

Overview of the Environmental Protection Agency's 2015 Coal Ash Rule

The electric power industry is beginning to permanently close, where applicable, the basins where coal ash is stored, in ways that put safety first, protect the environment, minimize impacts to communities, and manage costs for customers.

The U.S. Environmental Protection Agency (EPA) has specific regulations that govern how to store and dispose of coal ash.

In April 2015, EPA issued a final rule—the “[Disposal of Coal Combustion Residuals \(CCR\) from Electric Utilities](#)” rule—that when closure is required identifies two closure options: managing coal ash in place (closure-in-place) or excavating and moving coal ash to another location (closure-by-removal). Basins closed-in-place are often consolidated to create a smaller footprint. The EPA recognizes that both options are viable and provide environmental benefits. The rule explicitly allows the owner or operator of the basin to determine whether closure-in-place or closure-by-removal is appropriate.

All electric companies affected by this rule must develop a written closure plan that describes the closure method and closure schedule.

Written Closure Plan

The written closure plan must describe the steps necessary to close the coal ash basin, consistent with recognized and generally accepted good engineering practices. The plan 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.

If the basin is being closed-by-removal, the plan must also include a description of the procedures to remove the coal ash from the basin and the surrounding environment.

The final cover system must be designed and constructed to meet the following criteria:

- The permeability of the final cover system must be less than or equal to the permeability of any bottom liner system or natural subsoils;
- The infiltration of liquids to the closed coal ash basin must be minimized by the use of an infiltration layer that contains a minimum of 18 inches of earthen material;
- The erosion of the final cover system must be minimized by the use of an erosion layer that contains a minimum of six inches of earthen material that is capable of sustaining native plant growth; and

- The disruption of the integrity of the final cover system must be minimized through a design that accommodates settling.

If the basin is closed-in-place, the closure must:

- Control, minimize, or eliminate—to the maximum extent feasible—the post-closure infiltration of liquids, such as rainwater, into the closed basin and surrounding environment;
- Decrease the probability of closing the basin with water, sediment, or slurry in the future;
- Include measures that provide increased slope stability to prevent the sloughing or movement of the final cover system;
- Minimize the need for further maintenance of the basin; and
- Be completed in the shortest amount of time, consistent with recognized and generally accepted good engineering practices.

Dewatering Coal Ash Basins

Regardless of the closure method, water will be removed from the basins in ways that protect water quality. This water removal process is called dewatering.

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).

Closure Schedules

The schedule must include a timetable for completing all activities. These activities include:

- An estimate of the year all closure activities for the basin will be complete;
- A description of the sequential closure steps;
- An identification of major milestones, such as permits obtained and approved by federal, state, or local agencies;
- A description of the dewatering and stabilization phases of the basin;
- A description of the final cover system; and
- An estimated timeframe to complete each phase.

The rule requires coal ash basin closures to be complete within five years of the start of closure activities. However, if the time required to complete closure will exceed this timeframe, up to five two-year extensions are permitted. Site-specific information, factors, and considerations that would support any time extension to the closure timeframe deadline must be clearly identified in the written closure plan.