USWAG STATEMENT FOR TELECONFERENCE WITH PEER REVIEWERS OF DRAFT HUMAN AND ECOLOGICAL RISK ASSESSMENT OF COAL COMBUSTION WASTES

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My name is Jim Roewer and I am Executive Director of the Utility Solid Waste Activities Group, known as USWAG. I would like to first commend EPA for conducting this teleconference to afford stakeholders and interested members of the public an opportunity to provide input into the risk assessment process for coal combustion wastes or CCWs. From the beginning, EPA staff has conducted an open process that encourages public dialogue on the difficult technical issues presented by the draft risk assessment. Although at times we have been critical of the risk assessment work product, including the draft currently undergoing peer review, we have no criticism of the way in which EPA has welcomed public input. We are pleased to avail ourselves of the opportunity at this teleconference to present our views on the draft risk assessment.

When Congress passed the Bevill Amendment in 1980, it assigned to EPA the responsibility of undertaking a comprehensive study of CCWs by looking at 8 factors spelled out in the statute. Congress directed EPA to base its regulatory decision-making on consideration of all of the following 8 factors:

1. The source and volumes generated;

2. Present disposal and utilization practices;
3. Potential danger, if any, to human health and the environment from the disposal and reuse of these materials;
4. Documented cases in which danger to human health or the environment from surface runoff or leachate has been proved;
5. Alternatives to current disposal methods;
6. The cost of such alternatives;
7. The impact of those alternatives on the use of coal and other natural resources; and
8. Current and potential utilization of these materials.

The risk assessment is a tool for addressing *one* of the 8 study factors – specifically No. 3 – but it was never intended to be given controlling weight. In fact, by its very nature, the uncertainties associated with risk modeling seem to contradict nearly all the congressional study factors, which, by their nature, emphasize *present* disposal and utilization practices, *documented* cases in which environmental danger has been *proved*, the economics of alternatives to current disposal methods, the impact of alternatives on coal and alternative energy sources, and the impact on future utilization. Because of Congress' emphasis in the study scope on actual experience with CCWs, and given the comprehensive nature of the

study of CCW disposal that EPA conducted for more than a quarter century, USWAG has been skeptical about the value of modeling CCW disposal risk when so many aspects of the draft appear to contradict actual experience with CCW disposal.

As shown in our written comments on the NODA, including the technical report from ENSR Corporation appended to our comments, the draft risk assessment relies on assumptions about CCW disposal practices that do not reflect real world conditions. When the draft projects a relatively high level of risk from one or more constituents but the data from EPA's Bevill study fails to show comparable risk from those constituents at actual sites, we must ask ourselves why is there such a wide gap between the results of the model and actual experience at CCW disposal sites. The peer reviewers can make an important contribution to the process by correcting EPA's failure to validate modeling predictions by comparing those predictions with the extensive field data available to EPA. Ultimately, we have to ask why EPA would expend public funds attempting to project the future by using a tool whose very nature is fraught with uncertainty when EPA has reams of data showing actual experience with CCW disposal.

To be sure, some will argue that EPA has not documented the full scope of damage associated with CCW disposal. These critics of CCW management will assert that there has been insufficient

monitoring of these sites so that the true extent of environmental damage has not yet been discovered. With all due respect, there are ample data available from which to draw reliable conclusions.

Even though monitoring of groundwater is not yet universal, the trend in the past decade and a half has been decidedly in the direction of greater monitoring. If there really were a serious environmental problem associated with CCW disposal, that would have shown up at the large number of disposal facilities that have been monitoring groundwater for a number of years. In addition, many of the groups that claim there is serious environmental damage associated with CCW disposal have had every opportunity to present data to EPA to support their claim. These groups have not been bashful about pointing their accusatory fingers at various disposal sites. They have given EPA the names of 135 suspect sites together with what they believe is evidence of environmental damage associated with CCW disposal, but on closer examination, EPA has rejected nearly all of the sites as not meeting the standard of proof for a "documented case[] in which danger to human health or the environment from surface runoff or leachate has been proved." The flawed risk assessment should not be seen as a substitute for the lack of data to corroborate unproved allegations that CCW disposal pose a high level of environmental risk.

In our written comments on the draft risk assessment, USWAG and ENSR (as well as EPRI in their separate comments) identified a series of flaws in the assessment methodology that distorts the true level of risk associated with CCW disposal. If EPA decides to fix the draft risk assessment and issue it in final form, numerous changes are necessary. I will itemize just a few, and invite the peer reviewers to examine our written comments, together with ENSR's report, and also EPRI's comments and the Gradient report, for a more detailed explanation of the necessary changes.

- The draft risk assessment is based on industry data submitted in 1995, which no longer accurately reflects today's industry-wide management practices. The trend toward increased management controls at CCW disposal facilities was already recognized by EPA in its 2000 regulatory determination, and the joint report by DOE and EPA, published in 2006, confirmed that this trend has accelerated. A risk assessment that fails to take account of changes in management practices for the past 14 years is certainly inaccurate and ultimately unfair to the many utilities that have invested in improved management controls.

- The draft relies on the TCLP test to characterize the leaching potential from CCW disposal units. This test mimics the conditions of a municipal solid waste landfill. Utility CCW disposal units do not co-

manage the wastes typically found in a municipal landfill that result in an acidic environment mimicked by the TCLP. (Utility CCW disposal units are generally monofills and tend to be alkaline.)

- The risk assessment model has seriously mischaracterized the exposure pathway at CCW disposal units. For example, as ENSR correctly points out, the model assumes there is always a drinking water well in the vicinity and downgradient from the disposal unit and no surface water body that would interrupt from groundwater flow. The model ignores scenarios where water is supplied through a municipal or public water utility, wells are located upgradient or cross-gradient from the unit, and where a downgradient surface water body is located between the disposal unit and any drinking water well. The model also assumes that the disposal unit is near population centers. These assumptions are contradicted by EPA's earlier findings that CCW disposal units are frequently located significant distances from population centers and are typically near surface water bodies that dilute and divert groundwater plumes.

- The model makes some erroneous assumptions about exposure to CCW constituents from fish consumption. The model assumes that all persons living near disposal units are anglers and consume locally-caught fish and that all these fish are contaminated by a groundwater plume from a CCW disposal unit. It ignores the

portion of populations that are not anglers, that do not consume fish, that do not consume locally-caught fish, and that do not consume all of their fish from a water body contaminated by CCW disposal. These assumptions inevitably lead to a significant overstatement of risk.

- Finally, the draft risk assessment fails to demonstrate that it accounted for redox conditions of arsenic and other metals in assessing the transport of these metals in groundwater and the exposure risks associated with those metals. ENSR has addressed this flaw in the model in some detail in its report.

In conclusion, USWAG believes that the risk assessment, in its present form, is seriously flawed and should not be used to make any regulatory decisions about CCW disposal. Given the abundance of data available to EPA from actual disposal sites, EPA is in a position to complete its regulatory decision-making on CCW disposal without further delaying the process in the hope that one more round of risk modeling will uncover information that has eluded EPA after 28 years of field study.

I thank you for giving USWAG's views your thoughtful consideration. If you have any questions, I would be pleased to answer them.