

REINHOLD ENVIRONMENTAL Ltd.



**2018 APC & Wastewater Round Table
& Expo Presentation**

July 23 & 24, 2018 in Lexington, KY / Hosted by East Kentucky Power Coop

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Regulatory Update

Presented at the APC RoundTable

Laura Faletto & Brian Cole
July 2018

AECOM

Outline

- Introduction
- Air Regulations
- Waste Regulations
- Water Regulations



EPA

- July 5, EPA Administrator Scott Pruitt resigned
- Andrew Wheeler is now the acting EPA Administrator. His remarks to EPA staff:

“We cannot forget that the United States is the gold standard worldwide for environmental protection. Since 1970, emissions of the six criteria air pollutants regulated under the National Ambient Air Quality Standards established through the Clean Air Act have dropped 73 percent, while the U.S. economy has grown...”



Power Generating Industry

– Recent quote from Bill Johnson, CEO of TVA to *Power* magazine

“The past **5** years have had more change and uncertainty than the **35** before them together.”



Coal

- Despite the president's effort to reduce regulatory burden on the coal industry, coal-fired facilities continue to be retired



Coal

- There are forces in play independent of regulation:
 - Low natural gas prices
 - Lower prices of renewable energy technologies
 - Customer demand for renewable energy
 - Lower electric demand due to increased efficiencies
 - Age of coal-fired facilities
-

Air Regulation



Air - Status of Repeal Efforts

- The March 2017 Presidential Executive Order directed the EPA to review and revise or rescind regulations of GHG (predominately CO₂) emissions from power plants



Air - Status of Repeal Efforts

– The main target of this order was the Clean Power Plan

- The CPP was intended to regulate CO₂ from electric generating units
- First national standards that address carbon emissions from power plants
- State-specific CO₂ reduction goals



Air - Status of Repeal Efforts

- The EPA now contends the CPP exceeded the EPA's statutory authority
 - The CPP CO₂ emission guidelines expected measures to be applied beyond the 'fenceline' of the electricity generator
 - EPA argued the health benefits of the CPP rule were overstated because ancillary benefits from areas not specifically regulated by CPP were counted
-

Air - Status of Repeal Efforts

- The EPA is planning to repeal CPP
- However, there is an ongoing challenge against the CPP from a group of 20+ states (West Virginia v EPA)
- What happens if the court rules before EPA finalizes the proposed repeal of CPP?



Air - Status of CPP Repeal Efforts

- If the Court upholds key parts of the CPP (because parts of rule *do not* overstep authority) before EPA can repeal the CPP (because rule *do* overstep authority), then the EPA effort to repeal CPP will be undercut
 - EPA has asked the Court to hold off on ruling
-

Air - CPP Repeal without Replacement Option

- If EPA repeals CPP without having a replacement rule
 - Litigation from states and non-governmental organizations can be expected
 - The next administration could propose its own rules to regulate GHG from power generators

 - These two outcomes are negative for the current administration, therefore it is likely a replacement rule will be proposed at the time of CPP repeal
-

Air - CPP Repeal with Replacement Option

- If EPA repeals CPP with having a replacement rule – what could the replacement rule look like?
 - Most likely narrow in scope
 - Less aggressive GHG reduction targets
 - Site-specific requirements (there will be no expectation for efforts beyond the fenceline)
-

Air – Recent Actions

- Actual-to-Project-Actual Applicability Test Memo
 - Project Emission Accounting Memo
 - One-in-Always-in Memo
 - Source Aggregation Guidance
 - Ambient Air Guidance
 - PM_{2.5} and Ozone SIL Guidance
 - Project Emissions Accounting Rule
 - Project Aggregation Reconsideration
 - Routine Maintenance, Repair and Replacement
-

Air – Really Recent Actions

- In May, EPA Administrator issued memo to reform the NAAQS review process.
 - Memo commits EPA to begin the next review of the ozone NAAQS to meet the CAA deadline to finalize revisions by October 2020
 - Under the changes, EPA will ask its advisory committees to consider and advise on how enforcement affects the economy, health and welfare, energy and society, and will seek input from state and local government, Indian tribes and others on the pollution limits.
-

Air – Really Recent Actions

- In May, EPA proposed to retain, without revision, the existing primary NAAQS for sulfur dioxide of 75 parts per billion.
-

Air – Really Recent Actions

- In June, EPA proposed to determine that the 2016 Cross State Air Pollution Rule (CSAPR) Update satisfies “good neighbor” obligations in the 2008 National Ambient Air Quality Standards (NAAQS) for ground-level ozone.
 - EPA modeling predicts that by 2023 there will be no remaining nonattainment or maintenance areas for the 2008 Ozone NAAQS in the CSAPR Update region (most of the eastern US).
 - EPA and 20 states would have no obligation to establish additional requirements for sources to further reduce transported ozone pollution to meet the 2008 ozone NAAQS
-

Air – Really Recent Actions

- In June, EPA Redesignated the Greenville-Spartanburg area in South Carolina from unclassifiable to attainment/unclassifiable for the 1997 PM2.5 standard

Air – Really Recent Actions

- In July, EPA (PA) approved Oklahoma's clean-air plan related to transporting air pollution from fine particulate matter across state lines.
 - EPA determined that emissions from pollution sources in Oklahoma do not contribute significantly to diminished air quality in other states.
-

Air – Cross-State Air Pollution Rule Update

- The EPA issued a memo to Regional Air Division Directors to provide information on the Interstate Transport State Implementation Plan Submissions



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
RESEARCH TRIANGLE PARK, NC 27711

MAR 27 2018

OFFICE OF
AIR QUALITY PLANNING
AND STANDARDS

MEMORANDUM

SUBJECT: Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I)

FROM: Peter Tsirigotis
Director

A handwritten signature in black ink, appearing to read "P. Tsirigotis".

TO: Regional Air Division Directors, Regions 1–10

Air – Cross-State Air Pollution Rule Update

– A March 27, 2018, EPA memo specified

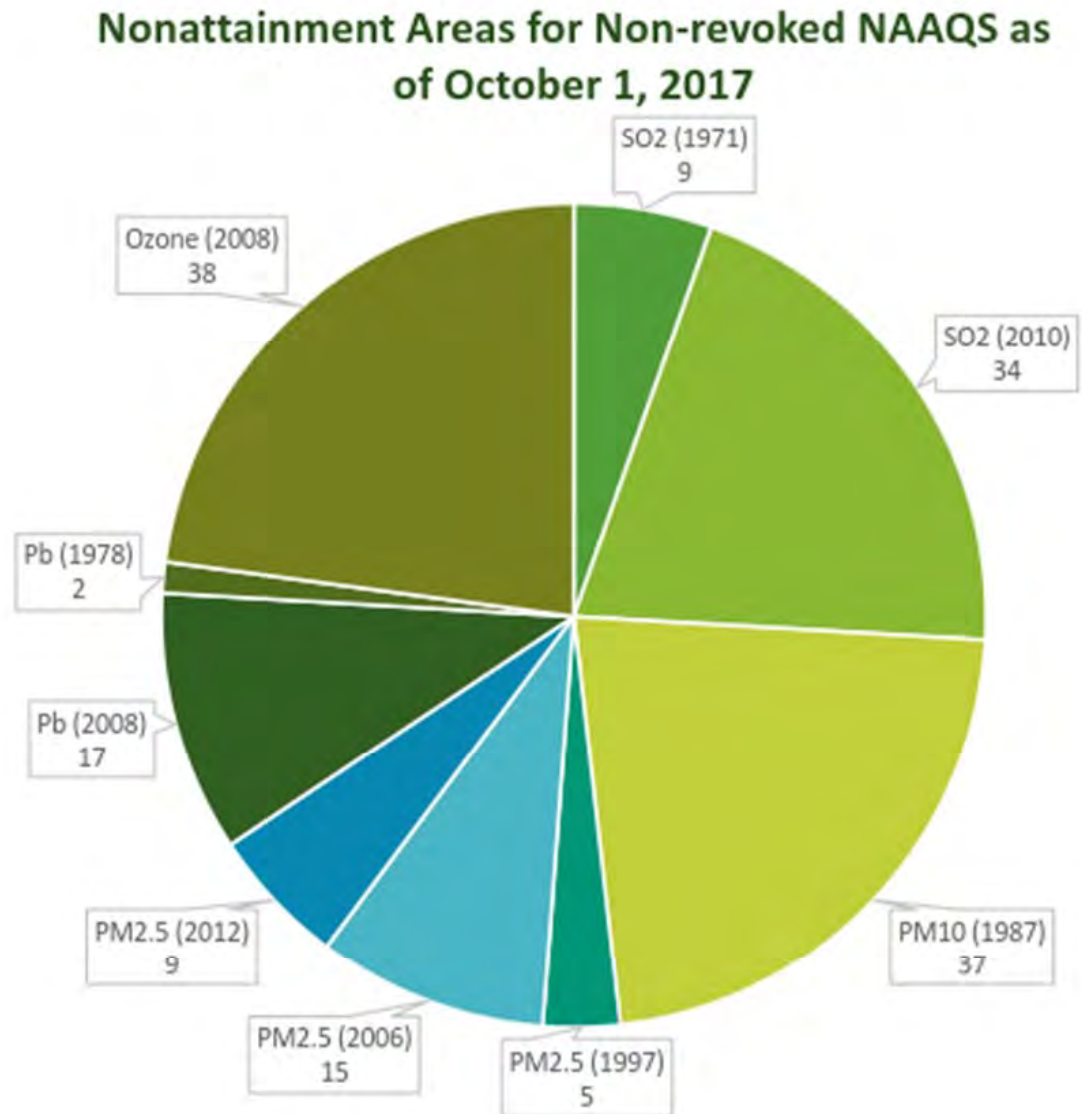
- Air quality modeling results for ozone in 2023
 - Ozone concentrations at potential nonattainment and maintenance sites for the 2015 ozone NAAQS
 - Upwind state contribution data at the maintenance sites
-

Air – Cross-State Air Pollution Rule Update

- States can use data from the memo to
 - Develop implementation plans so states do not contribute significantly to nonattainment of the 2015 ozone standards in other states
 - Complete good neighbor transport actions for the 2015 ozone NAAQS
-

Air – Cross-State Air Pollution Rule Update

- EPA has stated reducing the number of nonattainment areas is a priority goal



Air – Cross-State Air Pollution Rule Update

- States' redesignation request must meet minimum requirements
 - Demonstrate air quality has attained NAAQS
 - Demonstrate pollution reductions are due to enforceable measures
 - Develop a 10-yr maintenance plan
-

Air - Once in Always in

- In the 1990's EPA was promulgating the first national emission standards for hazardous air pollutants (NESHAPs)
 - The “Once in Always in” memo was issued in 1995 by the EPA in response to questions from the regulated community
 - Facilities that are major sources of HAP on the “first compliance date” of a relevant MACT standard are required to comply **permanently** with the MACT standard
-

Air - Once in Always in

- If a major source took a federally enforceable HAP limit **prior** to a MACT first compliance date, it would be an area source, subject only to applicable Area Source NESHAPs
 - Why is this important?
 - Area source requirements are less stringent than major source requirements
 - Some area sources are not subject to any requirements while major sources in the same industry are subject
 - Once subject to MACT, **always** subject to MACT to prevent backsliding from MACT control levels, even if potential emissions are less than major levels at some point in the future
-

Air - Once in Always in

- In 2018 new guidance issued and it supersedes the 1995 memo
 - Once in always in policy immediately withdrawn
 - Major HAP sources may become an area source when the source takes an enforceable HAP limit below major levels
 - Once the HAP limit is effective, source is no longer subject to the major source NESHAP but could be subject to an area source NESHAP
-

Air - Once in Always in

- If planning to opt out of major source NESHAP standard, consider implications of change
 - Facilities that are not major and have Title V only because of once in always in may be able to get out of Title V Permitting
 - Removing emission controls may affect non-HAP pollutants (VOC and PM) and trigger NSR permitting due to emissions increase
 - Removing emission controls may affect HAP emissions and again trigger NSR
 - Work with your state permitting authority
-

Air - Once in Always in

- How do I take a HAP limit to be an area source?
 - In Missouri – Revise Construction Permit(s)
 - Missouri prefers to revise construction permits when there is a physical change to the emission unit
 - Missouri permitting regulations are currently under review; a lower emission limit could be anticipated in a revised rule
 - St. Louis County issues permits on individual emission units and could be reopened to set HAP limits
-

Air - Once in always in

- How do I get a HAP limit to be an area source?
 - In Missouri – Revise Operating Permit
 - Convert to an Intermediate (synthetic minor) permit if both HAP and criteria pollutants can be limited to below major source thresholds
 - Revise the Part 70 Permit to limit HAP to less than 10/25 tpy if the facility remains major for non-HAP pollutants
-

Air – MATS Related Pending Legislation

- In March 2018, US House approved the SENSE bill allowing exemptions from MATS (Senate has not yet voted)
 - Power generators that burn coal refuse have stated they cannot meet the limits of MATS
 - Less stringent standards for HCl and SO₂ for power plants that burn coal refuse
 - Most coal refuse-to-energy plants are in Pennsylvania

MATS Limits	HR1119 (SENSE) Limits
New Unit 0.01 lb HCl/Mwh	New Unit 0.02 lb HCl/Mwh
Existing Unit 0.02 lb HCl/Mwh	Existing Unit 0.02 lb HCl/Mwh
New Unit 1.0 lb SO ₂ /Mwh	New Unit 1.5 lb SO ₂ /Mwh
Existing Unit 1.5 lb SO ₂ /Mwh	Existing Unit 1.5 lb SO ₂ /Mwh

Air – NSR Project Projected Actual

- In December 2017, EPA issued guidance memo on New Source Review applicability

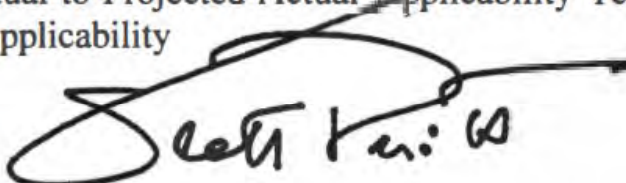
December 7, 2017

MEMORANDUM

SUBJECT: New Source Review Preconstruction Permitting Requirements: Enforceability and Use of the Actual-to-Projected-Actual Applicability Test in Determining Major Modification Applicability

FROM: E. Scott Pruitt

TO: Regional Administrators

A handwritten signature in black ink, appearing to read "E. Scott Pruitt", is written over the printed name in the "FROM:" field. The signature is stylized and includes a long horizontal stroke extending to the right.

Air – NSR Project Projected Actual

- The EPA will not second guess the operators post-project emission
 - EPA *may* pursue enforcement where a source has failed to perform a required pre-project applicability analysis
 - The court decision does not *compel* the EPA to pursue enforcement in such situations
-

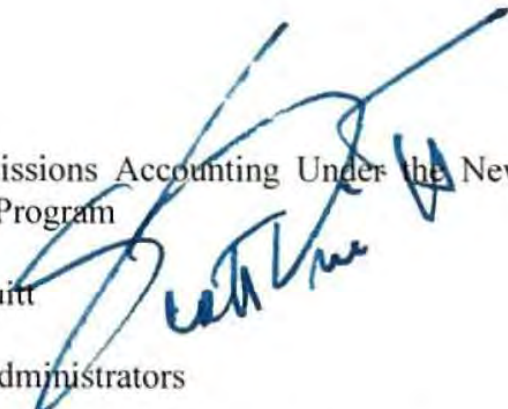
Air – NSR Project Netting

- In March 2018, EPA issued guidance memo on New Source Review pre-construction permitting at existing major stationary sources

March 13, 2018

MEMORANDUM

SUBJECT: Project Emissions Accounting Under the New Source Review Preconstruction Permitting Program

FROM: E. Scott Pruitt 

TO: Regional Administrators

In accordance with presidential priorities for streamlining regulatory permitting requirements for manufacturing, and in line with my prior recognition that “opportunities exist to simplify” the New Source Review process and thereby “achieve meaningful NSR reform,”¹ the

Air – NSR Project Netting

- Project emissions decreases can be accounted for when determining if the project by itself will result in a significant emissions increase during Step 1 of the NSR process
 - Previously the EPA interpretation was that emissions decreases could not be considered in Step 1 – EPA will no longer apply this interpretation
 - Proposed rule to codify this interpretation is expected this fall
-

Air – Expected Actions

- Reconsideration of Project Aggregation - Summer 2018
 - Ambient Air – guidance on definitions of “general public”, “access” and “building” - Spring 2018
-

CCR Rule

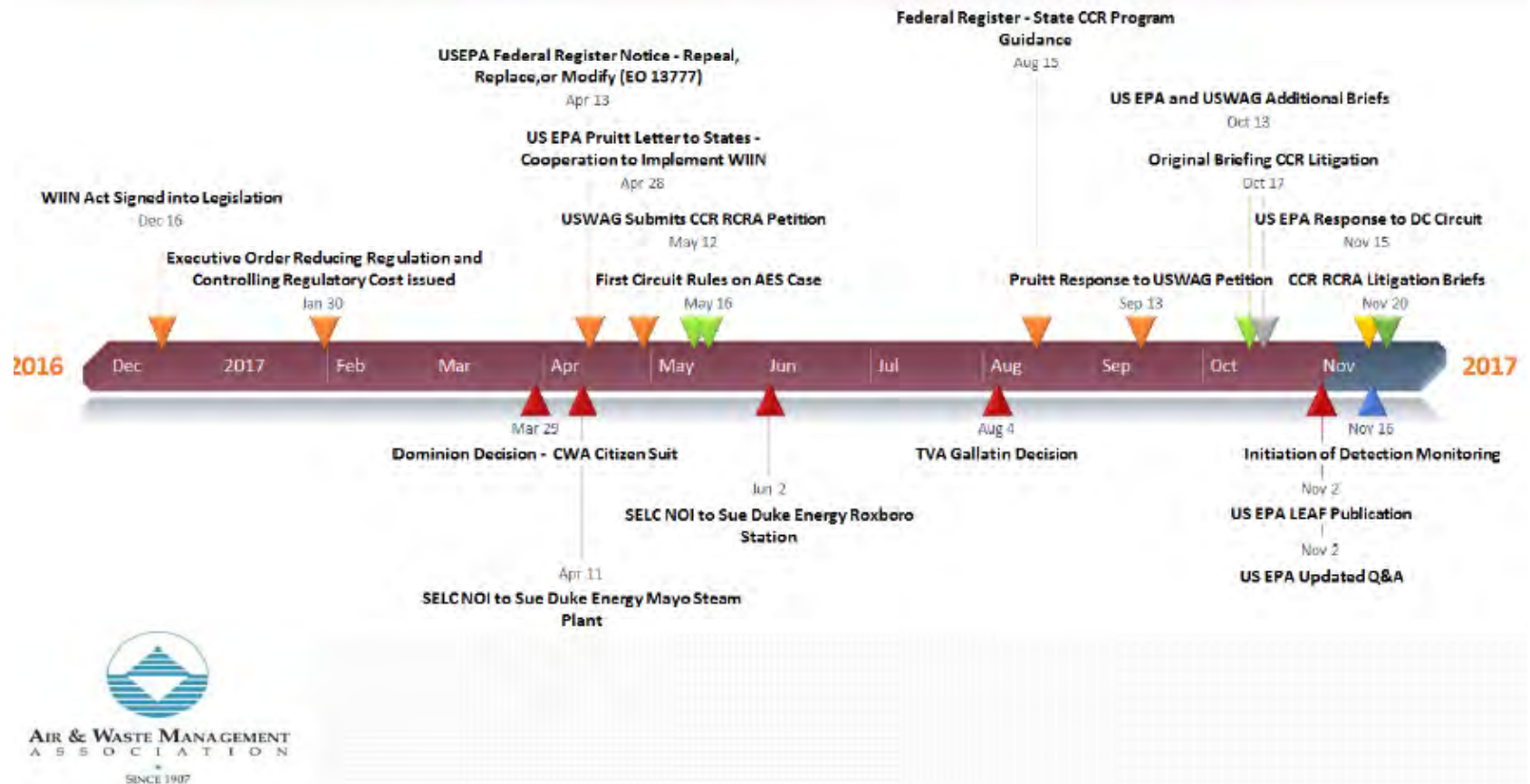


Coal Combustion Residuals Management

- The 2015 Final CCR Rule regulates the disposal of CCR as a non-hazardous solid waste under Subtitle D of RCRA
- Rule establishes criteria for determining which disposal structures could remain open and which must close



Regulatory Timeline 2016 - 2017



* AWMA info provided with permission by Harold D. Register, Jr

Coal Combustion Residuals Management

- In 2017 the rule was reconsidered as part of Executive Order 13777
- USWAG filed petition with EPA with 10 major points. Petition was approved by EPA in September 2017.
- In March 2018 EPA proposed significant changes

EPA Rampaging on Coal Ash Rule Despite Groundwater Concerns

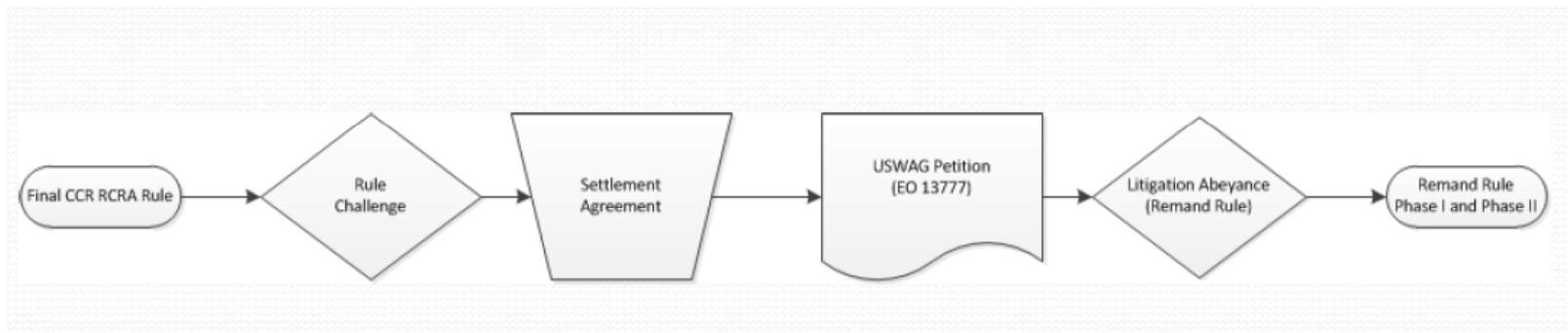
04/26/2018 | Sonal Patel

“According to the EPA, those changes are expected to save industry between \$32 million and \$100 million per year.”

-Power Magazine



Impetus behind the petition was abeyance of litigation and court-ordered Remand Rule



Litigation Status (2017)

- Utility Solid Waste Activity Group (USWAG)
 - Numerous Issues Still Unresolved
- Earth Justice
 - Inactive Surface Impoundments
 - Boron added to Appendix IV
- Beneficial Use Company
 - Issues Still Unresolved
- AES Puerto Rico
 - Favorable Court Ruling



Coal Combustion Residuals Management – Proposed Changes in WIIN Act

- After obtaining EPA approval, states can operate CCR permit programs instead of federal regulations
 - State rules must be as protective as the federal rule
 - Allow alternative risk-based groundwater protection standards for constituents that do not have established maximum contaminant levels instead of using background levels
 - Participating states can set alternative GWPS and modify corrective action remedies under certain restrictions
-

Coal Combustion Residuals Management – UPDATE

- Oklahoma is the first state to get approval for their state CCR permit program.
 - In June EPA announced it will issue final approval of Oklahoma's Coal Combustion Residuals State Permit Program
 - Enforcement authority from citizen lawsuits (as originally required by EPA's 2015 solid waste regulations for coal ash disposal) is shifted to the state.
-

Kentucky's CCR Program is in a state of flux

- Chapter 46 was intended to adopt the federal CCR Rule, with a couple minor variations
 - Judge order vacated Chapter 46 in January 2018
 - Chapter 45 is still in effect
 - Due to limited resources, agency is unable to issue permits for every CCR pond closure and new landfill prompted by the CCR Rule (CCR ponds were permits by rule under Chapter 45)
-

Remand Rule

- November 1, 2017: USEPA filed status report (pursuant to the Motion to Remand)
 - 2-Phase approach
 - PHASE 1 (REMAND RULE): Completed June 14, 2019
 - PHASE 2: Completed December 2019 (prepublication of draft by September 2018)
 - December 20, 2017 EPA submits proposed revisions to CCR regulation to the office of information and regulatory affairs (OIRA)
 - March 1, 2018 US EPA announces the Prepublication of the Remand Rule (Phase 1)
-

Coal Combustion Residuals Management

– Remand Rule Phase I Key Changes Proposed:

- Modification of “slope protection” requirements for dikes (vegetation limited to 12-inches in height and clarification of woody vegetation maintenance)
 - New criteria established for non-GW releases
 - Allowed extension of life for non-CCR wastestreams
 - Adds Boron to the list of constituents that trigger assessment monitoring and corrective action
 - Allow the use of CCR generated on site as structural fill in the construction of final cover systems for CCR ponds closing in place for cause (max 5% slope, no horizontal expansion of pond footprint)
-

Coal Combustion Residuals Management – Remand Rule Phase II Key Changes Proposed:

Phase II Rulemaking

Outstanding Issues from Litigation and Petition:

- Industry Position on Inactive Surface Impoundments
- Definition of Beneficial Reuse Limit at 12,400 Tons
- Disposition of CCR Piles Destined for Beneficial Reuse
- Consideration of Cost under Alternative Closure
- Management of Legacy Ponds
- Functional Equivalents of 2' Clay Liner
- Future Use of Unlined Surface Impoundments
- Public Participation; Posting Documents to Website



AIR & WASTE MANAGEMENT
ASSOCIATION

SINCE 1907

Hot off the Press...

Pre-Publication Copy * Unofficial Version

PRE-PUBLICATION COPY NOTICE:

The EPA Administrator signed the following final rule on July 17, 2018:

**HAZARDOUS AND SOLID WASTE MANAGEMENT SYSTEM:
DISPOSAL OF COAL COMBUSTION RESIDUALS FROM
ELECTRIC UTILITIES; AMENDMENTS TO THE NATIONAL
MINIMUM CRITERIA (PHASE ONE, PART ONE); FINAL RULE
[RIN 2050-AG88; FRL-9973-31-OLEM]**

This is a **pre-publication** version of the final rule that EPA is submitting for publication in the *Federal Register*. While the Agency has taken steps to ensure the accuracy of this Internet version of the final rule, it is not the official version of the final rule. Please refer to the official version of the final rule that will appear in a forthcoming *Federal Register* publication. Once the official version of the final rule publishes in the *Federal Register*, the pre-publication version of the final rule that appears on the website will be replaced with a link to the final rule that appears in the *Federal Register* publication.

Coal Combustion Residuals Management – UPDATE

- This is a "skinny rule," one that addresses CCR rule deadlines and only some of the substantive issues proposed in March.
 - EPA will address any issues remaining from the proposal in Phase I Part 2 and Phase II.
-

Key Impact of the “Skinny Rule” (Phase I, Part 1)

- Deadline to stop placing CCR in will be extended 18 months (to October 2020) for ponds closing for 2 triggers:
 - SSI over GW standard for unlined pond
 - Failure to meet aquifer separation requirement (5' buffer)
 - The agency selected the date to coordinate with the revised compliance date for the ELG requirements. The agency anticipates completing the ELGs rulemaking by December 2019 and providing nine months from the rule's likely publication in January 2020 would be sufficient for facilities to make informed decisions to meet the requirements of both rules. The 18-month period also corresponds with the lower end amount of time estimated to be needed to find alternative capacity for non-CCR wate streams.
 - All LR demonstrations for existing units are still due October 2018
-

Additional impacts of Skinny Rule

- New MCLs for Co, Li, Mo and Pb
 - If background is higher than MCL, background becomes the MCL
 - Possible time extension for assessment of corrective measures
 - Certifications may be made by Participating State Director instead of QPE
-

Effluent Limitations Guidelines Rule



Effluent Limitations Guidelines Rule – Steam Electric Power Generating

- In 2015 the ELG established new or additional requirements for coal-fired power plants' wastewater streams
- Prohibited off-site discharges of fly ash and bottom ash transport water and flue-gas mercury control wastewater



Effluent Limitations Guidelines Rule – Steam Electric Power Generating

- Treatment limits for metals including mercury, arsenic, lead, chromium, cadmium and selenium
- The earliest original compliance date is November 1, 2018



Effluent Limitations Guidelines Rule – Steam Electric Power Generating

- In 2017 EPA paused future compliance dates and will reconsider the 2015 rule
 - May 2018 EPA announced it will potentially revise effluent limitations and pretreatment standards for bottom ash transport water and flue gas desulfurization waste water
 - Proposed rule by December 2018
 - Final rule by December 2019
 - Earliest compliance date is now November 2020
-

Regulations

- Environmental regulations of various media (air, solid waste and water) are interconnected
- Requirements need to be considered together when planning a compliance strategy



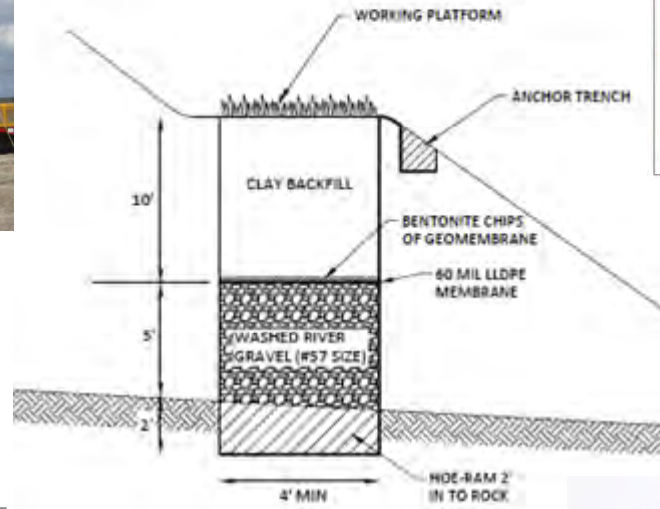
Non-Groundwater Releases



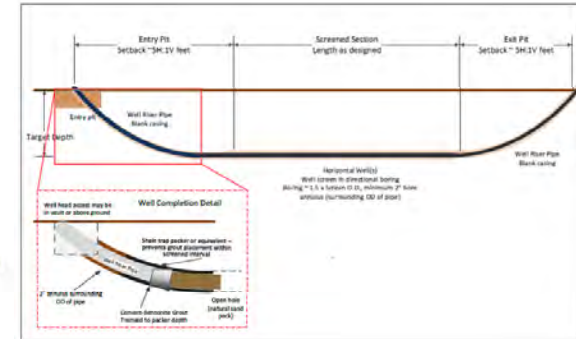
Cutoff options



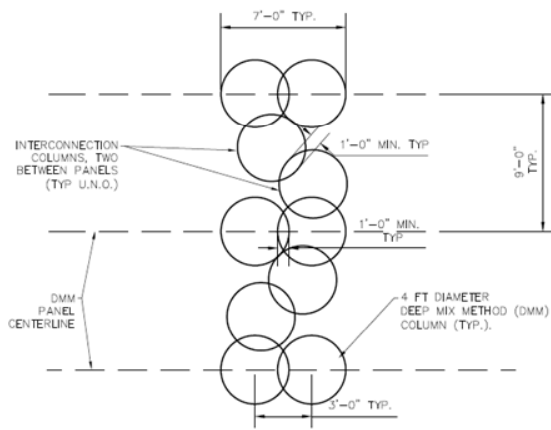
Curtain Wall



Cutoff-Collection Trench



Horizontal well

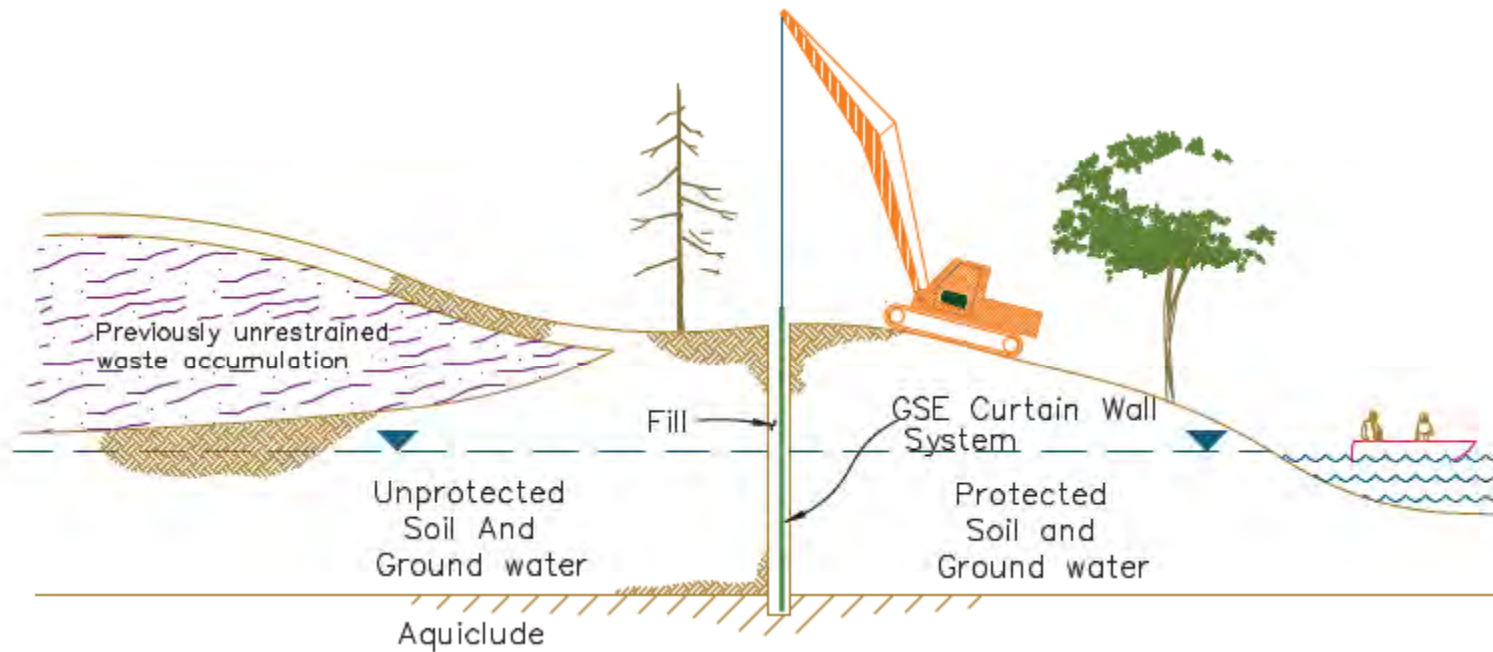


Deep soil mixing



Collection Trench

Curtain Wall



GSE Curtain Wall Systems Stop Migration

Not to scale