Potential Effect of Proposed Coal Combustion Residuals Regulation and Alternative Leach Testing on Beneficial Reuse

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ABSTRACT

The proposed regulations for CCR disposal were noticed for public comment in June 2010. These draft rules suggest the USEPA may regulate CCR destined for disposal as a hazardous (Subtitle C) or non-hazardous (Subtitle D) waste, either of which would lead to new guidance affecting handling, disposal. Although beneficial uses are excluded from the proposed rule-making, these uses will be affected by the rules (e.g., hazardous waste stigma) and EPA has not ruled out further regulation of beneficial use. Today about 43% of CCRs are recycled or re-used. Encapsulated end uses (mostly concrete and cement) may be relatively unaffected by a hazardous classification. However, unencapsulated uses including geotechnical fills, subgrade stabilization, pavement base courses, mine fills and flowable fills are threatened by the stigma from Subtitle C classification or potential additional regulation. Additionally, new column testing and performance modeling procedures being researched by USEPA are likely to impact beneficial uses. Unencapsulated end uses have been historically regulated and approved based on empirical batch testing techniques to evaluate leaching potential, including the Toxic Characteristic Leaching Procedure (TCLP), Water Leach Procedure (ASTM-3987) or the Synthetic Precipitation Leach Procedure (SPLP). These procedures are likely to be replaced by new column testing procedures and performance modeling to evaluate potential leaching and environmental impacts. A review of these leach testing procedures and how these may affect management decisions regarding unencapsulated uses will be discussed.

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