Upcoming Regulations and Current Trends for Power Plant Waste Streams

Coal Ash Ponds and Wastewater Treatment Issues
McIlvaine Company Hot Topic Hour
Thursday May 2, 2013

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Overview

- Coal Combustion Residuals Rulemaking
- Effluent Limitations Guidelines Rulemaking
- Citizen Actions
CCR Rulemaking: Two Co-Proposed Regulatory Options

- “Special Waste” under Subtitle C
- Solid Waste under Subtitle D

Both regulatory proposals attempt to accomplish the same goals; the major differences involve implementation, enforcement, and costs.
RCRA Hazardous Waste Subtitle C

- Special Waste v. Hazardous Waste
- Typical RCRA “Cradle to Grave” program
- Retroactive
- *Effectively, no new surface impoundments*
- Existing surface impoundments
  - All existing surface impoundments that have not been closed in accordance with RCRA performance standards are subject to all Subtitle C closure requirements (e.g. obtain a Part A permit and comply with interim status regulations)
RCRA Hazardous Waste Subtitle C

• Existing Surface Impoundments (Section 268.14)
  – Active
    • Must cease receiving CCRs within 5 years from the effective date.
    • Must close within 2 years after cessation.
  – Inactive
    • Must close within 2 years from the effective date.

*The preamble and Section 264.1300 suggest that inactive existing facilities are subject to the proposal.*
RCRA Hazardous Waste Subtitle D

- CCRs continue to be exempt from hazardous waste designation.
- Beneficial uses not subject to regulation.
- No “Cradle to Grave” regulation.
- Only covers disposal.
- Many of the performance criteria established under the Subtitle C co-proposal apply.
- Existing surface impoundments without liners would have to retrofit or close within 5 years.
RCRA Hazardous Waste Subtitle D

• Establishes national criteria “to ensure safe disposal of CCRs”
• Self implementing
  – However, states may adopt conforming regulations.
• State lead on enforcement; citizens suits.
Proposed ELG Rulemaking

- Signed on April 19, 2013.
- Amends the steam electric effluent guidelines and standards under the Clean Water Act.
- Applies to nuclear, coal, oil, and natural gas-fired power plants that generate more than 50 megawatts of power.
- Regulates certain waste streams for the first time.
<table>
<thead>
<tr>
<th>Waste Stream</th>
<th>Current</th>
<th>Proposed</th>
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<tbody>
<tr>
<td>Low-volume waste</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Fly-ash transport</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Bottom ash transport</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>Once-through cooling</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Cooling tower blowdown</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Coal pile runoff</td>
<td>✓</td>
<td></td>
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<tr>
<td>Metal chemical cleaning wastes</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Metal non-chemical cleaning wastes</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td>FGD waste water</td>
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<td>✓</td>
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<tr>
<td>Flue gas mercury control waste water</td>
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<td>✓</td>
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<td>Residual leachate from landfills and surface impoundments</td>
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<td>✓</td>
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<tr>
<td>Fuel gasification</td>
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<td>✓</td>
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</tbody>
</table>
Proposed ELG Rulemaking

- Sets very stringent effluent limitations for those waste streams that will continue to have a discharge (e.g. Hg, Se, Ar, and N-N)
- In many cases, applies “zero discharge” as Best Available Technology.
Proposed ELG Rulemaking

• USEPA states that: a pending risk assessment for the CCR rule + the ELG rulemaking could = strong support for regulating CCR disposal under RCRA Subtitle D.

• USEPA is under consent decree to take final action by May 22, 2014.

• Phased into NPDES permits between 2017 and 2022.
Best Management Practices

- Structural integrity inspections
  - Weekly inspections
- Corrective action
  - Stringent notification requirements
Coordination of the Two Rules

• USEPA seeks to coordinate the rules.

• Scope differs:
  – Both regulate the disposal of CCW to and from ash ponds
  – Only the CCR rule regulates the disposal of CCRs in landfills.

• In evaluating how to coordinate, USEPA is focusing on surface impoundments so facilities can evaluate whether it makes business sense to continue to operate or close any surface impoundment.
State Legal Battles: Citizen Actions

- Illinois
- North Carolina
- South Carolina
- Tennessee
- Alabama
- Montana
- Georgia
- Pennsylvania
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