

Frequently Asked Questions About Coal Ash Basin Closures

What is coal ash?

Coal ash, also referred to as a coal combustion residual (CCR), is a byproduct of burning coal to make electricity. Coal contains naturally occurring minerals that are not burned in the process of making electricity. After the coal is burned, the amount of ash that remains is generally about 10 percent. Ash is made up mostly of silica, similar to sand, and other naturally occurring materials, including iron, calcium, and aluminum. Coal ash may also contain trace amounts of other substances that occur naturally in coal and soils, such as arsenic, cadmium, lead, mercury, and selenium.

Is coal ash hazardous?

The U.S. Environmental Protection Agency's (EPA's) extensive studies, which span more than 20 years, have repeatedly determined that coal ash is nonhazardous and regulation as a hazardous waste is unwarranted. EPA's rules and regulations are designed to protect the environment and human health. As basins are closed, electric companies will comply with all federal, state, and local regulations.

What is a coal ash basin?

A coal ash basin, also called a CCR impoundment or a coal ash pond, is an area near a power plant where coal ash is stored.

Why are basins closing?

As the electric power industry transitions its generation fleet, some coal-based power plants are being retired. This means that coal ash basins near these power plants are no longer needed. Electric companies are beginning to close basins where coal ash is stored, in ways that put safety first, protect the environment, minimize impacts to the community, and manage costs for customers.

In April 2015, the EPA issued a national rule—the “[Disposal of Coal Combustion Residuals \(CCR\) from Electric Utilities](#)” rule—that regulates how coal ash is managed and stored. The rule requires that a coal ash basin close if it:

- No longer receives coal ash;
- Does not meet certain EPA structural standards;
- Does not meet certain EPA groundwater standards; or
- Does not comply with EPA's location restrictions.

Who is closing coal ash basins?

Under EPA's coal ash rule, the owners and operators of coal ash basins are responsible for closing coal ash basins.

How is a coal ash basin closed?

There are two options for closing basins: managing coal ash in place (closed-in-place) or excavating and moving coal ash to another location (closed-by-removal). The EPA recognizes that both options are viable and provide environmental benefits, and the electric power industry is committed to meeting or exceeding all federal, state, and local regulations.

For any closure activity, the EPA requires companies to prepare a written closure plan that must include:

- A description of how the coal ash basin will be closed in accordance with the coal ash rule;
- An estimate of the maximum amount of coal ash ever onsite during the active life of the basin;
- A description of the cover system; and
- A schedule for completion of the closure.

What is dewatering?

Closing a coal ash basin involves the removal of water from the basin in a process called dewatering. The dewatering and subsequent ash management measures help stabilize and compact the ash so it can be safely left in place and the basin closed or removed for disposal in another location. Regardless of the closure method, water is safely removed from the basins in ways that protect water quality.

During the dewatering process, water from the basin is typically treated, tested, and discharged in accordance with federal, state, and local water regulations (including applicable National Pollution Discharge Elimination System permits that may include treatment and monitoring requirements).

How are streams, rivers, and groundwater being protected while closing coal ash basins?

When closing a coal ash basin, electric companies work with all federal, state, and local water regulators to obtain the necessary permits to safely protect the environment. As the basin is closed, owners and operators use EPA- or State-approved structural protections, such as covers and fills. These protections help maintain the integrity of the closed basin.

Water removed from basins is treated and tested before it is discharged. Additionally, after a basin is closed, groundwater is monitored for a long period of time, in some cases up to 30 years. Where applicable, corrective action ensures the surrounding environment continues to be safeguarded.

What is being done to minimize the impact of coal ash to communities?

Each basin closure is unique, and there are site-specific requirements that must be met at each basin. The industry is committed to closing basins safely while protecting the environment and our communities.

This means closing basins in ways that:

- Do not require additional disposal locations;

- Reduce emissions;
- Maximize transportation safety;
- Minimize the cost to customers; and
- Safely and expediently close the basin.

What is the first step companies are taking to close the basins?

According to EPA’s final coal ash rule, companies must assess each basin and if applicable, subsequently issue a written closure plan. Closure plans must be posted to a CCR rule compliant public website no later than November 16, 2016.

When will basins be closed?

The electric power industry takes the management of coal ash very seriously and is committed to closing ash basins in ways that put safety first, protect the environment, minimize impacts to communities, and manage costs for customers.

There are a number of key basin closure milestones outlined in EPA’s final coal ash rule. Those include:

Date	Milestone
April 17, 2015	The EPA’s CCR rule was published in the Federal Register.
October 17, 2016	Certain basin structural standards must be met or within 6 months the basin closure process must begin.
October 17, 2016	Closure plans must be finalized by the company.
November 16, 2016	Closure plans must be published on a CCR rule compliant public website.
October 17, 2017	Certain basin groundwater monitoring standards must be in place or within 6 months the basin closure process must begin.
October 17, 2018	Basin location restrictions must be met or within 6 months the basin closure process must begin.

The rule requires that basin closures be complete within five years of the start of closure activities. However, if the time required to complete closure exceeds this timeframe, up to five two-year extensions are permitted. Site-specific information supporting any time extension to the closure timeframe must be clearly identified in the November 16, 2016, written closure plan.

EPA’s revised Steam Electric [Effluent Limitation Guidelines](#) (ELGs) also affect the management of ash and the timeline of basin closures. The new ELGs establish zero discharge effluent limits for both ash transport water (with very limited exceptions) and very stringent limits on Flue Gas Desulfurization (FGD) wastewater. The new limits, which will be implemented through National Pollutant Discharge Elimination System (NPDES) permit, will be applicable after November 1, 2018, but no later than December 31, 2023. The permitting authority will determine what date represents

the earliest date that the plant can meet the final limits. This will be based on factors provided by the plant, including changes being made or planned at the plant, in response to greenhouse gas regulations, as well as the EPA's final coal ash basin rule.

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