

Fact Sheet: Final Rule on Coal Combustion Residuals Generated by Electric Utilities

(December 2014)

On December 19, 2014, the EPA Administrator signed a final rule that establishes a comprehensive set of requirements for the disposal of coal combustion residuals (CCRs or coal ash) in landfills and surface impoundments. These requirements have been finalized under the solid waste provisions, subtitle D, of the Resource Conservation and Recovery Act. These regulations protect our water, our air, and our communities and contain provisions to help ensure that actions taken by power plants to comply with this rule are transparent and that the communities impacted by the disposal of CCRs have the information they need.

The rule establishes requirements for both existing and new CCR landfills and surface impoundments, including lateral expansions of any existing unit. These include:

Reducing Risk of Catastrophic Failure

Structural Integrity Requirements (requirements starting 6 months to 2 years after rule publication) – To prevent the damage associated with structural failures of CCR surface impoundments, the rule establishes structural integrity design criteria and requires that owners and operators periodically conduct a number of structural integrity related assessments, including for example:

- Periodic structural stability assessments by a qualified professional engineer and periodic safety factor assessments to document that the unit achieves minimum engineering factors of safety
- Conducting periodic hazard potential classification assessments to assess the damage that would occur if there was a failure of the CCR surface impoundment
- Conducting periodic safety factor assessments to document whether the CCR disposal unit achieves minimum factors of safety
- Weekly inspections of the CCR unit and monthly monitoring of unit instrumentation

In addition, certain surface impoundments must develop an emergency action plan which details the actions that will be taken to protect communities in the event there is an issue with the structural safety of the unit.

Protecting Groundwater

Groundwater Monitoring and Corrective Action (requirements starting 30 months after rule publication) – These provisions require the owner or operator of a CCR unit to install a system of monitoring wells and specify procedures for sampling these wells and for analyzing the data to detect the presence of hazardous constituents. In those cases where hazardous constituents are in the groundwater above groundwater protection standards, the owner or operator must immediately begin the corrective action process to clean up the contamination caused by the unit. If the unit causing the contamination is an unlined surface impoundment, it must begin the closure process.

Location Restrictions (requirements starting 18 months after rule publication) – The rule establishes five location restrictions to help ensure that landfills and surface impoundments are appropriately sited. These include restrictions related to placement above the uppermost aquifer, in wetlands, in fault areas, in seismic impact zones and in unstable areas. Owners or operators must

demonstrate that their existing landfills or surface impoundments meet these restrictions currently, through engineering enhancements, or established alternatives as set forth in the rule. Owners or operators of existing units that cannot make the required demonstrations must close the unit. New units must be built in compliance with the requirements.

Liner Design Criteria (documentation required 18 months after rule publication) – All new landfills, new surface impoundments, and lateral expansions must have a composite liner. The rule establishes liner design criteria to help prevent contaminants in CCRs from leaching from the unit and contaminating the groundwater. All new landfills are required to have a leachate collection and removal system which is designed to remove excess leachate that may accumulate on top of the liner. Existing unlined landfills may continue to operate.

Operating Criteria

Operating Criteria (requirements starting 6 months after rule publication) – The operating criteria address the day-to-day operations of CCR units and establish requirements to prevent public health and environmental impacts from the units. These include air criteria for all units, run-on and run-off controls for landfills to minimize the amount of water entering the unit and thus prevent erosion, water discharges and the creation of landfill leachate, and run off controls to help protect against releases to surface waters. CCR surface impoundments are also subject to requirements to help ensure the unit can safely handle flood flows to prevent overtopping of the unit. The air criteria address the pollution caused by windblown dust from CCR units and require that the owners or operators control CCR from becoming airborne at a facility.

Record Keeping, Notification, and Internet Posting

Record Keeping, Notification, and Internet Posting (requirements 6 months after rule publication) – The final rule requires owners or operators of CCR units to record compliance with these requirements in the facility's operating record. In addition, the facility must notify the state of decisions and maintain a publicly available website of compliance information. Some examples are annual groundwater monitoring results, corrective action reports, fugitive dust control plans and closure completion notifications. These requirements help ensure transparency and provide citizens with the information about CCR units in the state. It will also provide citizens and states with the information they need to fully engage in its implementation.

Inactive Units

The rule also deals with surface impoundments that have ceased receiving waste by the effective date of the rule ("inactive units"). Those units, if they have water and contain CCRs, still pose a risk, especially of structural failure. If these units complete closure (that is dewater and a final cover) within three years of the publication of this rule, then they are not subject to any additional requirements under the rule.

State Programs

The regulations being finalized today are minimum federal criteria with which facilities must comply without the engagement of another state or federal regulatory authority. States are not required to adopt these regulations, to develop a permitting program, or to submit a program to EPA for approval. There is no mechanism for a state program to operate "in lieu of" the federal regulations.

Nevertheless, EPA recognizes the crucial role that our state partners play in implementation and in ensuring compliance with environmental regulations, particularly in complex situations such as corrective action. EPA is strongly encouraging states to adopt at least the federal minimum criteria into their regulations. EPA recognizes that some states have already adopted requirements that go beyond the minimum federal requirements (e.g., financial assurance). This rule will not affect these state requirements; moreover, the final rule does not preclude a state from adopting more stringent requirements where they deem that appropriate.

EPA expects that states will be active partners in overseeing the regulation of CCR landfills and CCR surface impoundments and has finalized a number of provisions to ensure that states have the information necessary to undertake this role. The final regulations require owners or operators of regulated CCR units to notify the state of actions taken to comply with the requirements of the rule. In addition, facilities will be required to maintain a publicly accessible Internet site that will document the facility's compliance with the requirements of the rule and states will be able to access this site to monitor facility activities.

In addition, EPA anticipates that states will revise their Solid Waste Management Plans (SWMPs) to demonstrate how CCRs will be regulated in their states. The SWMP is the mechanism where a state will be able to set out, as part of their overall solid waste program, how the state intends to regulate CCR landfills and surface impoundments. In other words, the plan can demonstrate how the state program has incorporated the minimum national criteria and can highlight those areas where the state regulations are more stringent or otherwise go beyond the federal minimum criteria. For example, the plan can describe the actions the state will take to oversee CCR disposal units, particularly those units undergoing closure or corrective action, and how the state intends to review or use the notices and other information pertaining to the units that the facility owners will be providing to the state.

Citizens also perform a critical role in the development of SWMPs. Revisions of SWMPs must have a public participation process. This process will provide the public and communities near CCR landfills and surface impoundments with an opportunity to participate in the decision making about how CCRs are managed in their State.

Once EPA has approved a SWMP that incorporates or goes beyond the minimum federal requirements, EPA expects that facilities in that state will operate in compliance with that plan and the applicable state regulations. In those circumstances, EPA's view is that facilities adhering to the requirements of a state program that is identical to or more stringent than an approved SWMP will meet or exceed the minimum federal criteria. EPA anticipates that a facility that operates in accord with an approved SWMP will be able to positively use that fact in a citizen suit brought to enforce the federal criteria. EPA believes a court will accord substantial weight to the fact that a facility is operating in accord with an EPA-approved SWMP.

EPA will work closely with states on implementation issues. However, EPA has no formal role in implementation of the rule. EPA does not issue permits, nor can EPA enforce the requirements of the rule.

Closure

Closure and Post Closure (requirements 18 months after rule publication) – These criteria help ensure the long term safety of units that are closing and require all units to close in accordance with specified standards and to monitor and maintain the units for a period of time after closure, including maintaining groundwater monitoring and corrective action. The rule establishes specified timeframes for

both beginning and completing closure and enables owners/operators to obtain extensions due to circumstances beyond the facility's control; where there is no alternative disposal capacity; or where the facility is permanently closing the coal fired boiler in the near future.

Closure of a CCR unit is triggered in one of three ways:

1. When a unit fails to meet technical criteria:
 - a. If the CCR unit cannot meet the location criteria or the engineering demonstrations that the unit can still operate safely even though it does not meet the location restrictions.
 - b. If an unlined CCR surface impoundment is found to contaminate groundwater in excess of a groundwater protection standard.
 - c. If a CCR surface impoundment cannot demonstrate that it meets the minimum factors of safety regarding structural integrity of the CCR unit.

In addition, closure would also occur due to an owner's decision to cease using the unit in the following circumstances.

2. When a CCR unit receives the known final waste shipment or when the owner or operator removes the known final volume of CCRs from the unit for the purposes of beneficial use. In this case, closure must begin within 30 days of such receipt or volume removal.
3. For "idled" units – the rule establishes a presumption that the owner or operator must initiate closure of the CCR unit no later than two years after the most recent receipt of CCRs or any non-CCR waste stream or no later than two years after the most recent date that CCRs were removed from the unit for the purpose of beneficial use, whichever is later. The rule provides procedures for an owner or operator to rebut this presumption and obtain additional time, provided the owner or operator can make the required demonstration.

Beneficial Use

The final rule does not regulate CCRs that are beneficially used, and provides a definition of beneficial use to distinguish between beneficial use and disposal. This rule does not affect beneficial use applications started before the effective date of the rule. Only applications to be started after the effective date of the rule need to determine if they comply with the criteria contained in the final rule distinguishing between beneficial use and disposal. Additionally, the rule establishes a comprehensive definition of beneficial use of CCRs to remove confusion about what constitutes beneficial use. The rule also clarifies that a use of a CCR that is not beneficial use is disposal.



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