

November 4, 2009

Matt Hale
Director
Office of Resource Conservation and Recovery
USEPA Headquarters
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Mail Code: 5301P
Washington, DC 20460

Dear Matt,

Previously, we forwarded the results of the ASTSWMO's CCW Ad Hoc Workgroup survey of State waste and water program managers (Phase I), working in conjunction with ECOS and ASIWPCA. The Phase I survey sought information about State management practices for disposal of CCW. The survey revealed that, contrary to claims from environmental groups and the media, most States regulate the disposal of CCW. Thirty-six out of 42 States that have facilities producing CCW have permit programs for CCW landfills (86 percent).

Beginning August 27, 2009, the ASTSWMO CCW Ad Hoc Workgroup conducted a follow-up survey (Phase II) to its February 2009 Coal Combustion Waste Survey of State management practices. The purpose of the Phase II survey was to obtain information regarding the costs, workload, and expertise impacts on State programs of regulating CCW under the RCRA Subtitle C and RCRA Subtitle D regulatory options.


All 50 States and the District of Columbia responded to the Phase II survey. Obtaining 100% participation of States in a survey with such a short turnaround is remarkable and demonstrates how important this issue is to the States.

Enclosed is ASTSWMO's final report on the results of the Phase II State survey. All State respondents oppose EPA regulation of CCW under RCRA Subtitle C, with the exception of two States (one State that by statute does not regulate CCW as a solid waste and one that does not generate coal combustion waste). States have serious concerns about the impact of federal regulation on waste program resources, particularly if CCW is regulated as a hazardous waste under Subtitle C.



As noted, this is an issue of great concern to the States. We appreciate your continued interest in the States' position on this issue.

Sincerely

A handwritten signature in black ink, appearing to read "Stephen A. Cobb". The signature is fluid and cursive, with the first name "Stephen" and last name "Cobb" clearly distinguishable.

Stephen A. Cobb (AL), Chair
Hazardous Waste Subcommittee

Cc: Robert Dellinger
James Berlow



FEDERAL REGULATION OF DISPOSAL OF COAL COMBUSTION WASTE FROM COAL FIRED POWER PLANTS

COST ISSUES AFFECTING STATE ENVIRONMENTAL PROGRAMS

BACKGROUND

Federal Regulation of Disposal of Coal Ash

Coal combustion waste (CCW) was initially temporarily excluded from federal regulation as a hazardous waste under the 1980 Solid Waste Disposal Act Amendments to RCRA. In 1999, the U.S. Environmental Protection Agency (EPA) issued a Report to Congress indicating the preliminary decision that coal combustion waste disposal should remain exempt from Subtitle C (hazardous waste regulation). In 2000, after considering designating some CCW as hazardous waste under Subtitle C, EPA published a final regulatory determination that the regulation under Subtitle C was not warranted but that national regulations under Subtitle D (non-hazardous waste) would be appropriate for coal combustion wastes disposed in landfills and surface impoundments. However, EPA indicated in the regulatory determination that in developing/reviewing future regulations, it would look at the extent to which CCW caused actual or potential damage to human health and/or the environment, the environmental effects of filling mines with CCW, the adequacy of existing regulations, and the effects of mercury exposure from these activities. EPA also indicated that it would assess new information on risks associated with managing fossil fuel combustion wastes as it became available and monitor trends in protective management to see if regulation under Subtitle D would close the gaps it identified; if not, the Agency indicated it may re-examine its decision not to regulate the wastes under Subtitle C. In August 2007, EPA issued a Notice of Data Availability (NODA) on the Disposal of Coal Combustion Wastes in Landfills and Surface Impoundments. In February 2008, ASTSWMO's Fossil Fuel Combustion Waste Work Group submitted comments on the NODA based in part on the results of a survey in which 33 States responded. Generally, the States have argued that State regulations are sufficient for managing CCW. ECOS took this position in a resolution passed in 2008. However, at the end of 2008, EPA still had not made a determination about federal regulation of CCW. In deciding on an appropriate regulatory course of action, a central question which must be addressed relates to the basic regulatory underpinning of Subtitle D versus Subtitle C regulation – that being, “Does

CCW routinely meet the established criteria for regulation as a hazardous waste?" The vast experience of State programs is that CCW does not routinely meet the criteria.

The Tennessee Valley Authority (TVA) spill in December 2008 brought renewed attention to the question about the need for federal regulation of CCW from coal fired power plants. In response to EPA's fast-track regulatory process for CCW, the ASTSWMO Board of Directors formed a CCW Ad Hoc Workgroup in January 2009 to review and respond to EPA's proposed regulatory schemes.

In February 2009, ASTSWMO's CCW Ad Hoc Workgroup surveyed State waste and water program managers, working in conjunction with ECOS and ASIWPCA. The Phase I survey sought information about State management practices for disposal of CCW. The survey revealed that, contrary to claims from environmental groups and the media, most States regulate the disposal of CCW. Thirty-six out of 42 States that have facilities producing CCW have permit programs for CCW landfills (86 percent).

EPA has indicated that it is considering 3 possible regulatory scenarios – regulation as a non-hazardous waste under Subtitle D; regulation as a hazardous waste under Subtitle C; or a hybrid Subtitle C/D approach. According to EPA, the design and performance standards for the proposed regulations will likely be the same no matter what regulatory scheme is chosen. Many States voluntarily impose minimum performance standards for both landfills and surface impoundments under Subtitle D, demonstrating that minimum federal Subtitle D requirements will be sufficient to ensure that States properly regulate CCW.

On August 27, 2009, the ASTSWMO CCW Ad Hoc Workgroup conducted a follow-up survey (Phase II) to its February 2009 Coal Combustion Waste Survey of State management practices. The purpose of the Phase II survey is to obtain information regarding the costs, workload, and expertise impacts on State programs of regulating CCW under the RCRA Subtitle C and RCRA Subtitle D regulatory options. Both Phase I and Phase II surveys sought information from States about the beneficial uses of coal ash. An example of a beneficial use that is important to States is the use of CCW in State highway projects. This use is not only cost-effective for State Departments of Transportation but also diverts these wastes from landfills. The American Coal Ash Association reports that 43 percent of CCW is currently used in a beneficial way rather than disposed in a landfill. If EPA decides to regulate CCW as a hazardous waste, most experts agree it will have a detrimental effect on the beneficial use of CCW. This is only one of the negative effects on States of the potential federal regulation of CCW as a hazardous waste. ASTSWMO's State surveys reveal a number of other likely adverse impacts.

All 50 States and the District of Columbia responded to the Phase II survey. Obtaining 100% participation of States in a survey with such a short turnaround is remarkable and demonstrates how important this issue is to the States.

ASTSWMO PHASE I AND PHASE II SURVEY RESULTS

STATE OPPOSITION TO SUBTITLE C REGULATION

All State respondents oppose EPA regulation of CCW under RCRA Subtitle C, with the exception of two States (one State that by statute does not regulate CCW as a solid waste and one that

State experience demonstrates CCW is not a hazardous waste under federal regulations

“I have been regulating coal ash facilities for 26 years for the State of West Virginia. I have never found a TCLP [Toxicity Characteristics Leaching Procedure] or other chemical characterization that would indicate that coal ash could be labeled as a hazardous waste. Most of the time the metal concentrations, which would be the main characteristic that could be considered hazardous, are at or below MCL for drinking water.”

“[Regulating CCW] as a hazardous waste under RCRA Subtitle C is not supported by the historic data that has been collected from generators of [CCW in this State] which shows that CCW does not exceed RCRA Subtitle C hazardous waste characteristics.”

“Municipal solid waste ash contains higher levels of contaminants [than CCW]”

does not generate coal combustion waste). A major objection to listing CCW as a hazardous waste is that the vast State experience with testing CCW using the standard EPA test for determining if a waste is hazardous under the Resource Conservation and Recovery Act (RCRA) (the Toxicity Characteristic Leaching Procedure (TCLP)) shows that it is generally not characteristically hazardous. As demonstrated by the State

survey results this is a critical point because regulating CCW as a hazardous waste is burdensome on federally underfunded State waste programs and it also diverts precious resources from protecting threats to health and the environment posed by actual hazardous wastes. As one State put it, “this would detract from regulation of real hazardous waste.” EPA acknowledges that technically, CCW can be safely regulated as a non-hazardous waste under Subtitle D with the appropriate management standards. This Administration’s stated policy that regulatory decisions will be based on scientific evidence purports that CCW should not be regulated a hazardous waste under RCRA Subtitle C.

“The Department’s position is that classifying coal combustion residues under RCRA Subtitle C would create unnecessary barriers to the current management options without producing any greater degree of environmental or public health protection.”

IMPACT ON EXISTING HAZARDOUS WASTE REGULATION

If CCW meets the established scientific threshold criteria for regulation as a hazardous waste, then the question of Subtitle D versus Subtitle C is moot – the material should be regulated under Subtitle C. However, this determination has not been made, and in fact the opposite determination was made by EPA in its 2000 regulatory determination.

A major concern with adding lower risk, high volume wastes which do not meet the threshold criteria to the Subtitle C inventory is that those higher threat wastes which do meet the criteria and legitimately warrant Subtitle C controls will become lost in the shuffle due to the staggering difference in volume (2 million tons versus 134 million tons per year) and will divert attention and vigilance from the higher threat waste streams.

STATE WASTE PROGRAM CAPACITY

The fiscal impact on States of EPA's proposed regulations cannot be ignored, particularly in light of the budget crises so many States are experiencing. Adding the unnecessary burden of regulating a non-hazardous waste (i.e., one that does not meet RCRA hazardous waste testing standards) under Subtitle C, which is already severely underfunded, when so many States are imposing staff furloughs, hiring freezes and layoffs is unthinkable. Regulating CCW as a hazardous waste under Subtitle C will impose a significantly greater resource burden on State waste programs than regulating it as a non-hazardous waste under Subtitle D, which many States are already doing.

When asked how many facilities that could be affected by the new regulations have a Subtitle C disposal permit, all 43 States that responded to this question said "none." The capacity to regulate those facilities under Subtitle C does not exist in most States. At least 38 States will need additional Full Time Equivalents (FTEs) staff if EPA regulates CCW as a hazardous waste under Subtitle C. The increased workload will require additional technical expertise for the various Subtitle C program elements: Permitting, Inspections (including storage and record-keeping requirements), Financial Assurance, Facility-wide Corrective Action, Closure (Interim Status), Post-Closure Permits, Generator/Transporter Requirements, and Siting Controls. Several States could not even guess what impact regulating CCW under Subtitle C would have on their programs, but 29 States estimated that at least 140 FTEs would have to be hired at a cost of \$12M, or an estimated \$414K per State.

By contrast, only 18 States will need additional FTEs if EPA regulates CCW under Subtitle D. In other words, twice as many States will be impacted financially under Subtitle C regulation – a full three quarters of the States in this country. That vast majority of States indicated that no new FTEs will be needed if CCW is regulated under Subtitle D. The cost estimate is significantly less as well. The 18 States that could estimate how many additional FTEs would be needed if EPA regulates CCW under Subtitle D estimated that 40 FTEs would be needed at a cost of \$3.8M/year or an estimated \$211K per State.

There is no doubt that adding CCW to the wastes that are regulated as hazardous wastes will be devastating to State Subtitle C programs that are already underfunded. ASTSWMO's Hazardous Waste Subcommittee conducted a pilot program to determine the cost to States for implementing a complete and adequate RCRA Subtitle C Program (hereafter referred to as "RCRA C" or "RCRA") in 2006. The report entitled ***State RCRA Subtitle C Core Hazardous Waste Management Program Implementation Costs - Final Report (January 2007)*** revealed that the cost to States of implementing a complete and adequate RCRA Program (converted to 2008 dollars) is, at a minimum, \$275M in State and federal funding. The State share should be \$69M (25 percent) with the remaining \$206M in State Hazardous Waste Financial Assistance grants. However, the FY 2008 federal appropriation was slightly less than half of what States needed. Congress appropriated \$101M rather than \$206M. States are making up the difference for these federally mandated programs from already strained State budgets. These programs are already stretched to the breaking point. Expectations should not be high for a successful

incorporation of CCW into State Subtitle C programs without the guarantee of commensurate increases in State grant funding.

The difference in cost to the States between Subtitle C and Subtitle D is a significant factor in the current climate of substantial State budget revenue shortfalls. Either way, nearly all States (94%) will not be able to add FTEs to accommodate the additional workload without financial support from EPA.

TRAINING COSTS

A significant majority of States (79%) indicated staff training will be needed if CCW is regulated under RCRA Subtitle C. That is another cost that is not accounted for in the survey results. Not only will training be needed, it will also be costly to develop. There have been few if any new Subtitle C facilities permitted for 15-20 years, and most Interim Status facility closures were performed and Initial Operating Permits issued in the 1980's. Expertise and training is a significant issue because it has been that long since some States have gone through the process needed for permitting a new facility, issuing an initial permit to an Interim Status facility, or overseeing closure/post-closure activities and issuing initial Post-Closure permits for Interim Status facilities.

Fewer States (31% of responding States) will need staff training if CCW is regulated under RCRA Subtitle D.

BENEFICIAL USE

A compelling reason not to impose Subtitle C regulations is that the beneficial use of CCW has been very successful. As noted above, the vast State experience with testing CCW shows that it is generally not characteristically hazardous. Coal combustion wastes rarely if ever fail the criteria by which materials are determined to be hazardous waste. Regulation under RCRA Subtitle C has the potential to put an end to many beneficial uses for CCW. In most States, a primary requirement for a beneficial use determination is that the waste *not* be hazardous. Labeling CCW a hazardous waste will have a detrimental on its beneficial use.

This concern is also supported by the on-going controversy and legal challenges over the recent changes to the Definition of Solid Waste (DSW), which are primarily related to concerns over the appropriateness of relaxing regulatory controls on defined hazardous wastes for the purpose of encouraging reuse and recycling.

State experts agree – designating CCW as a hazardous waste will end beneficial use

“Regulation under Subtitle C would likely discourage beneficial uses of coal ash in concrete and Portland cement type applications.”

“Regulation of coal ash under RCRA Subtitle C would impede recycling and discourage its beneficial use and instead cause the disposal of a valuable resource in landfills and/or surface impoundments.”

“Coal ash has been beneficially reused in our state. Regulation under Subtitle C would likely stop this.”

DISPOSAL CAPACITY

The American Coal Ash Association reports that 43 percent of CCW is currently used in beneficial way rather than disposed in a landfill. Currently, 56 percent, or 75 million tons, is not beneficially used. States are concerned that designating CCW as a hazardous waste under Subtitle C will prevent beneficial use of CCW (as was the case with "Iron Rich" noted above) which will result in 134 million tons of CCW being shipped to hazardous waste landfills annually. According to EPA's National Biennial RCRA Hazardous Waste Report, in 2007 (the most recent data published) 1.6 million tons of hazardous waste was received by off-site hazardous waste landfills and surface impoundments

(<http://www.epa.gov/epawaste/inforesources/data/br07/national07.pdf>, Exhibit 3.9). Using a conservative estimate that 2 million tons of hazardous waste is disposed at off-site facilities annually, disposing of CCW as a hazardous waste will result in as much as sixty-seven times more waste being disposed in landfills. Even if beneficial use continues at its current rate, an additional 75 million tons per year (or thirty-eight times) more waste will have to be disposed in hazardous waste landfills annually.

Even more alarming is the fact that disposing of CCW in hazardous waste landfills will consume the Commercial Subtitle C Management Capacity projected for the year 2013 in a matter of months. EPA's expected maximum capacity for Subtitle C landfill capacity for 2013 is 34 million tons (http://www.epa.gov/osw/hazard/tsd/capacity/appb_1f.pdf). Assuming all CCW will be disposed in commercial Subtitle C landfills, the 2013 capacity will be exhausted within 3 months. Even if beneficial use continues at its current rate, the 2013 capacity will be exhausted in less than 6 months. In the unlikely event that beneficial use continues at its current rate *and* half of the coal fired utilities seek Subtitle C permits for the disposal facilities that they manage, the 2013 capacity will be consumed in less than one year. Consuming the commercial hazardous waste landfill capacity not only means that CCW will begin to pile up unmanaged at utilities, the current 2 million tons of hazardous waste generated by industry and hazardous waste site remedial activities will also begin to accumulate on-site. This will bring a halt to Superfund cleanups that require disposal of hazardous wastes as well as having a devastating impact on vital industries and facilities generating nearly half of the country's electrical power. It can take years to permit a new hazardous waste landfill.

States already know that there is not sufficient hazardous waste landfill capacity if CCW is designated a hazardous waste, as reflected in the Phase II survey.

- **91%** of States responding to the question ***do not have sufficient existing permitted Subtitle C disposal capacity*** for all CCW in-State.

Siting hazardous waste landfills is onerous - it has been 15-20 years since new hazardous waste landfills have been permitted

“The Massachusetts statute governing hazardous waste has onerous siting standards that would make it very difficult to site any facility to dispose of coal ash.”
 “Kansas state law prohibits the landfilling of hazardous waste so our laws would either need to be changed or all waste would need to be exported which is totally impractical.”

- **86%** of States responding to the question ***will need new off-site capacity*** to be sited if CCW is regulated as a hazardous waste.

Conversely, a majority of States have sufficient permitted non-hazardous waste disposal capacity for CCW. More

than half of that permitted capacity is located on-site at the generator facility which significantly reduces the amount of coal ash that must be transported for disposal.

- **Only 31%** of States responding to the question ***do not have sufficient existing permitted non-hazardous waste disposal capacity*** for all CCW in-State.
- **Only 35%** of States responding to the question ***will need new off-site capacity*** to be sited if CCW is regulated as non-hazardous waste.

Transportation issues associated with CCW designated as hazardous waste is another cause for concern. According to EPA’s most recent data, 7 million tons of hazardous waste was shipped in one year by 16,258 shippers (<http://www.epa.gov/epawaste/inforesources/data/br07/national07.pdf>, Exhibit 3.1). Each State has rigorous standards for licensing hazardous waste transporters. Most CCW is currently managed on-site at the generation facility. If the material becomes regulated as a hazardous waste, it is likely that much of this material will then be managed off-site, which will increase hazardous waste transportation by up to 20 times more waste than the current annual rate. The impact on transportation infrastructure and communities through which this new “hazardous waste” will be transported will be overwhelming. Only a handful of States have commercial Subtitle C landfills, which means that most CCW will have to be shipped out of State.

Only a handful of States have commercial Subtitle C facilities
 “We do not have any Subtitle C capacity. All waste would need to be shipped out of state.”

“There is only one commercial Subtitle C landfill in the state and it only receives hazardous waste treated by the owner of the site.”

“Michigan only has one commercial subtitle C permitted facility, which is reaching capacity.”

REGULATORY BURDEN

Drafting, proposing and finalizing regulations is a labor intensive and costly process. Currently, 36 out of 42 States have CCW solid waste permit programs for CCW landfills (86 percent). Only 3 States responded “no” and 3 States did not respond. Most States regulate CCW under general solid waste regulations (43 percent) and general industrial waste regulations (43 percent). Several States use regulations specifically designed for CCW (29 percent). Many States voluntarily impose minimum performance standards (such as those being considered by EPA for regulation of CCW), demonstrating that minimum federal Subtitle D requirements will be sufficient to ensure that State regulation of CCW is protective of human health and the environment.

Percentage of States with CCW landfills with specific regulatory requirements	
Regulatory Requirement	Landfills (%)
Bottom Liner	64%
GW Monitoring	81%
Leachate Collection	52%
Final Cover System	79%
Post Closure Care	79%
Siting Controls	83%
Corrective Action	86%
Structural Stability	69%
Financial Assurance	69%

If EPA designates CCW as a hazardous waste, all forty-eight RCRA authorized States will have to develop new Subtitle C regulations, despite the fact that regulation under Subtitle D will provide sufficient protection of health and the environment. This is a very costly and unnecessary burden that will divert resources from more productive activities.

FEDERAL VERSUS STATE AUTHORITY

EPA acknowledges that CCW can be safely regulated under Subtitle D. EPA suggests there are 2 primary reasons that EPA may propose Subtitle C regulation: 1) Subtitle D does not allow Federal enforcement except under citizen suits; and 2) EPA cannot require States to permit landfills under Subtitle D.

Enforcement

EPA suggests that Subtitle C is necessary so that EPA will have direct enforcement authority. States are held accountable by their citizens through State statutes and obligations to regularly inspect landfills and investigate complaints, and to utilize State enforcement authority as warranted. Subtitle D requires State programs to have the necessary enforcement authority as part of the federal approval process. This approach has been successful for over a decade as evidenced by the relative absence of federal citizen suits or demonstrated failure of State Subtitle D programs. The States are not aware of EPA expressing concerns regarding this State based enforcement approach in the municipal solid waste landfill program. A similar Subtitle D approach can successfully ensure compliance with minimum federal standards for coal combustion waste disposal facilities.

Permitting Requirement

While EPA cannot require that States permit Subtitle D facilities, most States do so without a federal mandate. ASTSWMO's Phase I survey revealed that thirty-six out of 42 States in which CCW is generated have permit programs for CCW landfills (86 percent). Only 3 States responded "no" and 3 States did not respond. Imposing the more stringent requirements of Subtitle C regulation on States to ensure that they permit facilities is not justified when most States already do so.

LEGISLATIVE ISSUES

EPA's proposed regulation of CCW will have a significant impact on both State Executive and Legislative branches. Whether EPA proposes regulation as hazardous (Subtitle C) or non-hazardous (Subtitle D), funding State environmental agency programs will become even more difficult. The budget impact will be more substantial if EPA proposes regulating CCW as a hazardous waste not only because the cost will be greater for Subtitle C regulation, but also as noted above, federal funding for State hazardous waste programs is already only half of what States need from the federal government to fund adequate Subtitle C core programs. Mandating another significant federal standard for these programs without commensurate guarantees of increased and sustained federal funding support will be devastating to State environmental program budgets.

In the ASTSWMO survey, States also commented on other legislative impacts of EPA's proposed regulation of CCW. For example:

Florida

"If USEPA decides to call coal ash a hazardous waste under Subtitle C, then current Florida law (Section 403.7222, Florida Statutes) would prohibit the disposal of this coal ash in landfills unless it was first treated to be non-hazardous. This could add tremendous costs to the power industry for managing this material. They would either have to treat their ash before disposal or ship it out of State for disposal. It is also likely that if existing disposal areas were disturbed after USEPA determined coal ash was a hazardous waste, then these old disposal sites could become hazardous waste disposal units too."

Kansas

"Kansas state law prohibits the landfilling of hazardous waste so our laws would either need to be changed or all waste would need to be exported which is totally impractical."

Michigan

"RCRA Subtitle C wastes in Michigan are currently regulated under Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act (NREPA). The regulation of coal ash under full RCRA Subtitle C would end the current beneficial uses of coal ash. Existing surface impoundments and landfills would be subject to more stringent design standards and would require either 1) retrofitting of existing landfills (if even possible) or 2) closure of those disposal facilities. Neither of these options could be implemented immediately."

CONCLUSION

Most States believe that federal regulation of CCW is not necessary, but do recognize that, particularly since the TVA incident, it is inevitable that EPA will promulgate some form of federal regulation of coal combustion waste. Considering the anticipated State fiscal impacts, the existing status of State CCW regulatory efforts, and the disposal capacity issues, Subtitle D regulation is the more appropriate course.