

CIBO  
Energy and Environmental Meeting  
Dec. 2-3, 2014  
Arlington, VA

***How Industrial Boiler Owners are Coping with the Regulatory Cloud***

Or

The Lack of Regulatory Clarity on Applicability at the Federal Level

and

What will the States do?

and

What will be the Permit Writers Decision Process

# December 19, 2014

- EPA Administrator is to signed the final rule regarding the Management of Coal Combustion Residuals for EGUs (?)
- EPA has submitted the draft of the Final Rule to OMB for approval
- OMB has 90 days to complete its review. If OMB takes the full 90 days, EPA will miss the December 19, 2014 date.

# Areas to be covered

- **EPA**
  - **Proposed rule making on Coal Combustion Byproducts and Residuals**
  - **Proposed Effluent Limitation Guideline for Discharges from Steam Electric Generating Facilities**
  - **Tenorm**
- **What will the States do?**
  - **In the past, States have regulated coal ash byproducts and residual from all sources not just EGUs, will they continue to do so or limit their regulations to EGUs, not Non-EGUs?**
- **Permit writers**
  - **How will water quality and NPDES Permits be handled (i.e., Best Professional Judgment)?**
- **Overview, Issues and Concerns of a “D” rule**
- **Industry (CIBO) concerns**

# RCRA - Coal Ash

- Applicability

# Environmental Protection Agency

- **40 CFR Parts 257, 261, 264 et al.**
- **Hazardous and Solid Waste Management System; Identification and Listing of Special Wastes; Disposal of Coal Combustion Residuals From Electric Utilities; Proposed Rule**
- **Published Federal Register – June 21, 2010**

# EPA's Summary Statement

- The Environmental Protection Agency (EPA or Agency) is proposing to regulate for the first time, coal combustion residuals (CCRs) under the Resource Conservation and Recovery Act (RCRA) to address the risks from the disposal of CCRs generated from the combustion of coal at *electric utilities and independent power producers.*

# APPLICABILITY - Preamble

- The Preamble states that the proposed rule is applicable to Coal Combustion Residuals From **Electric Utilities**
- The Preamble suggests that the proposed rule is not applicable to
  - Beneficial Use of Coal Combustion Products
  - Minefilling of Coal Combustion Residuals
  - Industrial Facilities that are not classified as Electric Utilities

# Concerns relating to Applicability

- As EPA proposed basically 4-options to regulate the disposal of coal combustion residuals via Subtitle C or D.
- Since the actual language of the regulation will dictate its applicability, from the perspective of Non-EGU Industrials and from the perspective of Companies utilizing coal ash beneficially in coal mine land reclamation, a significant amount of uncertainty is present!



# The Uncertainty?????

- Need to look at the applicability language in the Subtitle C and Subtitle D Proposals related to CCRs

# Subtitle C Applicability

## 261.4 Exclusions (Existing rule)

- **(b)** *Solid wastes which are not hazardous wastes.* The following solid wastes are not hazardous wastes:
  - (4) Fly ash waste, bottom ash waste, slag waste, and flue gas emission control waste, generated primarily from the combustion of coal or other fossil fuels, except as provided by §266.112 of this chapter for facilities that burn or process hazardous waste.

# Section 261.4 Exclusions - Proposed

- (4)(i) Fly ash, bottom ash, boiler slag, and flue gas emission control wastes, generated primarily from the combustion of coal for the purpose of generating electricity by the electric power sector if the fly ash, bottom ash, boiler slag, and flue gas emission control wastes are beneficially used **or placed in minefilling operations**. Beneficial Use of Coal Combustion Products (CCPs) means the use of CCPs that provides a functional benefit; replaces the use of an alternative material, conserving natural resources that would otherwise need to be obtained through practices such as extraction; and meets relevant product specifications and regulatory standards (where these are available). CCPs that are used in excess quantities, placed as fill in sand and gravel pits, or used in large scale fill projects, such as for restructuring the landscape, are not considered beneficial uses.
- (ii) Fly ash, bottom ash, boiler slag, and flue gas emission control wastes generated primarily from the combustion of coal for the purpose of generating electricity by facilities outside of the electric power sector (*i.e.*, not included in NAICS code 221112).
- (iii) Fly ash, bottom ash, boiler slag, and flue gas emission control wastes, generated primarily from the combustion of fossil fuels other than coal, for the purpose of generating electricity, except as provided by § 266.112 of this chapter for facilities that burn or process hazardous waste.

# Subpart F—Special Wastes Subject to Subtitle C Regulations § 261.50 General

- (b) For the purposes of the S001 listing, the electric power sector is defined as **electricity-only and combined-heat-and-power (CHP)** plants whose primary business is to sell electricity, or electricity and heat, **to the public**; *i.e.*, NAICS code 221112 plants. Coal combustion residuals are defined to include fly ash, bottom ash, boiler slag, and flue gas desulfurization materials generated by the electric utility industry. This listing does not apply to coal combustion residuals that are:
  - (1) Uniquely associated wastes as defined in paragraph (c) of this section;
  - (2) Beneficially used as defined in paragraph (d) of this section;
  - (3) Placed in minefilling operations;
  - (4) Generated by facilities outside the electric power sector (*i.e.*, not included in NAICS code 22112); or
  - (5) Generated from clean-up activities that are conducted as part of a state or federally required clean-up that commenced prior to the effective date of this rule.

## § 261.50 (Continued)

- (c) Uniquely associated wastes are low-volume wastes other than those defined as coal combustion residuals in paragraph (a) of this section that are related to the coal combustion process. Examples of uniquely associated wastes are precipitation runoff from coal storage piles at the facility, waste coal or coal mill rejects that are not of sufficient quality to burn as fuel, and wastes from cleaning the boilers used to generate steam.
- (d) Beneficial Use of Coal Combustion Products (CCPs) means the use of CCPs that provides a functional benefit; replaces the use of an alternative material, conserving natural resources that would otherwise need to be obtained through practices such as extraction; and meets relevant product specifications and regulatory standards (where these are available). CCPs that are used in excess quantities, placed as fill in sand and gravel pits, or used in large scale fill projects, such as for restructuring the landscape, are not considered beneficial uses.

# Subtitle C Applicability Language

- Identifies that CCRs from EGUs are covered by the proposed rule
- ***States that beneficial use or mine is not covered by the proposed rule***
- ***CCRs from non-EGU Industrials are not covered by the proposed rule***

# Subtitle D

- The language in Subtitle D version of the rule, specifically Part 257.1 Scope and Purpose and Part 257.40 Applicability does not exclude any source of CCRs but could capture CCRs from most all sources. Thus, the language in Subtitle D would be applicable to Industrial Facilities.



## § 257.40 Disposal standards for owners/operators of CCR landfills and CCR surface impoundments. (Proposed)

(a) *Applicability.* (1) The requirements of this subpart apply to **owners or operators** of CCR landfills and CCR surface impoundments. Any CCR landfill and surface impoundment continues to be subject to the requirements in §§ 257.3–1, 257.3–2, and 257.3–3.

# Definition of Coal Combustion Wastes

- *Coal Combustion Residuals (CCRs)* means fly ash, bottom ash, boiler slag, and flue gas desulfurization materials. CCRs are also known as coal combustion wastes (CCWs) and fossil fuel combustion (FFC) wastes.

# The Question: Applicable or Not Applicable

- The language related to the Subtitle C approaches provides for the exclusions identified in the Preamble
- Whereas, the language related to the Subtitle D approaches does not provide exclusions for beneficial use, minefilling, and industrial facilities.

# Effluent Limitation Guidelines

Proposed rule

# ELG for Steam Electric Generating Units

- ELG designed to address impoundments using construction guidelines (MSHA)
- Propose the Elimination wet ash handling systems
- The discharge limits dealing with Mercury, Arsenic, and Selenium from leachate associate with coal ash!

(Note-This aspect of the rule is tied to the RCRA Ash Rule and its applicability.)

# States and Permit Writers

- States have regulated coal ash but from all sources!
  - Will they limit the impact of EPA's rule, when final, to coal ash from EGUs?
- States will have to integrated the ELG (when finalized) into their NPDES Programs
  - How will a permit writer address coal ash from Non-EGU Industrials? (BPJ?)
  - How will they address wet handling systems and impoundments?

# Overview, Issues, and Concerns of a “D” rule

Since many are believing that the final coal combustion residual rule will be under Subtitle D, there are several points to be made if it is!

# § 257.1 Scope and purpose

(a) \* \* \* Unless otherwise provided, the criteria §§ 257.51 through 257.101 are adopted for determining which CCR Landfills and CCR Surface impoundments pose a reasonable probability of adverse effects on health or the environment under sections 1008(a)(3) and 4004(a) of the Act.

(1) Facilities failing to satisfy either the criteria in §§ 257.1 through 257.4 or §§ 257.5 through 257.30 or §§ 257.51 through 257.101 are considered **open dumps**, which are prohibited under section 4005 of the Act.

(2) Practices failing to satisfy either the criteria in §§ 257.1 through 257.4 or §§ 257.5 through 257.30 or §§ 257.51 through 257.101 constitute **open dumping**, which is prohibited under section 4005 of the Act.



# § 257.1 Scope and purpose (continued)

(b) \* \* \* \* \*

(c) \* \* \*

(12) Except as otherwise provided in subpart C, the criteria in subpart A of this part do not apply to CCR landfills and CCR surface impoundments subject to subpart C of this part.

§ 257.40 Disposal standards for owners/operators of CCR landfills and CCR surface impoundments.

(a) *Applicability.* (1) The requirements of this subpart apply to **owners or operators** of CCR landfills and CCR surface impoundments. Any CCR landfill and surface impoundment continues to be subject to the requirements in §§ 257.3–1 [Floodplains], 257.3–2 [Endangered Species], and 257.3–3 [Surface water]

(2) Except as otherwise specified in this Subpart, all of the requirements in this Subpart are applicable [date 180 days after the effective date of the final rule].

# Owners and Operators of CCR Landfills and Impoundments

There is no specific language that this regulation is limited to Coal Combustion Residuals from EGUs!

Now look at the definitions associated with this Section.

§ 257.40 Disposal standards for owners/operators of CCR landfills and CCR  
surface  
impoundments

(b) *Definitions.* As used in this subpart:

*Coal Combustion Residuals (CCRs)* means fly ash, bottom ash, boiler slag, and flue gas desulfurization materials. CCRs are also known as coal combustion wastes (CCWs) and fossil fuel combustion (FFC) wastes.

*CCR landfill* means a disposal facility or part of a facility where CCRs are placed in or on land and which is not a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit. For purposes of this subpart, landfills also include piles, sand and gravel pits, quarries, and/or large scale fill operations. Sites that are excavated so that more coal ash can be used as fill are also considered CCR landfills.

# CCR Definition

Defines the products (fly ash, bottom ash, boiler slag, and flue gas desulfurization materials) associated with combustion of fossil fuel.

It does not define fossil fuel

It does not limited the source of the facility combusting fossil fuel

# Definitions continues

*CCR surface impoundment or impoundment* means a facility or part of a facility which is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials), which is designed to hold an accumulation of CCRs containing free liquids, and which is not an injection well. Examples of CCR surface impoundments are holding, storage, settling, and aeration pits, ponds, and lagoons. CCR surface impoundments are used to receive CCRs that have been sluiced (flushed or mixed with water to facilitate movement), or wastes from wet air pollution control devices, often in addition to other solid wastes

*Existing CCR landfill* means a CCR landfill which was in operation on, or for which construction commenced prior to [the effective date of the final rule]. A CCR landfill has commenced construction if the owner or operator has obtained the Federal, State and local approvals or permits necessary to begin physical construction; and either:

- (1) A continuous on-site, physical construction program has begun; or
- (2) The owner or operator has entered into contractual obligations—which cannot be cancelled or modified without substantial loss—for physical construction of the CCR landfill to be completed within a reasonable time.

# Definitions continues

*Existing CCR surface impoundment* means a surface impoundment which was in operation on, or for which construction commenced prior to [the effective date of the final rule]. A CCR surface impoundment has commenced construction if the owner or operator has obtained the Federal, State and local approvals or permits necessary to begin physical construction; and either

- (1) A continuous on-site, physical construction program has begun; or
- (2) The owner or operator has entered into contractual obligations—which can not be cancelled or modified without substantial loss—for physical construction of the CCR surface impoundment to be completed within a reasonable time.

# Citizens Suits

- The proposed rule encouraged the use of Citizen Suits push the States to enforce the rule.
- Unless the rule provides more specificity regarding applicability, the rule is set up for endless challenges regarding enforcement by 3<sup>rd</sup> Parties.



# Key areas of concern to be reviewed under a Subtitle D rule

- Installation of Groundwater Monitoring Systems
- If water quality problems are detected, than a remediation program will need to be implemented,
- The push for dry systems
- Time limits for bringing sites into compliance
- 30 year responsibility for site maintenance and monitoring after closure
- Transition to liners
- Compliance with other Environmental Laws and Regulations

# CIBO's Concerns

- The State will implement the final EPA rules on CCRs no matter what Sector generates them as many States have done.
- The Preamble language to the rule, the economic analysis, and reviews clearly provide analysis of EGU generated CCRs and does not address minefilling, beneficial uses, and language excluding non-EGU Industrials through out the preamble.
- While it is believed that EPA has excluded Industrial from its the Regulatory Impact Analysis including its Economic Analysis. If the proposed Regulations were applied to the Industrial Sector, it would demonstrate a significant impact on those Sectors. EPA MUST CLEARLY IDENTIFY IN THEIR FINAL RULES THE NON-EGU INDUSTRIAL EXCLUSIONS, THE EXCLUSION FOR MINE FILLING, AND BENEFICIAL USE!
- A concern that EPA will attempt to define “an Open Dump” relative to CCRs in the rule while they did not seek comments on the issue as it proposed to include a minor change to Section
- That the States will also attempt to utilize portions of the ELGs for Steam Generating EGUs relating to CCR management and effluents to non-EGU Industrial who generate CCRs!

# CIBO Concerns

- EPA's Radiation Protection website:

<http://www.epa.gov/radiation/tenorm/coalandcoalash.html>

- Website discusses Tenorm for Coal Fly Ash, Bottom Ash and Boiler Slag
  - Burning coal in boilers to create steam for power generation and ***industrial applications*** produces a number of combustion residuals. Naturally radioactive materials that were in the coal mostly end up in fly ash, bottom ash and boiler slag
  - These residuals are called TENORM--Technologically Enhanced Naturally Occurring Radioactive Materials--because burning removes the coal's organic constituents, concentrating the trace amounts of naturally occurring radionuclides

THE CONCERN IS EPA DISCUSSES COAL FLY ASH, BOTTOM ASH AND BOILER SLAG AN INCLUDES NON EGU INDUSTRIAL APPLICATIONS IN THE DISCUSSION AND WHAT ARE THEY PLANNING (IF ANYTHING)!

# CIBO Concern

- What rules will OSMRE establish for beneficial use of coal ash in mine land reclamation?
- How will the States respond to these rules?

# CIBO

- EPA hopefully is regulating CCRs under Subtitle D not C
- The final regulations should not be applicable to Non-EGU Industrials; mine-filling, and beneficial uses of CCRs and clearly stated in applicability section.
- The States should work with the Non-EGU Industrials to develop appropriate regulations covering CCRs that they produce.
- This States should work with the Non-EGU Industrials to develop appropriate regulations would address water related issues