

PRACTICAL IMPACTS ON COAL-FIRED POWER PLANT OPERATIONS FROM REGULATING COAL COMBUSTION BYPRODUCTS AS HAZARDOUS WASTE

While any hazardous waste rule for coal combustion byproducts ("CCBs") will focus on the standards for CCB landfills and impoundments, there will be significant collateral regulatory, practical, and economic consequences of regulating CCBs as hazardous waste that extend beyond CCB disposal units to upstream and downstream operations. It is important that any hazardous waste proposal for CCBs fully consider these collateral issues.

1. RCRA Facility-Wide Corrective Action at Power Plants: A compliance issue that must be factored into any assessment of regulating CCBs as hazardous waste is that RCRA facility-wide corrective action would be required at any power plant required to obtain a RCRA permit for the on-site storage or disposal of CCBs. A condition of obtaining a Subtitle C permit is undertaking corrective action for *any* solid waste management unit (referred to in RCRA parlance as an "SWMU") at the facility that has *ever* been used to manage any solid waste, including non-hazardous waste. This obligation extends far beyond any permitted CCB storage or disposal units to *any* area at the facility where any type of non-hazardous solid waste (not just CCBs) is or has ever been managed, including closed landfills that have been inactive for many years. The costs of even undertaking the investigatory steps of RCRA facility-wide corrective action at large facilities – *i.e.*, determining whether remediation is even necessary – can easily reach into the tens of millions of dollars per facility. Industry wide, these corrective action assessment costs could easily reach billions of dollars.

Any true assessment of subjecting CCBs to Subtitle C regulation must include the potentially huge costs of undertaking facility-wide corrective action costs that would be incurred by power plants required to obtain RCRA permits for the on-site storage or disposal of CCBs. We are unaware of whether EPA has included these significant compliance costs in its Subtitle C cost/benefit analysis.

2. Practical Compliance Concerns: Regulating CCBs as a hazardous waste will cause serious practical and compliance concerns for coal-fired power plant operations. For example, due to the volume and nature of CCBs, certain *de minimis* volumes of CCBs are inevitably released during normal power generation and subsequent CCB handling operations (*e.g.*, fugitive and *de minimis* emissions from ash conveyor equipment or loading equipment and during the transport/handling of CCBs for beneficial use). If CCBs are regulated as a hazardous waste, these *de minimis* releases would constitute improper hazardous waste disposal, subjecting facilities to the specter of a perpetual state of RCRA non-compliance.

The prospect of any *de minimis* release or spill of CCBs during handling operations prior to their placement into a disposal unit constituting improper hazardous waste disposal is a significant compliance concern. As a practical matter, such a result could make full compliance with any Subtitle C regulatory program for CCBs virtually impossible.

Any true assessment of subjecting CCBs to Subtitle C regulation must include the significant compliance concerns associated with *de minimis* releases/spills of CCBs if regulated as hazardous waste. It is unclear whether EPA has evaluated this practical and serious

compliance issue. Nor are we aware of any EPA study finding that such potential *de minimis* releases and/or spills of CCBs pose risks to human health or the environment warranting hazardous waste regulation.

3. Retrofitting of Upstream Collection/Management Units: The handling of CCBs prior to their placement in a disposal unit at a power plant involves a series of upstream management/storage units, such as baghouses, precipitators, hoppers, containers, and related conveyance devices. If CCBs destined for disposal are regulated under Subtitle C, these upstream CCB management units would be regulated as “hazardous waste” tanks, containers or “miscellaneous units” and would have to be retrofitted to meet applicable hazardous waste design standards, including secondary containment requirements for tank systems. Owners/operators have advised that it may not be practicable to retrofit this existing infrastructure.

Any true assessment of subjecting CCBs to Subtitle C regulation must include the significant capital costs that utilities would have to incur to retrofit upstream CCB handling devices to meet applicable Subtitle C design standards. We are not aware of any EPA findings that the management of CCBs in these upstream management units poses a risk to human health or the environment warranting regulation under RCRA Subtitle C. Assuming such information is available, it is important that EPA account for the costs of retrofitting these upstream management units in its regulatory impact analysis.

4. Disposal Capacity Shortfalls and Off-Site Disposal Concerns: A combination of factors associated with the Subtitle C regulation of CCBs will result in a shortfall of on-site CCB disposal capacity, requiring more CCBs to be shipped off-site for disposal in commercial Subtitle C facilities. If a Subtitle C rule mandates the phase-out of CCB surface impoundments, a significant portion of existing CCB disposal capacity will be eliminated. Further, a percentage of dry CCB landfills may not be able to obtain Subtitle C permits or may choose not to do so due to the multi-year permitting process for what would now be a hazardous waste disposal site. Additionally, some states prohibit the siting of hazardous waste landfills, which would foreclose any opportunity for the continued on-site disposal of CCBs. Further compounding this problem is that greater volumes of CCBs will need to be disposed of because certain CCB beneficial uses currently employed in the market will be prohibited. Therefore, utilities will be disposing of greater volumes of CCBs with less on-site disposal capacity.

The Environmental Council of the States (“ECOS”) wrote EPA last fall cautioning that the current Subtitle C commercial disposal capacity will not be able to accommodate the influx of CCBs into the system if CCBs are regulated under Subtitle C. ECOS pointed out that, if only a fraction of CCBs currently being disposed of in on-site utility landfills are diverted into the Subtitle C commercial disposal market, the commercial market will be quickly overwhelmed. For example, ECOS states that “[i]n 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 [for commercial Subtitle C facilities] will be consumed in less than one year.” ECOS letter to Mr. Mathy Stanislaus, EPA, October 15, 2009 at 5. ECOS also cautions that “[c]onsuming hazardous waste landfill capacity not only means that CCW will begin to pile up unmanaged at utilities, but that the current 2 million tons of hazardous waste generated by industry and hazardous waste remedial activities will also

begin to accumulate on-site," bringing a halt to Superfund cleanups that require off-site disposal capacity. *Id.* at 5-6. ECOS also states that it "can take years to permit a new hazardous waste landfill." *Id.* The Association of State and Territorial Solid Waste Management Officials ("ASTSWMO") echoed this concern in a letter to EPA last fall. ASTSWMO letter to Matt Hale, EPA, November 4, 2009. Among other things, ASTSWMO raised the concern that the state resources required to manage up to an additional 134 million tons of CCBs will divert resources from the proper management of existing hazardous wastes (which are likely far more hazardous).

The combination of shortfalls in off-site CCB disposal capacity and the inability to manage CCBs on site will, as a practical matter, leave facilities with the unacceptable option of either storing CCBs on site in non-compliance with RCRA's permit requirements (and being subject to continuing daily penalties) or ceasing operations altogether to avoid producing CCBs.

Any true assessment of subjecting CCBs to Subtitle C regulation must include the realistic prospect of significant shortfalls in disposal capacity for CCBs and the collateral consequences on power plant operations associated with such a shortfall. Currently, two million tons of hazardous waste are disposed of annually in Subtitle C commercial disposal facilities. If only a small percentage of the approximately 134 million tons of CCBs generated annually are diverted to the commercial Subtitle C disposal market, there is little question that there will be significant disposal capacity shortfalls with attendant adverse impacts on power plants operations, as well as disruption to the Subtitle C disposal market for all hazardous waste generators, not just electric utilities.

5. Leachate Management/Zero Discharge: If CCBs are regulated as listed hazardous waste, leachate collected from CCB management units would, under the "derived-from rule" (*i.e.*, any solid waste derived from a listed waste is a listed hazardous waste), be classified as a listed hazardous waste. The leachate would have to be collected, stored and disposed of as hazardous waste. This would effectively mean that power plants would become "zero discharge" facilities for CCB contact water.

Any true assessment of listing CCBs as a hazardous waste must include the economic and operational impacts to facilities that would need to completely eliminate all discharges of CCB contact water. We are not aware of EPA evaluating this significant operational challenge and cost impact in developing its Subtitle C option.

6. Increased Tort Exposure: While not regulatory in nature, the designation of CCBs as a hazardous waste will almost certainly increase the toxic tort exposure to power plants generating and managing CCBs. The designation of CCBs as a federal hazardous waste will provide "technical" evidence to toxic tort lawyers that CCBs are *per se* dangerous and pose a health threat to power plant employees. Further, FGD gypsum now used as feedstock in the manufacturing of drywall for installation in residential and commercial structures will be viewed by consumers as a product containing a hazardous waste (the same view would likely apply to virtually all end-use products containing CCBs used in commercial and/or residential settings). This will increase the exposure of utilities to toxic tort and related product liability and "failure to warn" lawsuits for CCBs that are beneficially used, which in turn will create another disincentive for CCB beneficial uses.

POSSIBLE SUBTITLE D AUTHORITY FOR EPA TO EMPLOY IN DEVELOPING CCB RULES

EPA's current view is that RCRA does not provide the Agency with permitting and enforcement authority for Subtitle D CCB rules; we believe, however, that RCRA Subtitle D already provides EPA with this authority under section 4010(c). This is the statutory provision under which EPA has already developed federally enforceable non-hazardous waste rules for municipal solid waste landfills ("MSWLFs") and non-municipal solid waste landfills that may receive conditionally exempt small quantity generator ("CESQG") hazardous waste.

Section 4010(c) of RCRA provides:

Not later than March 31, 1988, the Administrator shall promulgate revisions of the criteria promulgated under paragraph (1) of section 6944(a) of this title and under section 6907(a)(3) of this title for facilities that may receive hazardous household wastes or hazardous wastes from small quantity generators under section 6921(d) of this title. The criteria shall be those necessary to protect human health and the environment and may take into account the practicable capability of such facilities. At a minimum such revisions for facilities potentially receiving such wastes should require ground water monitoring as necessary to detect contamination, establish criteria for the acceptable location of new or existing facilities, and provide for corrective action as appropriate.

In an earlier rulemaking implementing 4010(c), EPA limited the scope of the regulations to only those Subtitle D facilities that *actually* received CESQG hazardous waste. At that time, EPA took the position that the term "may" in section 4010(c) did not compel it to include in the rulemaking any Subtitle D facilities – such as CCB disposal units – that *could* receive CESQG hazardous waste. This narrow reading of 4010(c) is not compelled by the statute and there is nothing to prevent EPA from revisiting its interpretation of this provision of RCRA.

The plain language of the statute applies to "facilities that *may receive*" CESQG hazardous wastes. This language applies to CCB disposal units, as they are solid waste management units that, under RCRA's statutory scheme, may receive CESQG hazardous wastes. Nothing in this language requires EPA to limit the scope of this provision to only those units that actually receive CESQG. EPA should revisit the question of whether it has the discretion under 4010(c) to promulgate federally enforceable Subtitle D rules for a specified subset of Subtitle D facilities – *i.e.*, CCB management units – that "may receive" CESQG hazardous wastes. Nothing in the plain language of the statute precludes this interpretation; indeed, a plain reading of the statute supports this interpretation.