

EPA Releases Draft of Coal Combustion Residuals Ruling

The EPA released a draft of their soon to be published ruling on how coal combustion residuals will be regulated. The rule will not be considered an official draft rule until it is printed in the Federal Register. Once the proposed ruling is published, there will be a 90-day general public comment period. The ACPA will take the following steps:

1. Review and analyze the EPA draft (currently underway)
2. Wait for EPA CCR Rule to be published in the Federal Register and identify changes between the draft language and the published language, if any.
3. Submit ACPA's comments to the EPA.
4. Join with the North American Concrete Alliance in a joint submittal.
5. Track progress of the ruling and inform the membership of the outcome.

While this is being referred to as a ruling, it is in fact two proposed rulings that the EPA is considering. It appears that the EPA is poised to take one of the two regulatory alternatives that are described in the proposed ruling and will be requesting comments on the two proposed regulatory alternatives. The EPA will hold at least one public meeting during the 90-day comment process and expects to receive a large amount of comments once the ruling is published. Under the first proposal, the EPA would reverse its August 1993 and May 2000 Bevill Regulatory Determinations regarding coal combustion residuals (CCRs) and list these residuals as special wastes, subject to regulation under subtitle C of RCRA, when they are destined for disposal in landfills or surface impoundments. Under the second proposal, the EPA would leave the Bevill determination in place and regulate disposal of such materials under subtitle D of RCRA by issuing national minimum criteria. Under both alternatives, the EPA is proposing to establish dam safety requirements to address the structural integrity of surface impoundments to prevent catastrophic releases.

The EPA is not proposing to change the May 2000 Regulatory Determination for beneficially used CCRs, which are currently exempt from the hazardous waste regulations under Section 3001(b)(3)(A) of RCRA. However, EPA is clarifying this determination and seeking comment on potential refinements for certain beneficial uses. The EPA is also not proposing to address the placement of CCRs in mines, or non-mine fill uses of CCRs at coalmine sites in this action.

The EPA is explicit is supporting beneficial use of CCRs and has carved out beneficial use exceptions under both of the regulatory alternatives. However, the EPA also feels that it is necessary to enact tighter federal controls over unencapsulated uses of CCRs. The goal of the EPA is to encourage the safe use of recycled coal ash in environmentally safe applications. It appears that the preferred rule that the EPA is proposing will retain the exemption of federal regulation for CCRs that are recycled and beneficially used and will refrain from branding CCRs as a hazardous waste, but rather create a special category under RCRA C and classify them as 'special waste'.

Ruling Summary

Under the proposed ruling, both of the alternatives will regulate for the first time, coal combustion residuals (CCRs) under the Resource Conservation and Recovery Act (RCRA) to address the risks from the disposal of CCRs generated from the combustion of coal at electric utilities and independent power producers. The first alternative the EPA is to regulate CCRs under Subtitle C of RCRA as a “special waste subject to regulation under Parts 262 through 268 and Parts 270, 271 and 124” of Title 40 of the Code of Federal Regulations. The second alternative would regulate CCRs as solid wastes under Subtitle D of RCRA.

Subtitle C Summary:

Under the RCRC Subtitle C alternative the EPA would regulate CCR from the point of generation to the point of final disposal and permits would be required for disposal, treatment and storage of CCRs. Units managing CCRs would be subject to groundwater monitoring, fugitive dust control, financial assurance, corrective action and post-closure requirements. Generators and transporters of CCRs would fall under Subtitle C requirements. The rule would also regulate the disposal of CCRs in sand and gravel pits, quarries and other large fill applications, such as landfills. Requirements for dam safety and impoundment stability are also being proposed under this alternative.

Beneficial Use Under Subtitle C

Under the EPA’s Subtitle C alternative, CCRs that are “beneficially used” are exempt from the new regulations. The EPA refers to this material as Coal Combustion Products (CCPs) and defines them to mean “fly ash, bottom slag, or flue gas desulfurization materials, which are beneficially used.”

The EPA defines the Beneficial Use of Coal Combustion Products (CCPs) to mean:

“the use of CCPs that provides a functional benefit; replaces the use of an alternative material, conserving natural resources that would otherwise need to be obtained through practices such as extraction; and meets relevant product specifications and regulatory standards (where these are available). CCPs that are used in excess quantities (e.g., the field-applications of FGD gypsum in amounts that exceed scientifically-supported quantities required for enhancing soil properties and/or crop yields), placed as fill in sand and gravel pits, or used in large scale fill projects, such as for restructuring the landscape, are excluded from this definition.”

The EPA directly addresses the distinction between beneficial use and operations that it considers disposal. The EPA considers large volumes of CCRs that are used as fill material in sand and gravel pits or for restricting landscapes as disposal and not beneficial uses and as such would now be regulated.

Thus, CCRs that are beneficially used, referred to as CCPs, would not be subject to proposed regulations from the point of generation or recovery to the point where they are used beneficially. In addition, when beneficially used, the CCPs become part of a new product; these products would not carry the special waste listing. At the point when these products reach the end of their life and are to be disposed of, this would represent a new point of generation and this new waste would then be evaluated to be considered under RCRA subtitle C regulations by exhibiting hazardous waste characteristics (i.e., ignitability, corrosivity, reactivity, or toxicity).

Subtitle D Summary

Under the Subtitle D alternative, the EPA would regulate CCRs disposed of in surface impoundments or landfills under the RCRA subtitle D and would establish national criteria to ensure the safe disposal of CCRs. The disposal units would have location standards and require liners, groundwater monitoring, corrective action for releases and closure and post-closure requirements. The alternative would also regulate disposal CCRs in sand and gravel pits, quarries and other large fill applications. Also under this alternative the generation, storage or treatments of CCRs prior to disposal would not be regulated. Permits could be required under this alternative by states as part of their program implementing the Subtitle D alternative.

What does this mean to our industry?

Below are statements taken directly from the proposed ruling. Although there are no guarantees what the EPA will ultimately rule, one could conclude from reading these statements that the use of fly ash in the manufacturing of concrete pipe will not be considered a hazardous material. In our formal comments to the EPA, we will suggest that this includes unloading at the plant, storing, mixing, final product finishing, saw cutting, and ultimate transport to the job site.

EPA continues to believe the Bevill exclusion should remain in place for CCRs going to certain beneficial uses, because of the important benefits to the environment and the economy from these uses, and because the management scenarios for these products are very different from the risk case being considered for CCR disposal in surface impoundments and landfills.

To date, EPA has still seen no evidence of damages from the beneficial uses of CCRs that EPA identified in its original Regulatory Determination. For example, there is wide acceptance of the use of CCRs in encapsulated uses, such as wallboard, concrete, and bricks because the CCRs are bound into products. The Agency believes that such beneficial uses of CCRs offer significant environmental benefits. The beneficial use of CCRs offers significant environmental benefits, including greenhouse gas (GHG) reduction, energy conservation, reduction in land disposal (i.e., avoidance of potential

CCR disposal impacts), and reduction in the need to mine and process virgin materials and the associated environmental impacts.

Specifically

- 1. Reducing the amount of cement produced by beneficially using fly ash as a substitute for cement leads to large supply chain-wide reductions in energy use and GHG emissions.*
- 2. This results in a longer lasting material, thereby marginally reducing the need for future cement manufacturing and corresponding avoided emissions and energy use.*
- 3. CCRs can be substituted for many virgin materials that would otherwise have to be mined and processed for use.*
- 4. Reducing mining, processing and transport of virgin materials also conserves energy, avoids GHG emissions, and reduces impacts on communities.*
- 5. Beneficially using CCRs instead of disposing of them in landfills and surface impoundments also reduces the need for additional landfill space and any risks associated with their disposal.*
- 6. While the Agency recognizes the need for regulations for the management of CCRs in landfills and surface impoundments, we strongly support the beneficial use of CCRs in an environmentally sound manner because of the significant environmental benefits that accrue both locally and globally. The current beneficial use of CCRs as a replacement for industrial raw materials (e.g., portland cement, virgin stone aggregate, lime, gypsum) provides substantial annual life cycle environmental benefits for these industrial applications. Specifically, beneficially using CCRs as a substitute for industrial raw materials contributes (a) \$4.89 billion per year in energy savings, (b) \$0.081 billion per year in water savings, (c) \$0.239 billion per year in GHG⁵⁹ (i.e., carbon dioxide and methane) emissions reduction, and (d) \$17.8 billion per year in other air pollution reduction. In addition, these applications also result in annual material and disposal cost savings of approximately \$2.93 billion per year. All together, the beneficial use of CCRs provides \$25.9 billion in annual national economic and environmental benefits.*