

UTILITY SOLID WASTE ACTIVITIES GROUP (USWAG)<sup>1</sup>  
PERSPECTIVE ON MINEPLACEMENT OF CCPS  
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OSM Technical Interactive Forum  
Flue Gas Desulfurization at Coal Mines  
&  
Responses to the National Academy of Sciences Final Report “Managing Coal  
Combustion Residues in Mines”  
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The utility industry is committed to ensure that coal ash (or, as we prefer to call them, coal combustion products or CCPs) is managed in an environmentally sound manner. We believe that the mineplacement of CCPs is environmentally safe, and indeed, is environmentally beneficial. Indeed, the placement of CCPs in mines is a cost-effective and environmentally beneficial alternative to management in landfills and surface impoundments. CCPs have been used successfully to fill abandoned surface and underground mines for many years. Rather than manage large volumes of CCPs in surface impoundments and landfills, some utilities use the material to stabilize abandoned mines and mitigate the effects of acid mine drainage. While EPA regulations currently do not affect the placement of CCPs in mines, the Office of Surface Mining (“OSM”) of the Department of Interior has broad regulatory jurisdiction over mine reclamation under SMCRA and many states regulate the practice. From the electric utility perspective, it is clear that there is no need for a comprehensive federal regulatory program under RCRA to address CCP management, including disposal of CCPs in surface impoundments or landfills, or CCP mineplacement. The utility industry, through improved management practices, and the states, through their existing authorities under RCRA and SMCRA, are acting to ensure that CCP management is conducted in a manner that is protective of human health and the environment.

CCPs are one of the most rigorously studied and regulated materials. The National Academy of Sciences report, “Managing Coal Combustion Residues in Mines,” is the latest step in a comprehensive effort to better understand CCP management. This process began back in 1980 with the enactment of the Bevill Amendment to the Resource Conservation and Recovery Act (“RCRA”), which required EPA to “conduct a detailed and comprehensive study and submit a report” to Congress on the “adverse effects on human health and the environment, if any, of the disposal and utilization” of fly ash, bottom ash, slag, flue gas emission control wastes, and other byproducts from the combustion of coal and other fossil fuels. EPA was to make its regulatory determination as to whether or not Subtitle C regulation of these wastes was warranted on the basis of the Report to Congress. EPA published its initial Report to Congress on

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<sup>1</sup> USWAG consists of approximately 80 utilities, energy companies and trade associations, and is responsible for addressing solid and hazardous waste issues on behalf of the utility industry. USWAG’s mission is to support its members’ production and delivery of energy in an environmentally sound and economic manner.

March 8, 1988, which covered only coal combustion wastes from electric utility power plants and certain low volume wastes co-managed with them. The report recommended preliminarily that high volume coal combustion wastes not be regulated under Subtitle C, but indicated that EPA intended to "consider" whether low volume wastes exhibiting hazardous characteristics should be so regulated.

On August 9, 1993, EPA determined that regulation of the four large volume fossil-fuel combustion wastes (fly ash, bottom ash, boiler slag, and flue gas desulfurization waste) as hazardous is "unwarranted" under RCRA Subtitle C. (See 58 Fed. Reg. 42466) In the second phase of the Bevill process, EPA addressed issues of co-management, ash derived from co-burning of coal from nonhazardous solid waste, ash derived from clean coal combustion, and combustion residues from burning oil and natural gas. EPA submitted its second Report to Congress on March 31, 1999 (See 64 Fed. Reg. 22820, April 28, 1999). On April 25, 2000, EPA issued its Phase II Regulatory Determination. (See 65 Fed. Reg. 32214, May 22, 2000). EPA concluded in the Phase II Bevill regulatory determination that hazardous waste regulation of fossil fuel combustion wastes "is not warranted," reaffirming the 1993 determination for coal combustion wastes and extending it to oil and gas combustion wastes as well as low volume wastes co-managed with high volume coal combustion wastes.

Thus four times, over nearly a quarter of a century of study of CCP management and regulation, EPA came to the conclusion that these materials **do not** warrant hazardous waste regulation – first in 1988; second in 1993; third in 1999; and finally, in 2000. However, in the portion of its May 2000 regulatory determination regarding placement of CCPs in mines, EPA concluded that further study was needed to make a determination whether the existing regulatory system under the Surface Mining Control & Reclamation Act ("SMCRA") was adequate or whether it needed to be supplemented either by additional regulations under SMCRA or under the Resource Conservation and Recovery Act ("RCRA"). EPA, working with the Interstate Mining Compact Commission ("IMCC"), collected substantial data from mine placement sites around the country and to coordinate its work with other federal and state environmental and mining regulatory agencies, with the public, and with interested stakeholders: the IMCC coordinated a series of meetings among EPA, DOE, OSM, and state regulators on the issue in 2001 and 2002; in May 2003, EPA hosted a stakeholder meeting at which a number of citizens expressed their concerns about placement of CCPs in mines; in 2004, EPA held four "listening sessions" regarding CCP management (including mine placement) in Pennsylvania, Texas, and Indiana. The sessions produced a range of testimony from industry, state regulators, academics, environmental groups, and citizens. USWAG presented [testimony](#) at each of the listening sessions that delivered a positive message about the benefits of CCP placement in mines and rebutted concerns and issues raised to criticize the practice. The general impression in the wake of the listening sessions was that EPA did not hear any facts or allegations that differed substantially from those already in the Agency's record prior to the public sessions.

The overall result of this multi-year effort clearly indicated that the states have robust regulatory programs addressing CCP mineplacement, and, most significantly, that there were **no** demonstrated cases of environmental damage associated with the

mineplacement of CCPs. Nonetheless, in 2004, as a result of a request from Congress, the National Academy of Sciences (NAS) established within the National Research Council a Committee on Mineplacement of Coal Combustion Wastes to further examine the issue of the implications and need for regulation of the mineplacement of CCPs.

In spite of the fact that the Statement of Tasks of the Committee on Mineplacement seemed to presume that CCPs are the problem requiring a host of regulatory actions, the report's conclusions are not particularly offensive. The report endorses the use of CCPs in mine reclamation, and also makes very positive statements about the beneficial use of CCPs in other applications. Unfortunately, the NAS panel failed to fully appreciate the depth and breadth of existing OSM SMCRA and state regulatory controls – federal standards – that apply to CCP mineplacement, and the report calls for OSM to develop enforceable federal regulations that specifically address the placement of CCPs in mines. It should be noted that while existing OSM standards do not **explicitly** address CCP mineplacement, the standards are designed and implemented to ensure that mine reclamation activities, which do include CCP mineplacement, are conducted in an environmentally sound manner. Thus the suggested changes need not entail a major overhaul of the SMCRA regulations. Other recommendations in the report are mostly technical, many of which are consistent with current industry practice.

Overall, we are pleased that the NAS recognized that the mineplacement of CCPs can be an environmentally sound management practice. The utility industry welcomes the opportunity to work cooperatively with other stakeholders – Federal and state regulators, the mining industry and the public – on implementation of some of the regulatory improvements suggested in the report. We are particularly pleased that OSM is moving to implement develop standards that will maintain regulatory primacy with the states and that will ensure that the mineplacement of CCPs is conducted in a manner that continues to be protective of human health and the environment.