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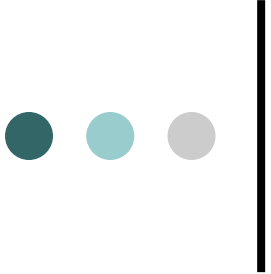
# EPA's Proposed Rule for Coal Combustion Residuals

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Materials Recovery & Waste Management  
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U.S. Environmental Protection Agency

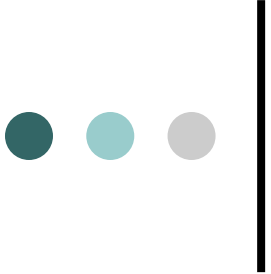
August 12, 2010





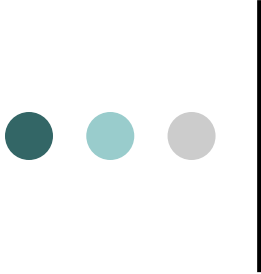
# Purpose of this Webinar

- Provide a summary of the co-proposal
- Highlight key issues we are requesting comment on
- Give tips on how to comment effectively
- Answer basic clarifying questions about the proposed regulatory requirements
- NOTE: this webinar is not a forum to take official comment



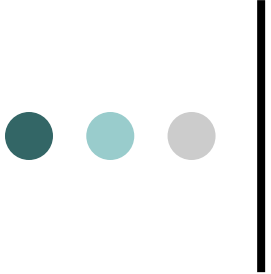
# Questions?

- If you have a question at any time during the webinar, simply type it in using the question feature.
- We are taking questions that will assist you in understanding the proposal and the topics on which we are soliciting comments and additional information.
- We will answer as many clarifying questions as time allows.



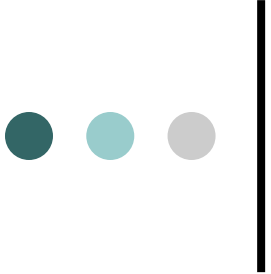
# The Basics

- 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: 34 % (46 million tons) landfilled
  - 22% (29.4 million tons) disposed of in surface impoundments
  - nearly 37% (50.1 million tons) beneficially used
  - nearly 8% (10.5 million tons) placed in mines
  - 75 % of impoundments are greater than 25 years old; 10% greater than 50 years old
  - Approximately 300 CCR landfills and 584 surface impoundments in use at approximately 495 coal-fired power plants



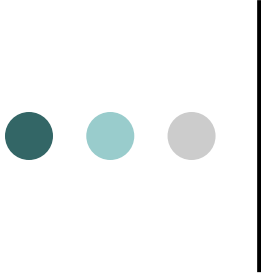
# CCRs – The Proposal

- On June 21, 2010, EPA proposed **2 approaches** for regulating disposal of CCRs under the Resource Conservation and Recovery Act (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.



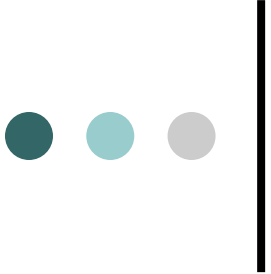
# CCRs – The Proposal

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



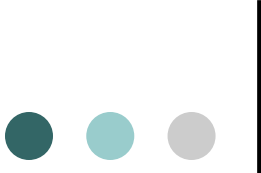
# Regulation under Subtitle C

- Listed as a “special waste subject to subtitle C” – S001.
- Subject to existing Subtitle C requirements, e.g., generator, transporter, permitting, ground water monitoring, corrective action, and financial assurance. LDRs and treatment standards apply.
  - Single composite liner
  - [5 years for surface impoundments to comply with requirements; no requirement for annual dredging]
  - Structural Stability Requirements
  - **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



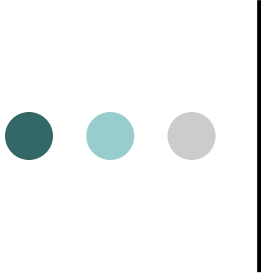
# Regulation under Subtitle D

- CCRs would remain classified as a “non-hazardous” waste.
- National minimum criteria governing facilities disposing of CCRs.
- Many of the engineering requirements are very similar to the Subtitle C option, e.g., groundwater monitoring, liner and structural stability requirements.
- Requirements are self implementing.
- 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.



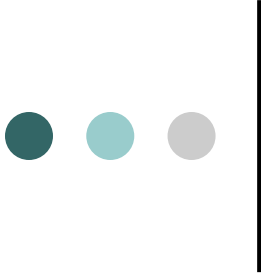
# Key Differences C vs D

|                                                                                         | SUBTITLE C                                                                                                                                                                     | SUBTITLE D                                                                                                                         |
|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Effective Date</b>                                                                   | 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.                                                                    |
| <b>Enforcement</b>                                                                      | State and Federal enforcement                                                                                                                                                  | Enforcement through citizen suits; States can act as citizens.                                                                     |
| <b>Corrective Action</b>                                                                | Monitored by authorized States and EPA                                                                                                                                         | Self-implementing                                                                                                                  |
| <b>Financial Assurance</b>                                                              | Yes                                                                                                                                                                            | Considering subsequent rule using CERCLA 108 (b) Authority                                                                         |
| <b>Permit Issuance</b>                                                                  | Federal requirement for permit issuance by States (or EPA)                                                                                                                     | No                                                                                                                                 |
| <b>Requirements for Storage, Including Containers, Tanks, and Containment Buildings</b> | Yes                                                                                                                                                                            | No                                                                                                                                 |
| <b>Surface Impoundments Built Before Rule is Finalized</b>                              | 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 |
| <b>Surface Impoundments Built After Rule is Finalized</b>                               | 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                                                                       |
| <b>Landfills Built Before Rule is Finalized</b>                                         | No liner requirements, but require groundwater monitoring                                                                                                                      | No liner requirements, but require groundwater monitoring                                                                          |
| <b>Landfills Built After Rule is Finalized</b>                                          | Liner requirements and groundwater monitoring                                                                                                                                  | Liner requirements and groundwater monitoring                                                                                      |
| <b>Requirements for Closure and Post-Closure Care</b>                                   | Yes; monitored by States and EPA                                                                                                                                               | Yes; self-implementing                                                                                                             |



# Other Regulatory Options Discussed in Preamble

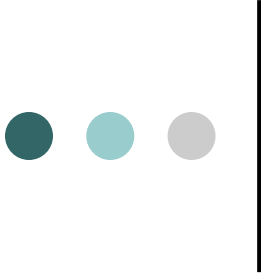
- **D Prime**
  - Existing surface impoundments allowed to operate until end of useful life
  - Other requirements same as the D proposal.
- **Wet-handled** CCRs regulated under Subtitle C; **Dry-handled** under Subtitle D.
- **Issue Subtitle C regulations**, that would be effective only if a State **does not**:
  - Develop enforceable Subtitle D regulations and submit to EPA for approval.
  - If a state fails to develop a program within 2 years or EPA did not approve within 1 year, the federal Subtitle C rule is effective in that state.
- **“Cement Kiln Dust” Approach**
  - Establish detailed management standards under Subtitle D.
  - If CCR management was in egregious violation of the requirements, the CCRs would be considered “special wastes” under Subtitle C.
- Rely on NPDES Permits for structural integrity requirements.



# Costs of Regulation

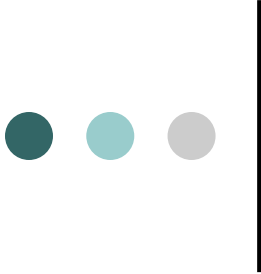
EPA has estimated regulatory costs and regulatory benefits (*groundwater protection avoided cancer cases, avoided future cleanup costs, increased beneficial use*) for the next 50 years.

- 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%.



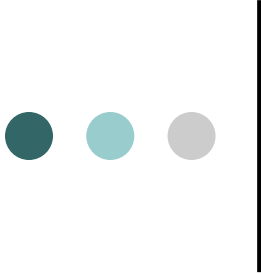
# Environmental Justice and the CCR Proposal

- EPA collected demographic data on minority and low-income populations by zip code.
- This data was compared to the demographic data surrounding coal-fired power plants.
- We estimate that 256 of the 495 plants (52%) had surrounding low-income population percentages exceeding their state low-income percentages.
- We also estimate that 138 of the 495 plants (28%) had surrounding minority population percentages which exceeded their state minority percentages.



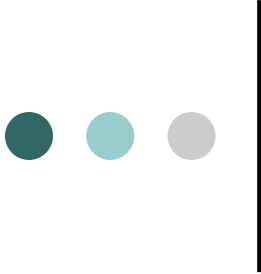
# How does the proposal address beneficial use?

- 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 result of more aggressive air pollution controls and therefore, EPA is requesting comment, particularly as it relates to unencapsulated uses of CCR.



# How does the proposal address beneficial use?

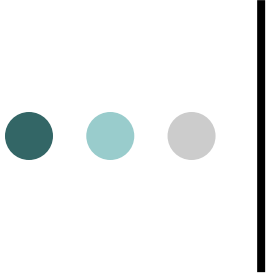
- EPA does not consider placement in sand and gravel pits or large scale fill operations to be beneficial use.
  - Would be subject to disposal management standards.
  - Includes filling of old quarries and gravel pits, or landscaping with large quantities of CCRs. This includes the BBBS Sand and Gravel 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?

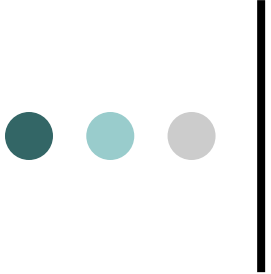
## In Summary

- 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

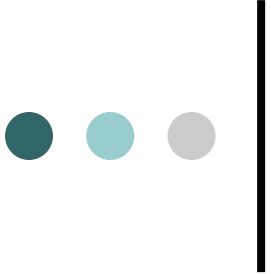
- For the Docket, we are seeking comment in three main areas
  1. our regulatory options,
  2. beneficial use, and
  3. our supporting analyses.



# Seeking Comment

## 1. On all aspects of our proposed regulatory options:

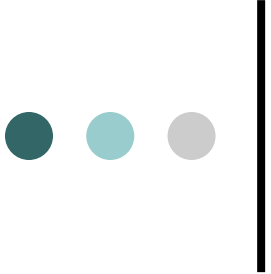
- Subtitle C vs Subtitle D
- The specific elements of each alternative
- Other alternative regulatory approaches



# Seeking Comment

## 2. Beneficial Uses:

- Information on new beneficial uses of CCRs that are coming into the marketplace.
- Specific incentives that EPA could provide that would increase the amount of CCRs that are beneficially used.
- 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.

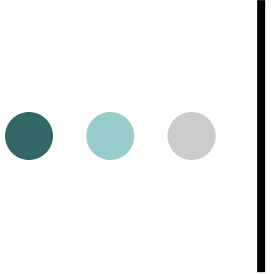


# Seeking Comment

## 2. Beneficial Uses (cont.)

### Stigma:

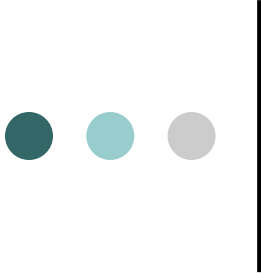
- If EPA were to regulate CCRs as a “special waste subject to subtitle C” and stigma turns out to be an issue, what could EPA do that could reduce any stigmatic impact that might arise. We are seeking concrete data on actual instances where “stigma” has adversely affected beneficial use of CCRs and the causes of these adverse effects.
- Specific information on how stigma could cause procedural difficulties for state beneficial use programs, and measures EPA might adopt to mitigate these effects.
- For those who believe that regulating CCRs under subtitle C would raise liability issues, describe the types of liability and the basis/data/information on which these claims are made.
- Ideas on how to best estimate stigma effects for purposes of conducting regulatory impact analyses and provide data or methods to assist EPA in this effort.



# Seeking Comment

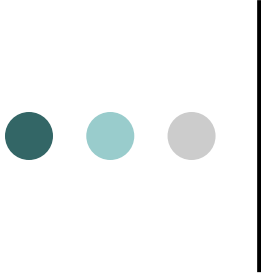
## 3. EPA's supporting analyses:

- 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 to the Docket

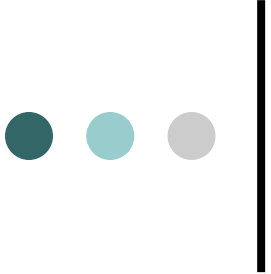
- Official comment period ends on September 20, 2010.
- On the web: [www.regulations.gov](http://www.regulations.gov), search Docket ID No. EPA-HQ-RCRA-2009-0640.
- Email: [rcra-docket@epa.gov](mailto:rcra-docket@epa.gov), subject: Attention Docket ID No. EPA-HQ-RCRA-2009-0640.
- Fax: 202-566-0272, Attention 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.



# Public Hearings

To preregister for a public hearing and guarantee a 3 minute slot to speak, visit <http://epa.gov/waste/nonhaz/industrial/special/fossil/ccr-rule/ccr-hearing.htm>. We will also accept written comments at the hearings.

- **Arlington, VA – August 30, 2010**, Hyatt Regency, 2799 Jefferson Davis Highway, Arlington, VA 22202, Phone: (703) 418-1234, [www.crystalcity.hyatt.com](http://www.crystalcity.hyatt.com).
- **Denver, CO – September 2, 2010**, Grand Hyatt, 1750 Welton Street, Denver, CO 80202, Phone: (303) 295-1234, [www.granddenver.hyatt.com](http://www.granddenver.hyatt.com).
- **Dallas, TX – September 8, 2010**, Hyatt Regency Dallas, 300 Reunion Boulevard, Dallas, TX 75207, Phone: (214) 651-1234, [www.dallasregency.hyatt.com](http://www.dallasregency.hyatt.com).
- **Charlotte, NC – September 14, 2010**, Holiday Inn Charlotte (Airport), 2707 Little Rock Road, Charlotte, NC 28214, Phone: (704) 394-4301, [www.hicharlotteairport.com](http://www.hicharlotteairport.com).
- **Chicago, IL – September 16, 2010**, Hilton Chicago, 720 South Michigan Avenue, Chicago, IL 60605, Phone: (312) 922-4400, [http://www.chicagohilton.com/hotels\\_hiltonchicago.aspx](http://www.chicagohilton.com/hotels_hiltonchicago.aspx).
- **Pittsburgh, PA – September 21, 2010**, Omni Hotel, 530 William Penn Place, Pittsburgh, PA 15219, <http://www.omnihotels.com/FindAHotel/PittsburghWilliamPenn.aspx>
- **Louisville, KY – September 28, 2010**, Seelbach Hilton, 500 Fourth Street, Louisville, KY 40202-2518, <http://www.seelbachhilton.com/>



# Questions?

Please type your questions into the questions feature – we will answer as many clarifying questions as we can before 3 p.m.

Frequent Questions on the proposal are available at

<http://www.epa.gov/epawaste/nonhaz/industrial/special/fossil/ccr-rule/ccrfaq.htm>