the EPA analyzed the impacts of the proposed Cross State Air Pollution Rule (CSAPR) and the proposed MATS rule. That analysis concluded that these rules would result in only modest levels of power plant retirements and would not adversely affect generation resource adequacy in any of the 32 subregions of the country. Contrary to some recent misleading press reports, the EPA's analysis of reliability issues was presented in a full and open manner in the preamble to the proposed MATS rule and the accompanying Regulatory Impact Analysis and technical support document titled, "Resource Adequacy and Reliability in the IPM Projections for the Toxics Rule," which is available in the docket and on the EPA website for MATS. In addition, the Agency requested comment on reliability issues. For your benefit, I am enclosing a document with excerpts reflecting this presentation and request for comment. An updated final analysis of reliability issues will be issued in conjunction with the issuance of the final MATS rule.

In its analysis and other statements, the EPA has acknowledged that, even where generating capacity is adequate on a regional basis, it is possible that localized reliability challenges may develop in connection with particular plant retirements or delays in the installation of pollution controls. As we have noted in prior correspondence with you, the Clean Air Act provides adequate flexibility to bring sources into compliance with regulatory requirements while maintaining reliability. A number of stakeholders have provided public comments to the EPA proposing various alternative "safety valve" mechanisms to address local reliability issues should they emerge. We are looking carefully at these proposals and are committed to ensuring that our rules are implemented in a manner that does not threaten reliability.

Last week, the Department of Energy (DOE) released a report presenting an independent assessment of generation resource adequacy under the final CSAPR and proposed MATS rules. The report is posted on DOE's website and can be accessed at: http://energy.gov/pi/office-policy-and-international-affairs/office-policy-and-international-affairs/office-policy--11. The DOE assessment uses a highly-conservative stringent case analysis that is substantially more stringent than the EPA's actual rules. The report determines that, even in this highly conservative hypothetical scenario, capacity reserve margins are preserved in every region of the country, with the addition of only 1 gigawatt of additional unplanned natural gas generation (or equivalent demand side resources) necessary in a single region of the country. The report also concludes that, assuming prompt and responsible action by regulators and utilities, the timelines associated with construction of new generation and retrofit installation of pollution control technologies are generally comparable to compliance timelines under the Clean Air Act. It finds, as the EPA has consistently emphasized, that if localized reliability concerns arise, the Clean Air Act provides flexibility mechanisms to bring sources into compliance over time while maintaining reliability.

These results are consistent with the findings of a Bipartisan Policy Center report issued in July of this year, which concluded that "scenarios in which electric system reliability is broadly affected are unlikely to occur."[1] M.J. Bradley & Associates and the Analysis Group have completed a series of reports on behalf of a group of electric utilities concluding that "the electric industry can comply with the EPA's air pollution rules without threatening electric reliability." An update to this report released in November underscores "the many tools that are available for ensuring electric reliability" as companies comply with these rules.[2]

In your letter of November 8, you ask about the annual long-term reliability assessment released by the North American Electric Reliability Corporation (NERC) on November 29. As you know, the assessment includes a stand-alone assessment that purports to address the impacts of the EPA regulations. EPA staff had the opportunity to provide input to NERC with regard to this assessment and was briefed on the draft report prior to its issuance. Although the EPA respects NERC's important role in this area and values its ongoing relationship, we have expressed concerns that the NERC assessment may cause confusion or misunderstanding.

As set forth in a recent letter from the EPA's Deputy Administrator Bob Perciasepe to NERC, which I am enclosing, the EPA identifies two fundamental shortcomings of the NERC assessment. First, because NERC assumes regulatory requirements substantially more stringent than those actually proposed by the EPA, the levels of retirements NERC projects are greatly overstated. This is most dramatic with regard to the assumptions about the EPA's proposed cooling water intake structure rule under Section 316(b) of the Clean Water Act, which account for the majority of retirements NERC projects. With regard to the MATS rule, to which NERC attributes substantially fewer retirements, the analysis appears to assume that many units must install wet flue gas desulfurization and that every unit must have a fabric filter to comply with the rule. This scenario is highly unlikely, given the availability of lower-cost control options for most facilities. Second, the NERC assessment assumes that utilities, grid planners and operators, and State and Federal regulators take no action to address any reliability issues that emerge in response to these projected retirements. In the real world, utilities, grid planners and operators, and utility regulators have a demonstrated track record of successfully identifying such issues and responding through construction of new generation, transmission upgrades, and implementation of demand-side measures.

Your letter also asks about the Federal Energy Regulatory Commission (FERC) Technical Conference held on November 29 and 30. As you may know, I had the honor of speaking at the conference, which was also attended by several EPA staff. I believe the conference provided an important forum for the exchange of views and that the information presented will be valuable to industry stakeholders, grid planners and operators, State regulators, NERC and the regional reliability organizations, FERC, and the EPA as we move forward with the implementation of the MATS rule and our other power sector rules.

The EPA has actively consulted with DOE and FERC on reliability and other issues throughout the MATS rulemaking process and will continue to do so as we move towards the implementation phase for the final MATS rule. In addition, DOE and FERC each participated in the interagency review process for the proposed MATS rule and are doing so for the draft final rule, which is currently under review.

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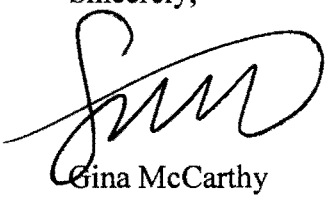
[1] Bipartisan Policy Center, June 2011, "Environmental Regulation and Electric System Reliability."

[2] M.J. Bradley & Assocs. LLC & Analysis Group, November 2011, "Fall 2011 Update: Ensuring a Clean, Modern Electric Generating Fleet while Maintaining Electric System Reliability."

The EPA has had the benefit of substantial, detailed, and often constructive comments on reliability issues related to the proposed MATS rule from a broad variety of stakeholders – including utilities, Regional Transmission Operators, and State public utility regulators. In addition, the EPA has actively consulted with a broad range of these same stakeholders at various points in the rulemaking process and looks forward to continuing engagement when we begin implementation.

Thank you for your interest in this important subject. Again, the EPA is working to provide more detailed information in response to the questions in your letter. If you have questions in the interim, please contact me or have your staff call Diann Frantz in the EPA's Office of Congressional and Intergovernmental Relations at (202) 564-3668.

Sincerely,



Gina McCarthy
Assistant Administrator

Enclosures

Enclosure

References to Reliability in the Proposed Mercury and Air Toxics Standards Preamble Published on May 3, 2011 (page numbers are for Vol. 76 of the Federal Register)

Page 25,054

We believe that the requirements of the proposed rule can be met without adversely impacting electric reliability. Our analysis shows that the expected number of retirements is less than many have predicted and that these can be managed effectively with existing tools and processes for ensuring continued grid reliability. Further, the industry has adequate resources to install the necessary controls and develop the modest new capacity required within the compliance schedule provided for in the CAA. Although there are a significant number of controls that need to be installed, with proper planning, we believe that the compliance schedule established by the CAA can be met. There are already tools in place (such as integrated resource planning, and in some cases, advanced auctions for capacity) that ensure that companies adequately plan for, and markets are responsive to, future requirements such as the proposed rule. In addition, EPA itself has already begun reaching out to key stakeholders including not only sources with direct compliance obligations, but also groups with responsibility to assure an affordable and reliable supply of electricity including state Public Utility Commissions (PUC), Regional Transmission Organizations (RTOs), the National Electric Reliability Council (NERC), the Federal Energy Regulatory Commission (FERC), and DOE. EPA intends to continue these efforts during both the development and implementation of this proposed rule. It is EPA's understanding that FERC and DOE will work with entities whose responsibility is to ensure an affordable, reliable supply of electricity, including state PUCs, RTOs, the NERC to share information and encourage them to begin planning for compliance and reliability as early as possible. This effort to identify and respond to any projected local and regional reliability concerns will inform decisions about the timing of retirements and other compliance strategies to ensure energy reliability. EPA believes that the ability of permitting authorities to provide an additional 1 year beyond the 3-year compliance time-frame as specified in CAA section 112, along with other compliance tools, ensures that the emission reductions and health benefits required by the CAA can be achieved while safeguarding completely against any risk of adverse impacts on electricity system reliability. Between proposal and final, EPA will work with DOE and FERC to identify any opportunities offered by the authorities and policy tools at the disposal of DOE and/or FERC that can be pursued to further ensure that the dual goals of substantially reducing the adverse public health impacts of power generation, as required by the CAA, while continuing to assure electric reliability is maintained. EPA also intends to continue to work with DOE, FERC, state PUCs, RTOs and power companies as this rule is implemented to identify and address any challenges to ensuring that both the requirements of the CAA and the need for a reliable electric system are met. In developing this proposed rule, EPA has performed specific analysis to assess the feasibility (e.g., ability of companies to install the required controls within the compliance time-frame) and potential impact of the proposed rule on reliability.

Pages 25,055 and 25,056 (emphasis added)

EPA has also considered the impact that potential retirements under this proposed rule will have on reliability. When considering the impact that one specific action has on power plant retirements, it is important to understand that the economics that drive retirements are based on multiple factors including: Expected electric demand, cost of alternative generation, and cost of continuing to generate using an existing unit. EPA's analysis shows that the lower cost of alternative generating sources (particularly the cost of natural gas), as well as reductions in demand, have a greater impact on the number of projected retirements than does the impact of the proposed rule.

EPA's assessment looked at the reserve margins in each of 32 subregions in the continental U.S. It shows that with the addition of very little new capacity, average reserve margins are significantly higher than required (NERC assumes a default reserve margin of 15 percent while the average capacity margin seen after implementation of the policy is nearly 25 percent). **Although such an analysis does not address the potential for more localized transmission constraints, the number of retirements projected suggests that the magnitude of any local retirements should be manageable with existing tools and processes.** Demand forecasts used were based on EIA projected demand growth. Reliability concerns caused by local transmission constraints can be addressed through a range of solutions including the development of new generation and/or demand side resources, and/or enhancements to the transmission system. On the supply side, there are a range of options including the development of more centralized power resources (either base-load or peaking), and/or the development of cogeneration, or distributed generation. Even with the large reserve margins, there are companies ready to implement supply side projects quickly. For instance, in the PJM Interconnection (an RTO) region, there are over 11,600 MW of capacity that have completed feasibility and impact studies and could be on-line by the third quarter of 2014. Demand side options include energy efficiency as well as demand response programs.

These types of resources can also be developed very quickly. In 2006, PJM Interconnection had less than 2,000 MWs of capacity in demand side resources. Within 4 years this capacity nearly quadrupled to almost 8,000 MW of capacity. Recent experience also shows that transmission upgrades to address reliability issues from plant closures can also occur in less than 3 years. In addition to helping address reliability concerns, reducing demand through mechanisms such as energy efficiency and demand side management practices has many other benefits. It can reduce the cost of compliance and has collateral air quality benefits by reducing emissions in periods where there are peak air quality concerns.

EPA also examined the impact on reliability of unit outages to install control equipment. Because these outages usually occur in the shoulder months (outside summer or winter peaking periods) when demand is lower (and, thus, reserve margins are higher), the analysis showed that even with conservative estimates regarding the length of the outages and conservative estimates about how many outages occurred within a 1-year time-frame, reserve margins were maintained. With the potential for a 1-year compliance extension, outages can be further staggered, providing additional flexibility, even if some units require longer outages.

Although EPA's analysis shows that there is sufficient time and grid capacity to allow for compliance with the rule within the 3-year compliance window (with the possibility of a 1-year extension), to achieve compliance in a timely fashion, EPA expects that sources will begin promptly, based upon this proposed rule, to evaluate, select, and plan to implement, source-specific compliance options. In doing so, we would expect sources to consider the following factors: if retirement is the selected compliance option, notifying any relevant RTO/ISO in advance in order to develop an appropriate shutdown plan that identifies any necessary replacement power transmission upgrades or other actions necessary to ensure consistent electric supply to the grid; if installation of control technologies is necessary, any source-specific space limitations, such that installation can be staggered in a timely fashion; and source-specific electric supply requirements, such that outages can be appropriately scheduled.

Starting assessments early and considering the full range of options is prudent because it will help ensure that the requirements of this proposed rule are met as economically as possible and that power companies are able to provide reliable electric power.

Page 25,056 (emphasis added)

As discussed above, given the large reserve margins that exist, even after consideration of requirements of the proposed rule, **EPA believes that any reliability issues are likely to be primarily local in nature and be due to the retirement of a unit in a load constrained area**

In summary, EPA believes that the large reserve margins, the range of control options, the range of flexibilities to address unit shutdowns, existing processes to assure that sufficient generation exists when and where it is needed, and the flexibilities within the CAA, provide sufficient assurance that the CAA section 112 requirements for the power sector can be met without adversely impacting electric reliability.

Page 25,057 (emphasis added)

As discussed elsewhere in this preamble, we invite comment on this proposed rule. EPA solicits comment on the ability of sources subject to this proposed rule to comply within the statutorily mandated 3-year compliance window and/or the 1-year discretionary extension, as well as comment on specific factors that could prevent a source from achieving, or could enable a source to achieve, compliance. **In addition, EPA requests comment on the impact of this proposed rule on electric reliability, and ways to ensure compliance while maintaining the reliability of the grid.**

References to Reliability in the Regulatory Impact Analysis for the Proposed Rule, http://www.epa.gov/ttn/atw/utility/ria_toxics_rule.pdf

Pages 8-18, 8-19 (emphasis added)

The policy case analyzed maintains resource adequacy in each region experiencing coal unit retirements by using excess reserve capacity within the region, reversing base case retirements of non-coal capacity, building new capacity, or by importing excess reserve capacity from other regions. **Although any closure of a large generation facility will need to be studied to determine potential local reliability concerns, EPA analysis suggests that projected retirements under the proposed Toxics Rule could have little to no overall impact on electric reliability.** Not only are projected retirements under the proposed Toxics Rule limited in scope, but the existing state of the power sector is also characterized by substantial excess capacity. The weighted average reserve margin at the national level is projected to be approximately 25% in the base case, while the North American Electric Reliability Corporation (NERC) recommends a margin of 15%. EPA projects that the proposed Toxics Rule would only reduce total operational capacity by less than one percent in 2015.

Moreover, projected coal retirements are distributed throughout the power grid with limited effect at the regional level, such that any potential impacts should not adversely affect reserve margins and should be manageable through the normal industry processes. For example, the coal-fired generating areas in western Pennsylvania, West Virginia, Ohio, and Indiana all have significant excess generation resources: these areas combined see a decrease of less than 2% in their reserve margins in the policy case and retain an overall reserve margin of over 20%. Furthermore, subregions may share each other's excess reserves to ensure adequate reserve margins within a larger reliability region. EPA's IPM modeling accommodates such transfers of reserves within the assumed limits of reliability of the inter-regional bulk power system. For these reasons, the projected closures of coal plants are not expected to raise broad reliability concerns."

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

NOV 25 2011

DEPUTY ADMINISTRATOR

Mr. Gerry W. Cauley
President and Chief Executive Officer
North American Electric Reliability Corporation
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Washington, D.C. 20005-3801

Dear Mr. Cauley:

I am writing to express our concerns about your upcoming report that, according to the North American Electric Reliability Corporation (NERC), addresses potential reliability impacts of several U.S. Environmental Protection Agency (EPA) rulemakings. You recently shared with us a nearly final version of that draft report and took the time to answer some of our questions. While we at the EPA are appreciative of the ongoing conversations and respect NERC's role, and we have yet to see the final report, I wanted to write to reiterate the concerns we raised with your staff on the draft report.

NERC issued a similar report in 2010 which the EPA and other outside groups – including the independent, non-partisan Congressional Research Service – noted did not accurately portray the EPA's regulations or the likely outcomes for the electric grid. Based on our recent conversations with you it appears that your 2011 report may contain many of the same faulty characterizations of our rules.

As you know, many of the rules in question are years or even decades overdue. They will also yield massive public health benefits – the recently finalized Cross State Air Pollution Rule alone, for example, will prevent 34,000 thousand premature deaths and 400,000 cases of aggravated asthma per year.

The EPA has conducted analyses of the potential reliability impacts of the Cross State rule and the Mercury and Air Toxics Standards, and will conduct similar analyses prior to finalizing any other rule that may impact the power sector. Our analyses indicate that these rules do not threaten capacity reserve margin targets either nationally or regionally. Other analyses like those by the Bipartisan Policy Center have similarly concluded that "scenarios in which electric system reliability is broadly affected are unlikely to occur." This confirms what we have experienced in the 40 years under the Clean Air Act – 40 years of instituting public health standards without once compromising power companies' ability to keep the lights on in communities across the United States.

While NERC speculated about two EPA rules (for mercury and air toxics and cooling water intake) for your 2010 report, those rules have now been proposed and are in the public sphere. It is of concern that your current analysis does not accurately reflect the contents of these proposed rules.

First, the draft report incorrectly assumes the mercury and air toxics rule will impose requirements significantly stricter than our actual proposal. It appears to assume that companies with uncontrolled coal units will uniformly adopt the most expensive controls possible to comply with the standards (FGD and fabric filters), rather than selecting the most cost-effective technology that works for their facility. Even so, the principal reliability issues the analysis purports to identify are not related to the EPA's air rules. Instead, most of the facility retirements are attributed to the 316(b) cooling water intake rule – a rule which has yet to be finalized. With regard to the 316(b) rule, your draft report largely repeats the flawed assumptions from your 2010 report by assuming the EPA's final 316(b) rule will be far more stringent and costly than the rule the EPA has actually proposed.

As the August report by the non-partisan Congressional Research Service noted, "The [2010] NERC analysis assumed that mandatory cooling tower retrofits would be required by 2018...", clarifying that in the EPA's actual 316(b) proposal we "declined to mandate closed-cycle cooling universally and instead favored a less costly, more flexible regulatory option." Your "stringent" case appears to continue to assume that the EPA's cooling water intake rule will lead to 100% of units installing closed cycle cooling despite the fact that the EPA rejected this option in its proposal. Even the so-called "moderate" case requires cooling towers on 75% of affected capacity – even though the EPA's rule specifically allows permitting authorities to consider cost, remaining useful life, and impacts on reliability in determining what technology to require. This "moderate" case assumes states would require cooling towers even if this would lead to plant retirements that cause reliability problems.

In addition, the draft report you shared with our staff appears to assume that all facilities must comply with the 316(b) rule's requirements by 2018. As described in our actual proposal, facilities have up to 8 years (to 2020) to comply with the first part of the standard (primarily by installing fish-friendly screens, not closed cycle cooling) and even longer for the second part of the standard that involves detailed consideration of cost and any potential effects on reliability.

Your draft report also assumes that no one takes any action to address potential reliability issues when, in reality, the industry, grid planners and regulatory authorities have a strong track record of successfully identifying and addressing shortfalls in electric generating capacity – through construction of new generation, upgrades to the transmission system, and demand-side measures. Your current analysis simply assumes that the federal and state governments would let facilities that are critical to grid reliability close and that no one would step in to pick up the shortfall -- an outcome that flies in the face of our 40 years of implementing the Clean Air Act and the Clean Water Act.

NERC's draft report describes an extreme outcome that arises from a scenario where the most stringent and costly rules imaginable took effect, and no one at the federal, state, or local level took any steps to ensure the continued reliability of the grid.

Fortunately, the EPA's analysis and several external analyses show that, where the EPA's actual rules are accurately characterized, there is no adverse impact on capacity reserves in any region of the country. If isolated, local reliability challenges were to emerge due to individual plant retirements, the Clean Air Act and Clean Water Act provide flexibility mechanisms to ensure that sources can be brought into compliance over time while maintaining reliability. We have reached out to NERC, RTOs, State regulators and other stakeholders and will continue to work with you and those entities to ensure the continued reliability of the electrical system.

I would reiterate that the EPA is appreciative of our ongoing dialogue, and I hope that we can continue to engage in substantive conversations in the future; however, given that your report is about to released – and given my understanding of the report's current mischaracterizations of our rules – I find it necessary to write to you to underscore our deep concerns with this product.

I would be happy to discuss this or other issues of mutual concern and look forward to continued conversations.

Sincerely,

Bob Perciasepe

Bob Perciasepe