Statement of Regina McCarthy
Assistant Administrator
Office of Air and Radiation
U.S. Environmental Protection Agency

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Thank you for giving me the opportunity to speak to you today about the EPA's Clean Air Act power plant rules: the Cross State Air Pollution Rule finalized this past July and the Mercury and Air Toxics Standards, or "MATS" Rule, to be finalized on December 16.

These rules will achieve major public health benefits for Americans that significantly outweigh the costs. They are affordable, technologically achievable, and can be implemented while maintaining a robust and reliable electric system.

The Cross State rule, which requires significant reductions in sulfur dioxide and nitrogen oxide emissions that cross state lines, will yield $120 to $280 billion in annual health and environmental benefits in 2014, including the value of avoiding 13,000 to 34,000 premature deaths. This far outweighs the estimated annual costs of the rule.

The Mercury and Air Toxics Standards will substantially reduce power plant emissions of mercury and other air toxics. Mercury can cause neurological damage in children who are exposed before birth and it 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 also will reduce fine particle pollution.

At the proposal stage, EPA's analysis projected that the emissions reductions achieved by the Mercury and Air Toxics Standards 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 technology to implement these rules is available, cost effective and currently in use on many power plants across the US.

There is tremendous public support for these rules. Since March, we have received hundreds of thousands of public comments on the Mercury and Air Toxics Standards urging us to reduce mercury and other toxic emissions from power plants.

Our analyses and past experience indicate that warnings from some of dire economic consequences of moving forward with these important rules are exaggerated at best.

While not their focus, the Cross State and the Mercury and Air Toxics Standards have the potential to improve productivity and provide jobs. We estimated that the proposed Mercury and Air Toxics Standards would result in 850,000 fewer work days missed to illness, and could support 31,000 job years of short-term construction work and net 9,000

long-term utility jobs. Money spent on pollution controls at power plants provides high quality American jobs manufacturing steel, cement, and other materials needed to build the pollution control equipment; creating and assembling control equipment; installing the equipment; and operating and maintaining the equipment. And many of these are jobs that cannot be shipped overseas. In addition, the U.S. is a leading exporter of pollution control equipment.

As we have moved to regulate the power sector, over and over we have heard claims that our rules will lead to adverse impacts on electric reliability. We don't take reliability issues lightly. In the 40-year history of the Clean Air Act, EPA rules have not caused the lights to go out, and we won't let it happen going forward.

We are paying careful attention to reliability issues. EPA's analysis projects that these clean air rules, combined, will result in only a modest level of retirements and will not have an adverse effect on generation resource adequacy in any region of the country.

Several outside analyses have reached conclusions that are consistent with EPA's. The Bipartisan Policy Center issued a report in July of this year concluding that "scenarios in which electric system reliability is broadly affected are unlikely to occur."[1]

MJ Bradley & Associates and the Analysis Group have released a series of reports over the past year analyzing the combined impacts of the Cross State Rule and the proposed MATS Rule, including a new update this month. Their analyses have concluded that "the electric industry can comply with EPA's air pollution rules without threatening electric reliability" and have highlighted "the many tools that are available for ensuring electric reliability" as companies do so.

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

As you know, PJM recently issued a report concluding that, even assuming retirements substantially in excess of those projected by EPA, the Cross-State Rule and the proposed MATS Rule combined did not threaten resource adequacy in the PJM region. That's significant, given that PJM is one of the largest and most heavily coal-dependent regions in the country. The PJM analysis emphasizes, of course, that there could be localized concerns – a point to which I will return in a minute. PJM also points out that, to the extent that these rules spur newer more efficient and more dependable generation, they may enhance reliability.[2]

Other studies do suggest that these rules will result in substantial power plant retirements that, in turn, will threaten reliability. In general these studies share a number of serious flaws. Most notably, as the Congressional Research Service emphasized in August, these studies often make assumptions about the requirements of the rules that are inconsistent with, and dramatically more expensive than, the EPA's actual proposals. In addition they often fail to differentiate between plant retirements attributable to the EPA rules, and retirements of older, smaller, and less efficient plants that are already scheduled to occur for economic reasons. Third, many analysts do not account for the whole host of tools, including new generation, demand response, energy efficiency, transmission upgrades and energy storage that can be – and are highly likely to be -- used to maintain reliability.

For example, I have seen a lot of analyses, including the one released this week by NERC, that assume that every uncontrolled coal unit will install the most expensive controls available to meet the Mercury and

[2] PJM Interconnection, August 2011, "Coal Capacity at Risk for Retirement in PJM: Potential Impacts of the Finalized EPA Cross State Air Pollution Rule and Proposed National Emissions Standards for Hazardous Air Pollutants" available at http://pjm.com/~/media/documents/reports/20110826-coal-capacity-at-risk-for-retirement.

Air Toxics Standards requirements. I think we all know that this isn't what will happen. In reality, there is a 40 year history in the Clean Air Act of firms finding the most affordable way to comply with air quality standards, often in very innovative ways.

These types of worst-case assumptions, when not clearly described as more stringent than EPA's rules, can generate more confusion than insight. For example, many press reports and floor speeches over the next few months may cite some very high retirement numbers from the NERC report and other similar studies. But those high numbers aren't even a result of the Cross State Rule or the Mercury and Air Toxics Standards. They are the result of a mischaracterization of EPA's cooling water rule under section 316(b) of the Clean Water Act, which accounts for the majority of the retirements NERC projects. NERC's "stringent" case captures an outcome that EPA specifically rejected in our proposal. Even NERC's so-called "moderate" case assumes that mandatory cooling tower retrofits would be required on 75% of affected capacity, whereas EPA's actual proposed rule provides substantial flexibility to adopt less stringent requirements where appropriate – including the ability to consider reliability impacts.

The second attribute of many of these reports that can easily lead to a misunderstanding is that they unrealistically assume a world in which no one does anything in response to power plant retirements and their impacts, if any, on reliability. No construction of new generation, no transmission upgrades, no implementation of demand-side resources. Is there anyone in this room that honestly believes that, in the United States, we can't or won't make any of those things happen in the next four years?

The upshot is that many of these studies seem to answer a theoretical question: What would happen in a world in which we impose the most stringent controls imaginable and no one takes action in response to the resulting plant retirements? There can be value to such a question as a tool to highlight, for planners and operators, the need to plan. But many of these studies do not make it clear that they are looking at an extreme case that does not reflect EPA's actual rules and, as a result, overstates potential impacts. In the real world, of course, utilities will choose the most cost-effective route to compliance with EPA's actual rules. And in the real world, utilities, grid operators, and Federal and State regulators will respond to retirements in a way that is consistent with their demonstrated track record of successfully identifying and addressing new resource needs.

That said, we do recognize that our rules will make certain demands on power plants. Achieving the public health and environmental benefits of these rules will require significant investments. Those investments, in turn, will move the power sector to a cleaner, more efficient future. We strongly believe that early planning and coordination among utilities and utility regulators can help to make this transition as smooth as possible. We also know, based on our analysis, that demand side resources can lower costs, reduce the need for capacity, and help to maintain reliability while supporting the need to reduce emissions from the power sector.

We are mindful that, even absent regional resource adequacy problems, local reliability challenges could emerge in connection with particular plant retirements or delays in the installation of pollution controls. If such challenges emerge, the Clean Air Act and the Clean Water Act provide flexible mechanisms to bring sources into compliance while maintaining electric reliability. EPA is actively engaged with

stakeholders on these issues and that engagement will no doubt benefit from the exchanges at this conference.

We have a 40 year history in this country of improving the environmental profile of the power industry while maintaining grid stability. We are committed to working with all stakeholders to ensure that we maintain that record.

Thank you very much for the opportunity to share EPA's views in this vital forum.