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HEARING BEFORE THE HOUSE SUBCOMMITTEE ON WATER RESOURCES & ENVIRONMENT

"COAL COMBUSTION WASTE STORAGE AND WATER QUALITY"

April 30, 2009

Good morning. My name is John McManus. I am the Vice President, Environmental Services for American Electric Power ("AEP"). I would like to thank the Subcommittee for the opportunity to present this statement on behalf of AEP, the Edison Electric Institute ("EEI") and the Utility Solid Waste Activities Group ("USWAG") on "Coal Combustion Waste Storage and Water Quality."[1]

Utility Commitment to the Sound Management of Coal Ash

The electric utility industry remains committed to ensuring the integrity and safe operation of landfills, dams and impoundments in which we manage coal combustion byproducts (CCBs), including coal ash. The accident that occurred at TVA is unacceptable and we need to do a better job at managing CCBs. We have taken steps to ensure the safe management of CCBs in dams and impoundments and we support steps to enhance current requirements and oversight.

In the wake of the spill, utility companies across the country, including AEP, have re-examined their dam safety and inspection activities to ensure that these programs are up-to-date and functioning properly. A number of State regulatory agencies have also conducted additional inspections of utility impoundments to assess their structural soundness. The U.S. Environmental Protection Agency ("EPA") has initiated a nation-

[1] EEI is an association of U.S. shareholder-owned electric companies, international affiliates, and industry associates worldwide. EEI's U.S. members serve roughly 90 percent of the ultimate customers in the shareholder-owned segment of the industry and nearly 70 percent of all electric utility ultimate customers in the nation, and generate nearly 70 percent of the electricity produced in the United States. USWAG is a consortium of EEI, the National Rural Electric Cooperative Association ("NRECA"), and over 100 electric utility operating companies located throughout the country. NRECA is the national association of rural electric cooperatives, many of which are small businesses. Together, USWAG members represent more than 85 percent of the total electric generating capacity of the United States.

wide effort to assess the safety of CCB impoundments. We welcome this additional level of scrutiny to provide assurance that our facilities are being operated in a safe manner.

It is our understanding that EPA intends to propose Federal regulations for CCB disposal by the end of this year. The electric utility industry has long worked in a constructive and cooperative manner with EPA as it has evaluated regulatory options for CCBs and we look forward to continuing to work with EPA and state regulatory agencies on this effort. We believe that the states have an important role in this program.

CCB Regulation

The issue of whether CCBs should be regulated as hazardous wastes has been thoroughly evaluated and resolved. On four different occasions, U.S. EPA has concluded that CCBs do not warrant regulation as hazardous waste: in the 1988 and 1999 Reports to Congress issued pursuant to the 1980 Bevill Amendment to the Resource Conservation and Recovery Act ("RCRA"), and in final regulatory determinations promulgated in August 1993 and May 2000. In its 2000 Regulatory Determination, EPA found that coal ash does *not* warrant hazardous waste regulation, concluding instead that RCRA Subtitle D [non-hazardous waste] regulations are "the most appropriate mechanism for ensuring that these wastes disposed of in landfills and surface impoundments are managed safely." 65 Fed. Reg. 32214 (May 22, 2000).

We agree with EPA and we support the development of federal, non-hazardous waste regulation under RCRA Subtitle D, implemented by the states. Such regulations would ensure that CCBs are managed in a manner that is protective of groundwater. The states have consistently gone on record as opposing federal regulation of CCBs as hazardous waste, explaining that it is unnecessary and in fact would be counter-productive, because it would effectively end the beneficial use of coal ash in many states. We agree with the states that any additional federal controls should focus on filling any gaps in existing state regulations.

An August, 2006 EPA/DOE report (Coal Combustion Waste Management at Landfills and Surface Impoundments, 1994-2004) confirms the improving trend in the state regulation of CCBs, finding that, over the last decade, the amount and quality of environmental controls for coal ash management units have increased and that there is a trend towards dry handling of coal ash. In short, state CCB controls have become more robust.

Utilities across the country implement measures to ensure the structural integrity of CCB surface impoundments, including ensuring that:

- surface impoundments are designed, constructed and maintained in accordance with prudent engineering practices;
- surface impoundments are regularly inspected for changes in appearance or structural weaknesses; and
- if a structural weakness is identified, steps are taken to remedy the condition.

AEP's Dam Safety Inspection and Monitoring Program serves as one example of the industry's CCB impoundment operations. AEP has operated coal ash impoundments for decades and currently owns and operates more than 40 earthen dam impoundments used to store fly ash, bottom ash and cooling water at its power plants. This total includes:

- Eleven large fly ash and bottom ash impoundments located in Ohio, West Virginia, Kentucky and Indiana;
- Six large water storage impoundments located in Texas, Oklahoma, Arkansas and Louisiana; and
- Several smaller ash management impoundments located throughout our service territory.

AEP's Safety Inspection and Monitoring Program is based on federal dam safety guidelines and applicable state dam safety regulations and includes the following key components:

- AEP's large dams are inspected annually by engineering staff under the direction of a professional engineer. The large dams are also inspected more frequently by plant staff.
- Many of AEP's smaller facilities are inspected routinely by plant staff and every two to three years by engineering staff.
- The large dams at several plants are equipped with instrumentation (for example, piezometers, surface survey monuments and slope indicators) to monitor the dam's structural conditions. Monitoring data for the instrumented dams are collected at least annually and a report outlining the condition and inspection results and recommendations is provided to the plant for implementation.

Design modifications and expansions to existing dams are performed by professional engineers and reviewed by an independent professional engineer. In addition, the designs are reviewed and approved by the appropriate state regulatory dam safety officials.

We realize that there are different state approaches to regulating dam or impoundment safety, and therefore the principle of having some level of Federal oversight or standards to provide consistency across the country has merit. We support, as part of a Federal CCB regulatory program under RCRA Subtitle D, dam safety, inspection and response planning.

Beneficial Use of CCBs

We also want to insure that the re-use and recycling of coal combustion materials continues to be encouraged. As part of ensuring the environmentally sound management of CCBs, our industry also remains committed to continuing and expanding the array of beneficial uses of CCBs, including, among others, as raw material in Portland cement, for mine reclamation, as replacement for cement in concrete and grout, as mineral filler in asphaltic concrete, as aggregate for highway subgrades and road base material, and as a component of flowable fill. The beneficial use of CCBs conserves natural resources and energy, reduces greenhouse gas ("GHG") emissions, and reduces the amount of CCBs that need to be disposed.

The U.S. EPA extolled the benefits of CCB beneficial use in its written testimony during the Senate Environment and Public Works Committee oversight hearings on the TVA coal ash release held earlier this year. The EPA noted that by recycling 13.7 million tons of fly ash in 2007, in place of Portland cement, the United States saved nearly 73 trillion BTUs of energy. This is equivalent to the annual energy consumption of more than 676,000 households. This also reduced greenhouse gas emissions of 12.4 million metric tons of CO_2, which is equivalent to the annual GHG emissions of 2.3 million cars. Given these environmental benefits, AEP and the utility industry strives to maximize the options for CCB beneficial use. However, until full beneficial use of CCBs is achieved, continued management of CCBs in an environmentally responsible manner will remain an essential commitment of electric power generators.

Regulating coal ash as a hazardous waste would have a devastating impact on the beneficial use of these materials. In its 2000 Regulatory Determination, EPA concluded that hazardous waste regulation would place a “significant stigma on these wastes, the most important effect being that it would adversely impact beneficial use;” EPA did not want to place “unnecessary barriers on the beneficial use of these wastes, because they conserve natural resources, reduce disposal costs and reduce the total amount of waste destined for disposal.” *Id*. at 32232. The States and coal ash marketers and users agree that beneficial use would essentially come to an end if EPA were to regulate coal ash as hazardous, resulting in among other things an increase of over 12 million tons of greenhouse gases annually.

Water Quality Issues

Our industry is committed to protecting the aquatic environments in the vicinity of our plants. All discharges from power plants to surface waters such as lakes, streams or rivers are regulated through the Clean Water Act's ("CWA") National Pollutant Discharge Elimination System ("NPDES") permitting program. Discharge permit limits are developed based on two separate groups of standards: effluent guidelines and water quality standards. Effluent guidelines are industry-specific limits based on available technologies. Water quality standards include federally established water quality criteria protecting human health and aquatic life. Those criteria address over 100 pollutants, including metals such as mercury, arsenic and selenium. For every permit, the regulator assesses whether the discharges may cause an exceedance of applicable water quality criteria. If the regulator finds that there is a "reasonable potential" for the discharge to exceed any water quality criterion, the regulator will set a limit for that criterion in the permit. Therefore, any power plant discharge that has any potential to violate water quality criteria for priority pollutants is subject to limits set by the permitting authority.

NPDES permits must be renewed every five years. At each five year interval, state regulators review new data on the facility, apply an established system of analysis to the data, and develop a new draft permit. The draft permit is then subject to public notice and comment and review by an EPA regional office. Thus any potential problems with specific constituents can be raised and addressed during the permit renewal cycle. This permitting system has resulted in greatly improved water quality in many areas of our country since its inception more than 30 years ago.

Additionally, EPA is conducting a detailed study of the wastewater discharges of our industry as part of its regular review of all effluent guidelines. This study has included wastewater sampling and information gathering visits to more than 40 facilities, and a questionnaire to nine utilities owning coal-fired facilities. For more than three years, our industry has actively assisted EPA with this study, providing information on wastewater characterization and technology performance, and recommending sampling techniques and analytical methods. As an example, AEP has hosted EPA staff on visits to four of our power plants and has completed the questionnaire. EPA has said it will issue a decision on whether to revise the steam electric effluent guidelines this year. Our industry will continue to engage EPA on all aspects of this study. The current process should continue in a transparent and scientifically valid manner.

Testimony received by this subcommittee has suggested that discharges of metals such as selenium and arsenic from coal ash impoundments are not protective of the environment. We do not believe this to be the case. The NPDES permitting program integrates the industry-specific technology-based effluent guidelines limits and the water

quality-based effluent limits into a well established, effective permitting system which is protective of human health, fish and wildlife.

Conclusion

In sum, the industry's goal is to manage coal ash safely and to use it in beneficial ways. We support the regulation of CCBs as non-hazardous wastes under a program that is designed to protect groundwater and surface water and that ensures the structural integrity and safety of coal combustion byproduct impoundments. This can be achieved under RCRA's non-hazardous waste Subtitle D program.

I would like to thank the Subcommittee for the opportunity to present the views of AEP, EEI and USWAG on this issue. I would be happy to address any questions the Subcommittee may have.