

EPA's Proposed Rule for Coal Combustion Residuals

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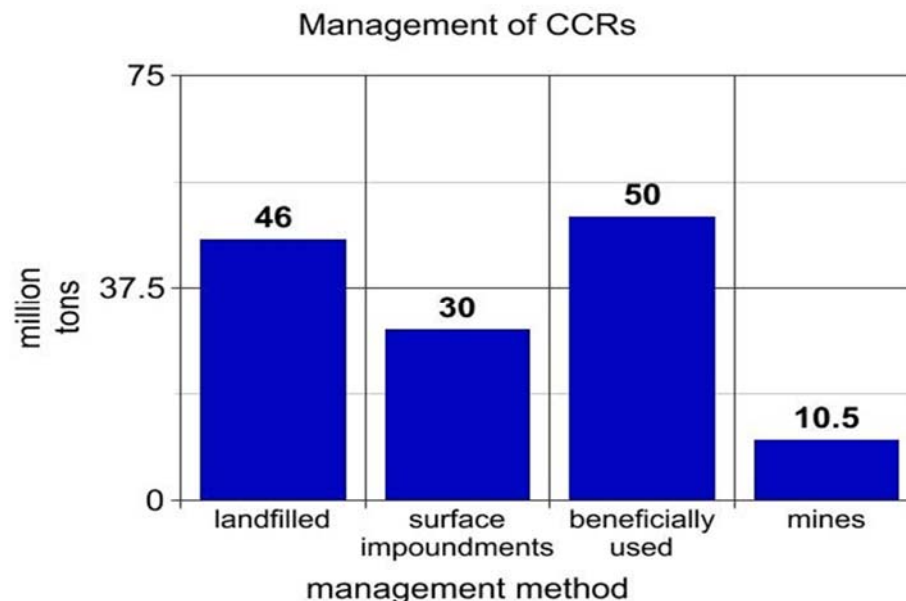


Overview

- Provide a summary of the co-proposal
- Highlight key issues we are requesting comment on
- NOTE: this session is not a forum to take official comment

The Basics

- ❑ Coal Combustion Residuals (CCRs) are byproducts from the combustion of coal – fly ash, bottom ash, boiler slag, and flue gas desulfurization materials
- ❑ Currently (2008) more than 136 million tons generated per year
- ❑ Approximately 300 CCR landfills and 584 surface impoundments in use at approximately 495 coal-fired power plants



CCRs – The Proposal

- On June 21, 2010, EPA proposed **2 approaches** for regulating disposal of CCRs under RCRA
 - Subtitle C approach
 - Subtitle D approach
- Proposal covers CCRs generated from the combustion of coal at electric utilities and independent power producers
- Does not cover coal-fired electric plants used captively by industries or universities

CCRs – The Proposal (Continued)

- Engineering requirements (e.g., liners, groundwater monitoring) of the 2 options are very similar; differences are primarily in enforcement and implementation
- Bevill exemption from regulation would remain in place for beneficial uses of CCRs
- Minefilling is not covered by the proposal

Approach 1:

Regulation under Subtitle C

- Listed as a “special waste subject to Subtitle C”
- Subject to “cradle to grave” Subtitle C requirements:
 - General facility requirements, including location restrictions
 - Groundwater monitoring and corrective action
 - Storage requirements
 - Closure and post-closure care
 - Financial assurance
 - Permitting

Approach 1: Regulation under Subtitle C (Continued)

- New or adjusted requirements:
 - Single composite liner
 - 5 years for surface impoundments to comply with requirements; no requirement for annual dredging
 - Structural stability requirements for surface impoundments
 - **Existing landfills** must install groundwater monitoring within 1 year of effective date of rule, but do not need to install composite liners
 - **New landfills** or lateral expansions of existing landfills must install composite liners and groundwater monitoring before landfill begins operation
 - **Surface impoundments** must meet LDRs and liner requirements within 5 years of effective date of rule or close within an additional 2 years
 - LDR requirements have the practical effect of phasing out surface impoundments

Approach 2:

Regulation under Subtitle D

- CCRs would remain classified as a “non-hazardous” waste
- Requirements are self-implementing
- National minimum criteria governing facilities disposing of CCRs
- Many of the engineering requirements are very similar to the Subtitle C approach, e.g., groundwater monitoring, liner and structural stability requirements
- Owner/operator required to:
 - Obtain certifications by independent professional engineers/minimum qualification requirements for those who make certifications
 - Document how various standards are met. Must be kept in the operating record and the State notified.
 - Maintain a web site available to the public that contains the documentation that the standard is met.

Key Differences C vs D

	SUBTITLE C	SUBTITLE D
Effective Date	Timing will vary from state to state, as each state must adopt the rule individually-can take 1 – 2 years or more	Six months after final rule is promulgated for most provisions.
Enforcement	State and Federal enforcement	Enforcement through citizen suits; States can act as citizens.
Corrective Action	Monitored by authorized States and EPA	Self-implementing
Financial Assurance	Yes	Considering subsequent rule using CERCLA 108 (b) Authority
Permit Issuance	Federal requirement for permit issuance by States (or EPA)	No
Requirements for Storage, Including Containers, Tanks, and Containment Buildings	Yes	No
Surface Impoundments Built Before Rule is Finalized	Remove solids and meet land disposal restrictions; retrofit with a liner within five years of effective date. Would effectively phase out use of existing surface impoundments	Must remove solids and retrofit with a composite liner or cease receiving CCRs within 5 years of effective date and close the unit
Surface Impoundments Built After Rule is Finalized	Must meet Land Disposal Restrictions and liner requirements. Would effectively phase out use of new surface impoundments.	Must install composite liners. No Land Disposal Restrictions
Landfills Built Before Rule is Finalized	No liner requirements, but require groundwater monitoring	No liner requirements, but require groundwater monitoring
Landfills Built After Rule is Finalized	Liner requirements and groundwater monitoring	Liner requirements and groundwater monitoring
Requirements for Closure and Post-Closure Care	Yes; monitored by States and EPA	Yes; self-implementing

Costs of Regulation

- EPA has estimated regulatory costs and regulatory benefits (groundwater protection avoided cancer cases, avoided future cleanup costs, increased beneficial use) for the next 50 years
 - Subtitle C (assuming no reduction in beneficial uses):
 - Cost: up to \$1.5 billion / year
 - Benefit: up to \$7.4 billion / year
 - Subtitle D (assuming no reduction in beneficial uses):
 - Cost: up to \$587 million / year
 - Benefit: up to \$3 billion / year
 - If the full regulatory costs of Subtitle C were passed on from utility companies to consumers, our estimates indicate that electricity prices nationwide could increase by 0.8%, on average.
 - For Subtitle D, the potential full cost pass-thru nationwide increase in electricity prices is estimated at 0.2%.

How does the proposal address beneficial use?

- EPA supports and encourages safe and environmentally appropriate beneficial uses
- Beneficial use – using CCRs as ingredients or substitutes in mainly industrial products and activities
- Examples of beneficial uses include: cement, asphalt, and concrete. These are encapsulated uses.
- Under all regulatory options, EPA is proposing to retain the Bevill exemption for beneficial uses
- However, concerns with specific uses have been raised to EPA: the recent and ongoing research, and that the composition of CCRs are likely changing as a result of more aggressive air pollution controls and therefore, EPA is requesting comment, particularly as it relates to unencapsulated uses of CCRs.

How does the proposal address beneficial use?

- EPA does not consider placement in sand and gravel pits or large scale fill operations to be beneficial use
 - Would be subject to disposal management standards
 - Includes filling of old quarries and gravel pits, or landscaping with large quantities of CCRs. This includes the BBBS Sand and Gravel quarries in Gambrills, MD, where coal ash was filled in two sand and gravel quarries, resulting in contamination of local drinking wells.
 - EPA did not consider this use to be “beneficial” in our May 2000 Regulatory Determination and does not consider it beneficial use in the current proposal.

How does the proposal address beneficial use?

- In summary
 - EPA continues to believe that properly performed beneficial use is environmentally preferable outcome for CCRs.
 - Concerned about regulatory decisions that limit beneficial uses
 - Thus, not proposing to modify the existing Bevill exemption
 - Also, recognize disparity in quality of state beneficial use programs, uncertainty in the future characteristics of CCRs, and uncertainty about risks associated with some beneficial uses.
 - Also understand the potential environmental benefits of CCRs as substitutes for other materials
 - Nevertheless, requesting comment on whether certain beneficial uses to present risks to human health and the environment and should be addressed differently in the final rule.



Seeking Comment

- EPA is seeking comment in three main areas
 1. regulatory options,
 2. beneficial use, and
 3. supporting analyses.



Seeking Comment

1. On all aspects of proposed regulatory options:

- Subtitle C vs. Subtitle D
- The specific elements of each alternative
- Other alternative regulatory approaches



Seeking Comment

2. Beneficial Uses:

- Information on new beneficial uses
- Specific incentives that EPA could provide to increase beneficial use.
- Information and data on the best means for estimating future quantities and changes in the beneficial use of CCRs.
- Information and data on beneficial uses that may present a risk to human health and the environment.

Seeking Comment

2. Beneficial Uses (cont.)

Stigma associated with Subtitle C:

- Concrete data on actual instances where “stigma” has adversely affected beneficial use of CCRs
- Specific recommendations to reduce any stigma effects
- Impact on state beneficial use programs and recommended measures to mitigate these effects.
- Data and information on liability issues related to a Subtitle C regulation.
- Methods and data for use in estimating stigma effects for purposes of conducting regulatory impact analysis.

Seeking Comment

3. EPA's supporting analyses:

- Extent of existing damage cases
- Extent of risks posed by mismanagement of CCRs
- Adequacy of state programs to ensure proper management of CCRs; requesting details on how the states currently regulate CCRs
- Risk and economic analyses

If you wish to comment on the proposed rule

- ❑ Official comment period ends on November 19, 2010.
- ❑ On the web: www.regulations.gov, search Docket ID No. EPA-HQ-RCRA-2009-0640.
- ❑ Email: rcra-docket@epa.gov, subject: Attention Docket ID No. EPA-HQ-RCRA-2009-0640.
- ❑ Fax: 202-566-0272, Attention Docket ID No. EPA-HQ-RCRA-2009-0640.
- ❑ Mail: Include two copies –
 - Hazardous Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities Docket, Attention Docket ID No., **EPA-HQ-RCRA-2009-0640**, Environmental Protection Agency, Mailcode: 28221T, 1200 Pennsylvania Ave., NW., Washington, DC 20460.
 - Hand Delivery Address: EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20460.