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**ELECTRONIC DELIVERY: [rcra-docket@epa.gov](mailto:rcra-docket@epa.gov)**

November 19, 2010

U.S. Environmental Protection Agency  
Attention Docket ID No: EPA-HQ-RCRA-2009-0640  
Mailcode: 28221T  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460

Re: Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals from Electric Utilities; Proposed Rule; *75 Federal Register* 35128-35264 (June 21, 2010) and corrections in *75 Federal Register* 51434-51436 (August 20, 2010)

To Whom It May Concern:

The Associated General Contractors of America (AGC) provides the following comments on the U.S. Environmental Protection Agency's (EPA) proposed rule to regulate coal combustion residuals (CCRs) under the Resource Conservation and Recovery Act (RCRA). EPA is considering two regulatory options: reverse the August 1993 and May 2000 Bevill Regulatory Determinations regarding CCRs and regulate disposal of these residuals under subtitle C of RCRA, or leave the Bevill determinations in place and regulate disposal of these residuals under subtitle D of RCRA. While it appears from the proposed rule that the EPA views the differing characterizations to be largely alleviated by leaving the Bevill determination in place for beneficially used CCRs, other language in the proposed rule advocating subtitle C re-characterization upon demolition or at the end of the recycled material's useful life effectively eliminates the beneficial use protection. The stated re-characterization mechanism will create a stigma that could result in curtailing one of the most widely and successfully recycled products and negatively impact natural resources, landfills and the key EPA policy goal of encouraging recycling on a large commercial scale.

AGC is interested in this rulemaking because CCRs are beneficially used in many types of construction applications, ranging from concrete and asphalt to carpet and wallboard. Because the beneficial use exemption could disappear upon demolition of the exempted use or at the end of the useful life cycle of the exempted use, regulation under subtitle C would adversely impact the beneficial use of those materials by creating a stigma against their use. Likewise, because of the potential for this later re-characterization as subtitle C waste, contractors would face many uncertainties and potential risks related to the storage, handling, use and disposal of those materials as well as in the demolition or renovation of sites where those materials may have been used.

AGC of America is the largest and most diverse trade association in the construction industry. The association represents more than 33,000 companies in 96 chapters throughout the United States. AGC members include more than 7,500 of America's leading general construction contractors, 12,500 specialty contractors, and 13,000 material suppliers and service providers to the construction industry. AGC members are engaged in the construction of commercial buildings, factories and other industrial facilities,

warehouses, highways, bridges, airports, waterworks facilities, waste treatment facilities, dams, water conservation projects, defense facilities, and multi-family housing projects, and in-site preparation and utilities installation for housing development.

AGC has a history of working with EPA to facilitate and encourage both the recycling of construction and demolition debris and the beneficial use of industrial byproducts. Historically, fly ash and other CCRs have been a part of one of the most successful recycling efforts. AGC would like to protect the continued beneficial use of these materials in construction. The construction industry's use of this material is a leading example of how industry can move towards a closed-loop cycle process, turning one industry's byproduct into another industry's raw material. This approach eases the strain on the nation's natural resources by reducing the requirements for obtaining new materials and alleviates already strained landfill accommodations. EPA estimates that substituting fly ash for a portion of the cement otherwise needed to produce concrete also helps the nation avoid 5 million tons of greenhouse gas emissions each year. In the case of fly ash, other benefits include an improvement in the performance of both concrete and hot-mix asphalt.

### **THE BENEFICIAL USE OF COAL COMBUSTION RESIDUALS (CCRs)**

The beneficial use of fly ash and other CCRs in construction is not a new or untested process. Fly ash has a long history of use and there are studies that demonstrate its performance. Industry standards guide the specifiers who choose to use CCRs on specific projects. Because fly ash and other CCRs are widely used in highway and road construction, the various state departments of transportation also have guidelines that determine how the materials are to be used on projects. Researchers and innovators are finding new ways to beneficially use these materials, and any uncertainty about the future of beneficial use will deter, if not risk elimination of, further innovation in this area.

#### ***How It's Used***

The construction industry has used CCRs, primarily fly ash, for approximately sixty years in the construction of roads and highways, and the material also goes into a variety of construction materials. "Currently, over 20 million metric tons (22 million tons) of fly ash are used annually in a variety of engineering applications. Typical highway engineering applications include: Portland cement concrete (PCC), soil and road base stabilization, flowable fills, grouts, structural fill and asphalt filler." (See Federal Highway Administration (FHWA) website at <http://www.fhwa.dot.gov/pavement/recycling/fafacts.pdf>.) Wet bottom ash and flue gas desulfurization (FGD) wastes also are commonly used in highway construction as base material, flowable fill, embankment fill, and soil and road base stabilization.

In the building construction market, fly ash and other CCRs are diverted into floorings, landscape features, insulation, drywall/wall board, mortars and grouts, masonry blocks and building exteriors. CCRs are used as fill material in carpet backings, a use that likely would be jeopardized by a hazardous designation. (See Carpet and Rug Institute comment letter August 31, 2010, EPA-HQ-RCRA-2009-0640-4044.1) Coal combustion residuals also are used as base, backfill, foundations and structural fill materials in building construction.

AGC is not aware of any damages or injuries that have resulted from these beneficial uses and would like to ensure that both the encapsulated and the unencapsulated uses of CCRs in construction will continue to be encouraged without risk that a present day use will give rise to unexpected future exposure to regulatory re-characterization as a subtitle C waste. For its part, EPA has found no reason to change course:

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. (75 FR 35154)

EPA has identified a few problems involving large-scale fill operations—most involved the placement of fly ash and bottom ash in sand and gravel quarries and one involved the beneficial use of 1.5 million yards of fly ash to contour a golf course. Because of these cases, EPA is proposing not to accept large-scale placement of CCRs (which it likens to disposal) as an approved beneficial use. However, EPA recognizes that these uses are not typical of the construction industry’s beneficial use of CCRs. (75 FR 35164) What EPA should also consider is that, in the case of the golf course, an “EPA study in April 2010 established that residential wells near the site were not impacted by the fly ash and, therefore, EPA does not consider this site a proven damage case.” (75 FR 35147)

While AGC supports EPA’s proposed decision to leave in place the May 2000 Bevill Regulatory Determination for CCRs that are beneficially used, in order to continue the supportive environment encouraging the use of this material, then EPA should select the subtitle D option. As discussed below, even with the Bevill Regulatory Determination intact for beneficial use, subtitle C and the “special” hazardous waste designation would create an unwarranted stigma against beneficial use and introduce uncertainties and risk into the process of beneficially using CCRs.

### ***How It’s Transported and Handled***

Coal combustion residuals are used in construction many different ways, as discussed above, and the type of beneficial use will determine the CCR material needed, and how it is transported and handled. The most common beneficial use is fly ash as a substitute for a certain percentage of cement in concrete (percentage varies according to the project specifications). EPA estimates that more than 14 million tons of coal ash are annually diverted into concrete. In that case, the dry fly ash typically is transported via a tanker to a concrete or construction company’s facility and transferred via blowers to a silo where it will be mixed with cement and other materials into concrete. The mixing process typically is automated and there is very little worker contact. Sometimes, the fly ash is already incorporated into the product and arrives on a jobsite ready for use or installation.

In its November 2, 2009 letter to EPA (*see* Attachment A), AGC mentioned that we have yet to see any reports that the many ways in which the industry uses these materials have any negative effects on either the health of construction workers or the environment. Notwithstanding, the public interest in coal combustion wastes, and after discussions with members about the proposed rulemaking, AGC has yet to discover even anonymous reports of negative impacts on workers from materials associated with beneficial use. In interviews with AGC staff, contractors have reported that they handle fly ash with the same precautions and care they apply to cement, sand, aggregates and other similar materials. EPA confirms that “In this respect [beneficial use in construction or agriculture], CCRs are similar to other materials used in this manner—including raw materials derived from quarried aggregates, secondary materials from other industrial processes, and materials derived from natural ores.” (75 FR 35162)

### ***Standards and Guidelines Regarding the Use of Fly Ash in Construction***

Throughout the years of use in construction, industry groups, standards organizations and government have stepped forward to study the beneficial use of CCRs and to develop standards for use, specifications and guidelines. Although these standards and guidelines do not focus on environmental issues, EPA

should look to these organizations as experts in the beneficial uses of CCRs. The states' departments of transportation (DOTs) have an enormous wealth of knowledge regarding fly ash use in highway and transportation construction, and AGC encourages EPA to carefully review the comments it receives from state DOTs and associated organizations such as the American Association of State Highway and Transportation Officials (AASHTO).

DOTs have studied fly ash and other CCRs and understand that beneficial use is not a one-size-fits-all practice. They have differing requirements and guidelines—as appropriate—regarding its use on their projects based on the type of beneficial use, specific project needs, the properties of locally available CCRs, climate and other local factors. Some DOTs do not allow fly ash for use as structural fill or embankments, others do and require filtering layers below the fly ash, overlayment and specific gradation. Some allow blending of fly ash with other materials, others do not. State agencies typically have varying guidelines for the use of many industrial and recycled materials—such as glass, scrap tires, scrap iron, steel slag, flue gas desulfurization waste and plastics—based on local factors and priorities.

AASHTO and ASTM have the most widely used industry standards related to fly ash use in concrete and other construction applications. AASHTO developed a standard to govern its use: M 295 Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete. “AASHTO M 295 delineates the physical, chemical, and mechanical properties requirements for fly ash to comply with the Class F or Class C specifications. Generally speaking, Class F fly ash is pozzolanic, with little or no cementing value alone, and Class C has both self-cementing properties as well as pozzolanic properties.” (See Venner Consulting and Parsons Brinckerhoff, NCHRP 25-25(04) Final Report: Environmental Stewardship Practices, Procedures, and Policies for Highway Construction and Maintenance, September 21, 2004, p5-41 and 5-42)

ASTM C618-08 Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete also is a commonly used standard. ASTM has incorporated the use of fly ash into several other standards for the construction industry, for example—

- ASTM C311-07 Standard Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland-Cement Concrete
- ASTM C1697-10 Standard Specification for Blended Supplementary Cementitious Materials (for use in concrete or mortar)
- ASTM C441-05 Standard Test Method for Effectiveness of Pozzolans or Ground Blast-Furnace Slag in Preventing Excessive Expansion of Concrete Due to the Alkali-Silica Reaction
- ASTM C412-05a Standard Specification for Concrete Drain Tile
- ASTM C985-04(2010) Standard Specification for Nonreinforced Concrete Specified Strength Culvert, Storm Drain, and Sewer Pipe
- ASTM C476-10 Standard Specification for Grout for Masonry

AGC supports EPA's efforts to work with other federal agencies (FHWA, Department of Energy, and Department of Agriculture), academia and other groups to develop guidance and best management practices for beneficial use of CCRs. AGC appreciates that EPA recognizes the expertise of these groups, is amenable to working with them on beneficial use and that the agency ultimately would prefer “an approach that would allow beneficial uses to continue, under state controls, EPA guidance, and current industrial standards and practices.” (75 FR 35162)

## **EPA'S PRIOR VIEWPOINT ON REGULATION OF COAL COMBUSTION WASTES AND BENEFICIAL USE**

On May 22, 2000, EPA published a Regulatory Determination on Wastes from the Combustion of Fossil Fuels in which—

EPA concludes that the remaining fossil fuel combustion wastes do not warrant regulation as hazardous waste under Subtitle C of RCRA and is retaining the hazardous waste exemption for those wastes. However, EPA determines that national non-hazardous waste regulations under RCRA Subtitle D are needed for coal combustion wastes disposed in surface impoundments and landfills and used as fill in surface or underground mines (minefill). EPA further determines that beneficial uses of these wastes, other than for minefilling, pose no significant risk and no additional national regulations are needed. (See EPA's website at <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/regs.htm>.)

The August 9, 1993 Regulatory Determination and March 31, 1999 Report to Congress also state that these wastes do not warrant regulation under Subtitle C.

The agency has invested significant program resources in promoting the beneficial use of these materials and previously has recommended that industry use the materials and that government agencies revise their procurement programs to allow the use of fly ash.

On May 1, 1995, the Environmental Protection Agency (EPA) published the Comprehensive Guideline for Procurement of Products Containing Recovered Materials, also known as the CPG. The CPG consolidated five existing item designations, and designated 19 new items that can be made with recovered materials. Of the items contained in the new CPG, one is of primary concern to the Federal-aid highway program: cement and concrete containing coal fly ash or GGBF slag.

In addition to the CPG, the EPA also published the Recovered Materials Advisory Notice (RMAN) which contains the EPA's recommendations to procuring agencies for meeting their Resource Conservation and Recovery Act (RCRA) obligations with respect to the existing and newly designated items. The key recommendations contained in the RMAN are:

- The EPA recommends that procuring agencies revise their procurement programs for cement and concrete or for construction projects involving cement and concrete to allow the use of coal fly ash or GGBF slag, as appropriate.
- The EPA recommends that procuring agencies include provisions in construction contracts to allow for the use, as optional or alternate materials, of cement or concrete containing coal fly ash or GGBF slag, where appropriate.
- The EPA recommends that procuring agencies review and revise performance standards to ensure that they do not arbitrarily restrict the use of GGBF slag unless the restriction is justified on a job-by-job or application specific basis for documented technical reasons.

Due to variations in coal fly ash, GGBF slag, cement, strength requirements, costs, and construction practices, the EPA is not recommending recovered materials content levels for cement or concrete containing coal fly ash or GGBF slag. Additionally, the EPA does not recommend that procuring agencies favor one material over the other. These recommendations are consistent with the FHWA's current policies regarding the use of coal fly ash in cement or concrete, and States currently in compliance with those requirements will not be required to

change specifications for its use. (See FHWA website at <http://www.fhwa.dot.gov/pavement/materials/matnote51.cfm>.)

## **CURRENT EPA VIEWPOINT ON BENEFICIAL USE**

Throughout the rulemaking process, EPA has stated numerous times that it would like to protect the beneficial use of coal combustion residuals. The proposal would not reverse the Beville determination for waste intended for most beneficial uses.

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. (75 FR 35154)

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. As discussed...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 GHG (*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. All together, the beneficial use of CCRs provides \$25.9 billion in annual national economic and environmental benefits (relative to 2005 tonnage). (75 FR 35154-35155)

## **FUTURE OF BENEFICIAL USE IS UNCLEAR – STIMGA AND RISK**

Even though EPA supports beneficial use, the proposed rule does not provide clear insight as to what beneficial uses would be allowed to continue; indeed, the future of beneficial use is unclear. Throughout the proposed rule, EPA is favorable of encapsulated uses; however, EPA is still seeking more information on those uses for evaluation. The agency provides some examples of beneficial use, from its May 2000 Regulatory Determination, that would likely be acceptable and requests information from the public on acceptable uses and amounts used in specific applications.

Beneficial purposes include waste stabilization, beneficial construction applications (*e.*, cement, concrete, brick and concrete products, road bed, structural fill, blasting grit, wall board, insulation, roofing materials), agricultural applications (*e.g.*, as a substitute for lime) and other applications (absorbents, filter media, paints, plastics and metals manufacture, snow and ice control, waste stabilization). (65 FR 32229)

EPA also inquires whether it should provide a list of approved beneficial uses. Insofar as a listing with examples of acceptable uses would increase certainty about the beneficial use of CCRs in construction industry, AGC supports such a list. Where that list would stifle innovation in the beneficial use of CCRs, AGC urges caution as the proposed rule states that “new and innovative uses that are not on the list would be subject to disposal regulations, until EPA revised its rule.” (75 FR 35163) The list should allow for

uses consistent with the stated rule and the examples already listed so as to encourage continued innovation. EPA also should release a draft of that list for public comment.

For unencapsulated uses, the agency uses vague terms such as “in excess quantities” or “large scale fill projects” to describe what henceforth would be unacceptable beneficial use practices, yet the agency does not quantify excessive or large scale amounts. The proposed rule also states that large-scale fill use would be considered landfilling—in effect, subject to regulation either under the proposed subtitle C or subtitle D regulations. (75 FR 35163) The proposed rule suggests that EPA intends this to apply to the types of beneficial use where they had prior damage cases or potential damage cases (*i.e.*, sand and gravel pit fill, quarry fill, or cases similar to the golf course example where 1.5 million yards were used). However, without quantifying amounts, these descriptions may include structural fill, base course or road embankments for large construction projects—beneficial uses that EPA appears to support. For example, if fly ash is used as base material and embankment fill on a roadway project, as well as in the concrete surface would EPA consider that application as “excessive”? Would it depend on how many miles the project encompasses? How does EPA intend to quantify acceptable amounts for each use? Would permits be required to ensure the amounts used on any given project are acceptable? What liability would this introduce for future and past projects that have used fly ash?

AGC encourages EPA to define or provide guidance on the meaning of “excessive” and “a large-scale fill operation,” and EPA recognizes this need. EPA also recognizes that the unencapsulated uses of CCRs in construction are very different in nature from landfills or impoundments (75 FR 35164) and that they have not found damage to result from beneficial use in construction (75 FR 35154). AGC encourages EPA to safeguard the use of unencapsulated CCRs by the construction industry.

EPA acknowledges the concerns of many state agencies and industries that a subtitle C determination would introduce a stigma on the beneficial use of these materials; however the agency appears skeptical that this would be the case. The agency explores a potential stay-the-same beneficial use scenario, a decrease in beneficial use scenario, and an increase in beneficial use. However, EPA favors the assumption that subtitle C would actually increase the amount of waste beneficially used as power plants try to reduce the amounts they would need to send to expensive hazardous waste landfills. (75 FR 35134, 35215) The Office of Management and Budget evaluates five scenarios for beneficial use and only assumes one of those examples would increase the amount beneficially used; the remaining four all assume a loss in beneficial use ranging from 4 percent to 42 percent. (*See* EPA-HQ-RCRA-2009-0640-0010.) On what information and available studies does EPA base its assumption of increased beneficial use under the subtitle C option? EPA should take into account that the many private industries, state and local governments and agencies that beneficially use these materials project a stigma should EPA label them as hazardous. In addition, the public is clearly concerned about the management of fly ash in large-scale disposal and storage operations. Will the public understand how EPA has decided that fly ash is “OK” when used in products that go into their homes and offices but it is “hazardous” when it is instead put in the landfill? Recent requests from environmental groups for EPA to re-evaluate all beneficial uses of CCRs demonstrate that the stigma against these materials is real.

Contractors who completed an informal survey and interviews by AGC staff have indicated that they expect a stigma with its use should EPA regulate it under subtitle C. They expressed concern about the risk associated with using and disposing of what may be a hazardous material: What testing would be required? What changes should they expect when storing, handling, transporting and disposing of materials that contain CCRs? When would those special requirements come into effect on their jobsite? Would they be able to obtain liability insurance? Contractors also indicated concern with the anticipated rising costs of energy (from plants that must dispose of hazardous waste), cement (due to increased



demand to replace fly ash), demolition (to evaluate and remove CCR materials onsite) and the hauling and disposal of any construction debris and demolition waste that may contain CCRs. Many states consider concrete as inert fill material. Would that status remain? Additionally, many materials that contain CCRs are reused, such as crushed concrete. Would that practice continue? What about residue from cleaning equipment or left-over materials? Gaining industry acceptance of industrial byproducts such as fly ash and other CCRs has been a huge hurdle for EPA and AGC in their work to increase recycling. Those contractors who previously expressed concern to EPA over their projects being considered “linear landfills” or “future Superfund sites” now seem justified in their criticism.

Private industry and other beneficial users of CCRs are not the only groups concerned about a using the material should EPA deem it hazardous. Some states, such as Florida, Illinois, Minnesota, Pennsylvania, Texas and Wisconsin—which represent 32 percent of the total 44.7 million annual tons of CCR beneficial uses as of 2004—will not allow the beneficial use of a hazardous material.

Of the 10 states listed below (FL, GA, IA, IL, IN, MN, PA, TX, UT, WI) identified by ORCR as major users of coal combustion fly ash, seven of these states have industrial waste regulations or statutes that are available on-line. Based on the 2007 EIA-860 "Annual Electric Generator Report" database published by the Energy Information Agency of the US Department of Energy, these 10 states represent 188 (i.e., 38%) of the 495 NAICS 221112 coal-fired electric utility plants, and represent 63 million (i.e., 42%) of the ORCR-estimated 149 million annual tons CCR generation by these 495 plants (2007).

Six of these 10 states (FL, IL, MN, PA, TX, WI) limit industrial waste beneficial use to “non-hazardous” wastes. These six states represent 32% percent of the total 44.7 million annual tons of CCR beneficial uses as of 2004. Consequently, if CCR disposal becomes listed as RCRA “hazardous” waste, then its beneficial use could be affected in these states if RCRA-authorized state government programs were to prohibit CCR beneficial uses as a result of such hazardous waste listing for CCR as a RCRA Subtitle C “hazardous” waste. (*See* Degreare and Cochran, State Government Coal Combustion Ash Beneficial Use Programs and Federal RCRA “Hazardous Waste” Regulation, April 16, 2009, EPA-HQ-RCRA-2009-0640-0271)

The potential liability “after beneficial use” also would increase the stigma against initially using the material in a beneficial way. EPA states that it could label CCRs as “special waste” subject to subtitle C regulations, in order to reduce the stigma attached to hazardous waste. (75 FR 35174) Yet, language in this section of the proposed rule states that after fly ash is beneficially used an entity (the general contractor? project owner? demolition contractor? remediation contractor? waste hauler? recycler?) would then be considered a generator of hazardous waste if that material is to be disposed of. Under this option, the material could only be beneficially used with the understanding that it may revert back to being subject to subtitle C regulation after it is used.

“...when beneficially used (e.g., in wallboard and concrete), the CCRs become part of a new product; these products do not carry the special waste listing. When these products reach the end of their useful life and are to be disposed of, this represents a new point of generation. This new waste would be subject to RCRA subtitle C if the waste exhibits a characteristic of hazardous waste (i.e., ignitability, corrosivity, reactivity, or toxicity.)” (75 FR 35173)

This section directly conflicts with an earlier section in the proposed rule that states, “EPA also wants to make clear that wastes that consist of or contain these Bevill-exempt beneficially used materials,



including demolition debris from beneficially used CCRs in wallboard or concrete that were generated because the products have reached the end of their useful lives—would also not be listed as a special waste subject to subtitle C of RCRA, from the point of their generation to their ultimate disposal.” (75 FR 35162) EPA needs to clarify exactly when the Bevill exemption would apply for beneficial use and when it would cease to cover beneficially used CCRs. This also is a key reason why the subtitle D characterization should be used for this material in the first instance.

While AGC does not view that concrete incorporating fly ash would exhibit the characteristics of a hazardous waste, even upon future demolition; other differing views could cloud and stigmatize this use. As a result, contractors may be required to perform hazardous materials testing before demolition on projects that may have used fly ash or other CCRs in concrete or other applications, such as fill. This language also raises questions from AGC members about previous projects that have incorporated fly ash and that are now to be demolished. What if EPA decides embankment or structural fill is not an approved beneficial use: Would sites that incorporated fly ash as fill then be considered brownfields or Superfund sites? Would those sites require remediation?

### **OVERWHELMING SUPPORT FOR SUBTITLE D**

Private industry as well as federal and local agencies and governments have expressed support for the subtitle D option. Kansas, Kentucky, Ohio and Virginia have all gone on record in the docket for this proposed rule stating support for subtitle D as have the Western Governors and Environmental Council of the States. Several DOTs—such as Utah, New Mexico, Texas and New Hampshire—and AASHTO all have stated support of subtitle D. AASHTO states its support of the use of fly ash in construction and also its concern with the stigma associated with that use if EPA chooses subtitle C. (*See* EPA-HQ-RCRA-2009-0640-0051) The Department of Energy (DOE) also states its support of subtitle D. (*See* EPA-HQ-RCRA-2009-0640-0084)

In the proposed rule, EPA states multiple times that the requirements under subtitle D are sufficient to protect the environment and human health. In fact, with the added protections EPA is proposing under subtitle D, there is little benefit to be gained from the subtitle C approach, particularly considering the resulting risk to encouraging beneficial use. “In addition, EPA considered that many of the technical requirements that EPA developed to specifically address the risks from the disposal of CCRs as part of the subtitle C alternative, would be equally justified under a RCRA subtitle D regime. ...Thus, several of the provisions EPA is proposing under RCRA subtitle D either correspond to the provisions EPA is proposing to establish for RCRA subtitle C, or are modeled after the existing subtitle C requirements.” (75 FR 35193) Through the RCRA subtitle D proposal “EPA intends to provide a complete set of requirements, designed to ensure there will be no reasonable probability of adverse effects on health or the environment caused by CCR landfills or surface impoundments.” (75 FR 35194)

In the very beginning of the proposed rule, EPA states that the central issue is not whether subtitle D would adequately safeguard human health and the environment, rather it is whether states programs would be adequate. “The Agency would implement similar technical controls under RCRA subtitle C or D. Therefore, a central issue is the adequacy of State programs. Under either regulatory approach, State programs will have key implementation roles.” EPA observes that states do not have liner requirements, yet, even so, “we also observe that nearly all new CCR landfills and surface impoundments are constructed with liners.” EPA seems to doubt that states would follow guidelines under subtitle D, yet the agency appears to contradict itself by then stating that “states have considerable expertise in their State dam safety programs” and that “those programs do not tend to be part of State solid waste or clean water act programs, and so, oversight may not be adequately captured in EPA’s existing data.” (*See* 75 FR

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35133) DOE has summarized studies it conducted that show the improved management of coal combustion wastes at power plants nationwide. DOE also projects these safe practices to increase when states are “empowered” through subtitle D. (*See* EPA-HQ-RCRA-2009-0640-0084) In addition, EPA has options for enforcement even if the waste is determined non-hazardous and regulated under subtitle D. “EPA can however take action under section 7003 of RCRA to abate conditions that ‘may present an imminent and substantial endangerment to health or the environment.’ EPA could also use the imminent and substantial endangerment authorities under CERCLA, or under other federal authorities, such as the Clean Water Act, to address those circumstances where a unit may pose a threat.” (75 FR 35211)

## **CLOSING**

AGC urges EPA to make a nonhazardous waste designation for CCRs, thereby ensuring the continued beneficial use of those materials. AGC would likely find it difficult to encourage members to use these materials —without strong reservation—if the materials are determined hazardous even with the temporary non-hazardous status EPA proposes for when they are being used on a construction site. In fact, the beneficial use industry needs the confidence as it moves forward that EPA has determined these materials are not hazardous waste and will not later become hazardous waste simply because it is demolished or reaches the end of its useful life.

After reviewing the proposed rule, there are still too many unknowns about the future of beneficial use. AGC respectfully requests additional opportunities to offer comment once EPA has provided more information on the beneficial use sections and the long-term implications for beneficial use in the proposed rule.

Respectfully submitted,



Melinda L. Tomaino  
Director, Green Construction

# **ATTACHMENT A**

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## **ELECTRONIC DELIVERY**

November 2, 2009

The Honorable Lisa Jackson  
Administrator  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W. (Mail Code 1101A)  
Washington, D.C. 20460

RE: EPA Consideration of Coal Combustion Waste Regulation

Dear Ms. Jackson:

We are writing to express our concern that the U.S. Environmental Protection Agency (EPA) is too quickly preparing to propose federal requirements for the future management of coal combustion waste. In its haste to respond to a containment failure at a large Tennessee impoundment, EPA could easily jeopardize the many ways in which the construction industry makes beneficial uses of this material. We request and would welcome any opportunity to meet with your office to further explain the many ways in which the construction industry recycles such waste, and specifically fly ash, in the process of constructing roads and buildings. For both environmental and economic reasons, AGC believes that the many opportunities for the construction industry to make beneficial use of this material are critically important to preserve.

The Associated General Contractors of America is the largest and most diverse trade association in the construction industry. The association represents more than 33,000 companies in 96 chapters throughout the United States. AGC members include more than 7,500 of America's leading general construction contractors, 12,500 specialty contractors, and 13,000 material suppliers and service providers to the construction industry. AGC members are engaged in the construction of commercial buildings, factories and other industrial facilities, warehouses, highways, bridges, airports, waterworks facilities, waste treatment facilities, dams, water conservation projects, defense facilities, and multi-family housing projects, and in-site preparation and utilities installation for housing development.

AGC has a history of working with EPA to facilitate and encourage both the recycling of construction and demolition debris and the beneficial use of industrial byproducts, such as fly ash. The construction industry's use of this material is a leading example of how industry can move towards a closed-loop cycle process, turning one industry's byproduct into another industry's raw material. This approach eases the strain on the nation's natural resources by reducing the requirements for new material and stretching landfill space. EPA estimates that substituting fly ash for the cement otherwise needed to produce concrete also helps the nation avoid 5 million tons of greenhouse gas emissions each year. In the case of fly ash, other benefits include an improvement in the performance of both concrete and hot-mix asphalt.

The construction industry has used fly ash for approximately sixty years in the construction of roads and highways, and the material also goes into a variety of construction materials. On its web site (at <http://www.fhwa.dot.gov/pavement/recycling/fafacts.pdf>) the Federal Highway Administration reports:

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Currently, over 20 million metric tons (22 million tons) of fly ash are used annually in a variety of engineering applications. Typical highway engineering applications include: portland cement concrete (PCC), soil and road base stabilization, flowable fills, grouts, structural fill and asphalt filler.

According to EPA, more than 14 million tons of coal ash are annually diverted into concrete. Fly ash and other coal combustion wastes are also diverted into floorings, landscape features, insulation, drywall/wall board, mortars and grouts, masonry blocks and building exteriors. Coal combustion wastes are also used as base, backfill, foundations and structural fill materials in building construction.

Notwithstanding the widespread use of coal combustion materials throughout the construction industry, AGC has yet to see any reports that the many ways in which the industry uses these materials have any negative effects on either the health of construction workers or the environment. AGC is extremely sensitive to the health and safety of such workers, and to the industry's impact on the environment. It is also aware of the concerns raised by the Tennessee incident, which involved one billion gallons of wet waste. Nevertheless, AGC remains far from certain that EPA has cause to act in such great haste.

AGC understands that EPA is currently evaluating its regulatory options under the Resource Conservation and Recovery Act, including the option of designating of coal combustion waste as a hazardous (Subtitle C) material. AGC believes that even a conditional designation of coal combustion waste as a hazardous material would strongly discourage the construction industry from making the any beneficial use of such material in the future. At a minimum, it would stigmatize all such material. It could also trigger a host of other regulatory requirements, including requirements for the transportation of such material, and both requirements for the storage and handling of even small quantities. It could also frighten the surety and insurance industries, making bonds or insurance coverage for any beneficial use of such material either difficult or impossible to purchase. It could even trigger a wave of frivolous but still expensive litigation.

Economic factors are also at work. Cement prices are heavily influenced by demand for construction. AGC has often witnessed steep increases in the price of cement based on that demand. Once the current recession passes, the market forces that were driving up that price are more than likely to reassert themselves. If EPA makes coal combustion waste impractical to substitute for cement, the next spike in the price of cement could be even worse. As noted, fly ash is a component of many construction materials, and price of those materials would also climb.

If EPA nevertheless feels compelled to act quickly, AGC urges the agency accurately to designate coal combustion waste as a non-hazardous (Subtitle D) material, encouraging appropriate state regulation of large impoundments, backed by national guidelines.

Thank you for taking our concerns into account. Again, we request and welcome a meeting with your office to discuss the best way for EPA to approach coal combustion waste and its beneficial use throughout the construction industry. To arrange a meeting, please contact me at [tomainom@agc.org](mailto:tomainom@agc.org) or (703) 837-5415.

Sincerely,

*Melinda Tomaino*

Melinda L. Tomaino  
Director, Green Construction

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cc: M. Hale, EPA Office of Resource Conservation and Recovery  
A. Livnat, EPA Office of Solid Waste  
B. Benson, EPA Office of Policy, Economics and Innovation, Sector Strategies Program  
Office of Management and Budget (OMB) Office of Information and Regulatory Affairs (OIRA)  
attendees at October 16, 2009 meeting on coal combustion waste:  
Cortney Higgins, OMB OIRA  
Nancy Beck, OMB OIRA  
Dominic Mancini, OMB OIRA