Coal Combustion Residual Rulemaking Feedback

December 1, 2020

Waste & Materials Management Program
Public Feedback Meeting

• Background on federal rule and state permit program goals
  – Kate Strom Hiorns, Recycling and Solid Waste Section Chief

• Presentation of rule concepts
  – Valerie Joosten, Lead Engineer
  – Joe Lourigan, Lead Hydrogeologist
  – Phil Fauble, Beneficial Use Coordinator

• Open forum for rule feedback

• Next steps
Federal Rule

• 2015: EPA published a final rule to regulate the disposal of CCR as solid waste under subtitle D of the Resource Conservation and Recovery Act (RCRA), 40 CFR Parts 257 and 261

• 2016: Water Infrastructure Improvements for the Nation (WIIN) Act, Section 2301 allowed states to develop a CCR permit program, if approved by EPA
  – As protective as federal rule

• 2018 and beyond: EPA signed additional rule amendments with some actions still pending
WA-17-18

- Rule will amend portions of chs. NR 500 – 520 to address federal rules for the regulation of CCR landfills

- Rule will not address CCR surface impoundments – they will remain under federal regulations
WA-17-18 Goals

- CCR landfills are currently regulated under both federal rule and Wisconsin rule
  - Work with landfill operators, other stakeholders and EPA
  - Operators can apply one set of rules and interact with one regulatory agency
  - DNR staff inspections and oversight
Meeting Logistics (Zoom)

Written Comments
1. Click Chat
2. Submit your written comment or question
Meeting Logistics (Zoom)

Verbal Comments
1. Click Participants
2. Raise Hand
Meeting Logistics (Zoom)

3. When your name is called, the *Meeting Host* will **unmute** you.
Meeting Logistics (Zoom)

4. You should receive a pop-up “**The host would like you to unmute**”: **Click**
Meeting Logistics (Zoom)

5. When you’ve finished speaking, the Host will re-mute you
Conceptual regulatory approach

• Integrate federal requirements within existing WI regulations
  – All existing regulations continue to apply
  – Portions of existing regulations at least as protective as federal rule
  – Adding new sections to WI regs as needed to satisfy federal requirements

• Seek EPA approval of WI regulatory program (existing and new rules) –
  – Permit new and existing landfills under a State permit program
Conceptual permitting approach

- CCR landfills would be required to modify the plan of operation
  - Submittal of updated plans to comply with new WI CCR requirements
  - Include locational criteria check
  - Requires department review and approval
  - Consideration for public involvement
## Rules potentially affected

<table>
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<tr>
<th>NR Code</th>
<th>Chapter</th>
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<td>500</td>
<td>General requirements (definitions and P.E. certification)</td>
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<td>504</td>
<td>Location, performance, design and construction criteria</td>
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<td>506</td>
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<td>507</td>
<td>Environmental monitoring</td>
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<td>508</td>
<td>Responses when a groundwater standard is attained or exceeded</td>
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<td>509 &amp; 512</td>
<td>Initial site reports and feasibility reports (to be determined)</td>
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<td>514</td>
<td>Plan of operation</td>
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<td>516</td>
<td>Construction documentation (to be determined)</td>
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<tr>
<td>520</td>
<td>Fees and financial responsibility</td>
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257.80 Air Criteria

• New sections in NR 506 and 514
  – Annual report for fugitive dust control
  – Fugitive dust control plan within plan of operation

• Differences (proposed)
  – Set deadline for annual report
  – “Periodic” assessments – minimum weekly
257.81 Run-on and run-off controls

- New sections in NR 504 and 514
  - System in accordance with NR 504.09(1)(f) and (g)
  - Incorporate additional federal requirements
  - Run-on and run-off plan within plan of operation

- Differences
  - Run-off from active portion handled as leachate per WI rule
257.84 Inspection requirements

- New section in NR 506
  - Annual inspections by professional engineer
  - Annual inspection report
- Differences (proposed)
  - Set deadline for inspections and annual report
257.102 Criteria for closure

• New sections in NR 504, 506 and 514
  – Notification procedures, initiation of closure, completion of closure, deed notation and closure by CCR removal
  – Closure plan within plan of operation
  – Plan amendments (modifications)
  – Final cover design in accordance with NR 504.07
  – Alternative designs comply with NR 504.10 and federal requirements
257.102 Criteria for closure

• Differences
  – WI final cover requires grading layer, 2-foot clay layer, geomembrane, 2.5-foot drainage and rooting zone, 6-inch topsoil
  – GCL and 2-foot soil barrier layer may replace clay layer

Note: Federal requirements specify a composite cover with a max. permeability, an 18-inch infiltration layer and 6-inches of topsoil. A GCL final cover would need to meet requirements for an alternative cover design.
257.70 Design criteria

• Design criteria applies to liner design for new CCR landfills and lateral expansions

• Proposing a new section in NR 504
  – Composite liner in accordance with NR 504.06(1) – (3)
    or a GCL/soil barrier layer in accordance with NR 504.06(7)
  – A leachate collection system in accordance with NR 504.06(5)
  – Alternate designs required to comply with NR 504.10 and federal rule.

• Differences
  – WI composite liner includes 4-feet of clay vs. 2-feet under the federal requirement.
257.105 Recordkeeping requirements

- New section in NR 506
  - Similar to MSW landfills (NR 506.17)
- Differences
  - WI timeframe is operating life plus 40 years
Incorporating Federal CCR Rule Groundwater Monitoring and Compliance Requirements into Wisconsin’s Rules:

Goal:

➢ Combine NR 507 and NR 508 requirements with federal requirements to create unified monitoring system under the oversight of the Wisconsin DNR
  - Avoid Overlapping Regulations
  - Maintain Use of Wisconsin’s Groundwater Protection Standards under NR 140
  - Enable continued use of existing wells
Monitoring Well Networks

- Retain existing NR 507 monitoring well system with the addition of designated Subtitle D CCR wells.

- Sub D CCR wells – minimum of 1 upgradient, 3 downgradient per federal rules.

- Sub D CCR wells will be placed to monitor formations that meet the fed definition of aquifer.
Example CCR Landfill

Current conditions:

• 15 DNR monitoring wells (nested), 5 wells installed for compliance with federal CCR rules (federal aquifer)
• DNR wells designed to monitor the entire site (including closed units) and all saturated formations

Proposed combined rule:

• 15 existing DNR wells regulated under NR 507
• 5 federal wells retained and designated as Sub D CCR wells
• Combined monitoring network subject to DNR oversight with some additional requirements for Sub D CCR wells
• Combined network exceeds minimal federal rules
Groundwater Sampling

- Sub D CCR wells will not be field filtered.

- Detection and assessment monitoring parameters and frequencies will match the federal rule.

Establishment of water quality background concentrations

- Background will be established through well-specific Alternative Concentration Limits (ACLs) per NR 140 instead of statistical comparisons to the water quality of upgradient wells under the federal rules.
Point of Standards Application

- Design Management Zone (DMZ) of 0 ft for Sub D CCR wells – Preventative Action Limits (PALs), ACLs and Enforcement Standards (ESs) for Sub D CCR wells would apply at the limits of waste.

Assessment Monitoring Requirements

- Assessment monitoring at Sub D CCR wells automatic if PAL or ACL attainment or exceedance instead of statistically significant increase method under federal rule.
Response Actions

- Propose use of NR 140 water quality standards for all monitoring wells – PAL triggers certain response options, ES triggers other potential responses.
- Implementation of NR 140 response options are subject to DNR review and approval.
- Remedial actions at all wells would follow NR 700 series code (remediation), if DNR requires remedial action.
- Additional remedial actions, incorporated into NR 508 and in accordance with federal rules, may be required if the exceedences involve Sub D CCR wells.
Divergence From Federal CCR Rules

- Use of well-specific Alternative Concentration Limits (ACLs) instead of statistical comparison to upgradient wells to establish background concentrations.

- Use of NR 140 standards to trigger response options (PAL response options and ES response options).

- DNR review and approval of response and remedial actions.

- Remediation to the extent technically and economically feasible under NR 140 and NR 700.
Comments/Feedback

- Use Chat
- Raise hand
WA-17-18 Next Steps

- Rule language continues to be developed
- Economic impact comment period and rule language available in early 2021
- Public hearing on rule language expected mid-2021

- Provide comments to Kate Strom Hiorns at kathrynm.stromhiorns@wisconsin.gov by December 15
Thank you!