

National Enforcement and Compliance Initiative Protecting Communities from Coal Ash Contamination

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EPA Finds Significant Noncompliance with the RCRA Coal Ash Disposal Regulations

This Enforcement Alert highlights important compliance issues regarding the Coal Combustion Residuals (also referred to as coal ash or CCR) Rule, which was created under the Resource Conservation and Recovery Act. This Alert focuses on several specific regulatory requirements and highlights recently concluded enforcement matters.

Detected Widespread Noncompliance

EPA initiated numerous facility assessments and inspections to determine compliance with regulatory requirements such as groundwater monitoring, corrective action implementation, and disposal unit closure. These assessments detected widespread noncompliance with important CCR Rule requirements. EPA made coal ash contamination a national priority this year. (See highlight box on this page.) As of November 2023, the Agency has already finalized two settlement agreements to address detected noncompliance, as described later in this document.



Photo 1: Land Placement of Coal Ash
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Specific Areas of Concern for Compliance Assessment and Enforcement

The CCR Rule was promulgated to promote the safe management and effective cleanup of coal ash. One of the key programmatic goals of the CCR Rule is to ensure that the manner in which coal ash disposal units are closed will ensure that the long-term (which in most cases means permanent) disposition of the coal ash will not adversely impact human health and the environment, particularly groundwater. Groundwater contamination at coal ash disposal facilities is a significant concern.

National Enforcement and Compliance Initiative

EPA has been monitoring compliance with the coal ash regulations since Congress provided EPA the authority to do so in 2016. These requirements are currently the subject of a National Enforcement and Compliance Initiative (NECI). Through the NECI, EPA is increasing its compliance and enforcement activities to ensure companies are properly handling coal ash, appropriately addressing releases, and protecting communities from the impact of coal ash contamination. More information is available on the Agency's [NECI web page](#).

Approximately 150 facilities have detected groundwater contamination from metals and other inorganic compounds released through coal ash disposal and EPA believes that number will continue to increase.

The coal ash disposal program is premised upon the well-understood principle that groundwater resources must be protected regardless of the current use or status of those resources. This is even more true as the effects of climate change put unsustainable pressure on existing groundwater throughout the country. To this end, the regulations allow either closure by removal of all coal ash, or closure with coal ash remaining in the unit, both of which have associated performance standards that must be met to ensure no further releases of coal ash and coal ash contaminants from the unit, including into groundwater. The coal ash regulations do not mandate a particular closure option; rather, each facility is provided flexibility to choose an appropriate closure option that meets applicable and relevant performance standards.

EPA has detected the following types of noncompliance related to closure and groundwater remediation:

- **Closure by Removal of All Coal Ash**

- Failure to make an adequate assessment that all coal ash has been removed;
- Failure to assess and address all areas, including groundwater, that may have been affected by a release of coal ash or its constituents.

- **Closure with Coal Ash Remaining in the Unit**

- Failure to prepare and post an adequate closure plan that addresses how the performance standards will be achieved;
- Failure to remove all liquids in the unit;
- Failure to implement measures to prevent future infiltration of liquids regardless of the source or direction of the infiltration;
- Failure to implement measures to prevent future collection and containment of liquids;
- Failure to implement measures to prevent releases of coal ash and contaminated leachate to groundwater.

- **Groundwater Monitoring Efforts**

- Failure to adequately justify and support alternative contamination source demonstrations;
- Failure to properly consider well data using same wells comparisons (intrawell) rather than comparison across separate wells (interwell);
- Failure to establish an adequate groundwater monitoring network, including installation of an insufficient number of wells and deficient well spacing coverage.



Photo 2: Slurried Coal Ash Being Discharged to a Management Unit
Credit: U.S. EPA

▪ Remedy Selection

- Failure to adequately consider the regulatory criteria in development of the assessment of corrective measures;
- Failure to justify delays in implementation of corrective measures;
- Failure to adequately justify the selection of corrective measures (e.g., selection and reliance on monitored natural attenuation as a groundwater remedy without technical support that legitimate attenuation mechanisms are likely to be present).



Photo 3: *Typical Coal Ash Surface Impoundment Used for Storage and Disposal of Coal Ash: Surface impoundments can be quite large, with some units reaching upwards of 500 acres.*
Credit: U.S.. EPA

Overview of Concluded Settlement Agreements

In 2022, EPA finalized settlement agreements with facilities addressing numerous aspects of coal ash noncompliance which are highlighted below.

Public Service Company of Colorado Comanche Station, Pueblo, Colorado

On May 20, 2022, EPA finalized a settlement agreement with the Public Service Company of Colorado's ("PSCo") Comanche power station in Pueblo, Colorado.

In the agreement, EPA alleged that PSCo did not meet certain requirements of the CCR Rule, including:

- Failure to monitor groundwater under the facility and prepare related reports;
- Failure to conduct statistical analysis of groundwater data and establish groundwater background contaminant concentrations;
- Failure to cease using a coal ash surface impoundment after the applicable "cease receipt" of waste date; and
- Failure to post required documents on a publicly accessible internet site.

The settlement agreement commits PSCo to address groundwater contamination issues and to ensure the proper closure of coal ash surface impoundments under RCRA, as well as pay a civil penalty of \$925,000.

Evergy Tecumseh Energy Center, Topeka, Kansas

On November 7, 2022, EPA finalized a settlement agreement with Evergy, Inc., to address alleged violations at its Tecumseh Energy Center facility in Topeka, Kansas. In the agreement, EPA alleged the following violations:

- Failure to adequately prepare annual groundwater monitoring and corrective action report;
- Failure to comply with groundwater monitoring requirements;
- Failure to comply with groundwater sampling and analysis requirements;
- Failure to adequately complete the assessment monitoring program; and
- Failure to comply with closure and post-closure requirements.

The settlement agreement commits Evergy to re-assess groundwater monitoring data and revise and enhance groundwater monitoring efforts through additional well installation at both the surface impoundment and the landfill, as well as pay a civil penalty of \$120,000.

More Information on Coal Ash and the Coal Combustion Residuals Program, including the regulations and the WIIN Act, which amended RCRA to provide EPA additional responsibilities and authority regarding the Program, can be found on EPA's [Coal Ash \(Coal Combustion Residuals\) website](#).

The RCRA Civil Penalty Policy Applies to Coal Ash Enforcement Cases

In 2016, when Congress authorized EPA to take enforcement actions related to CCR rule violations, Congress applied penalty provisions from the RCRA statute that are the same penalty provisions that apply to the RCRA hazardous waste program. These penalty provisions are, in large part, the foundation for the RCRA Civil Penalty Policy that was developed originally for the hazardous waste program. The Penalty Policy sets out a penalty assessment framework that allows for consideration of all levels of potential for harm and the full range of deviations from compliance with any given requirement. The Policy framework is not premised upon presumptions that are linked to the hazardous waste program. Therefore, the Agency will continue to use the Policy for penalty assessment in CCR enforcement matters. The Agency's confirmation of this was set out in the [Application of the RCRA Civil Penalty Policy to RCRA Coal Combustion Residuals Program Enforcement Actions](#) (1/4/2023) and [Revisions to the 1990 RCRA Civil Penalty Policy](#) (6/23/2023).

Disclaimer: This Enforcement Alert addresses select provisions of EPA regulatory requirements with a focus on the Resource Conservation and Recovery Act using plain language. Nothing in this Enforcement Alert is meant to replace or revise any EPA regulatory provision or any other part of the Code of Federal Regulations, the Federal Register or the Resource Conservation and Recovery Act or any currently valid EPA policy or guidance document.