EPA

Frequent Questions about Closure and Post-closure Care and Implementing the Final Rule Regulating the Disposal of Coal Combustion Residuals (CCR)

EPA developed a list of responses to the many questions the Agency received about implementing the 2015 final CCR disposal rule <https://epa.gov/coal-combustion-residuals/coal-ash-rule>. The question that falls under the category of closure and post-closure care and its responses is below:

QUESTION: A facility employs a wastewater treatment system design using multiple CCR surface impoundments configured in a series. Water and wastewater that enters the system moves by gravity and/or pumping from one impoundment to the next in the treatment system before being discharged from a National Pollutant Discharge Elimination System (NPDES) permitted outfall. The facility identified the surface impoundments separately under the CCR regulations because each has its own dam, but operated them collectively as a single wastewater treatment system. The facility intends to close all of the units within that system through closure by removal ("clean closure"), within the applicable time frames mandated in the CCR regulations. After initiating closure and after initial dewatering has been completed, the impoundments will continue to be used to manage stormwater on site throughout the closure process, until closure is completed. Rainwater and non-contact stormwater from precipitation events, which will come into contact with the CCR that still remains in the units, will be pumped through the system (i.e., Impoundment 1 to Impoundment 2 to



Impoundment 3, etc.). The material will be pumped from the last impoundment in the series and treated in a wastewater treatment plant (WWTP) located near the outfall of the last impoundment in the series. The WWTP will discharge into the river in accordance with the terms and conditions of a NPDES permit. Do the CCR regulations allow the facility to continue to operate in this fashion throughout the closure process?

RESPONSE: This question pertains to a situation where closure of multiple surface impoundments will be accomplished by removal of CCR from the surface impoundments, so EPA's response is limited to this situation. In addition, the response only addresses the situation in which the facility chooses to close all units within the system; the analysis would differ if the facility chose to close only some of the units within the system.

The Title 40 Code of Federal Regulations (CFR) Part 257, Subpart D regulations do not contemplate a circumstance in which a unit would continue to receive wastes after closure has been initiated. Refer to 40 CFR section 257.102(e)(1)(i); (e)(3). Moreover, a CCR unit that must close for cause, pursuant to 40 CFR section 257.101, is expressly prohibited from placing additional waste in the unit after a specified time. For example, an unlined CCR surface impoundment whose groundwater monitoring shows a statistically significant exceedance of a groundwater protection standard must "cease placing CCR and non-CCR wastestreams into such CCR surface impoundment and either retrofit or close the CCR unit" within six (6) months of making this determination. 40 CFR section 257.101(a)(1).

Normally EPA would consider that when a facility pumped wastewaters (i.e., the rainwater and non-contact stormwater from precipitation events, along with any CCR remaining in the unit) into subsequent impoundments, the facility would be "placing wastes" into the downstream units. However, in the situation described in the question, EPA would consider multiple impoundments that operate in a series to be a single "multiunit system," and would consider the entire multiunit system to be one CCR unit for purposes of closure. As a consequence, the pumping of the wastewaters from the first impoundment into subsequent impoundments that are configured in a series would be better characterized as the movement of waste within a disposal unit, which is generally not regulated under the Resource Conservation and Recovery Act (RCRA), rather than the movement between disposal units, which is typically regulated.

Although the facility originally identified each surface impoundment in the series separately under the CCR regulations, they operated them collectively as a single wastewater treatment system, and most critically for purposes of this question, is in the process of closing them as a single unit (e.g., under the same time frames).

EPA's regulations already expressly provide for the situation in which a series of CCR units is considered to be a multiunit system. Refer to, e.g., 40 CFR section 257.53 (defining CCR unit to include a combination of more than one CCR unit); 40 CFR section 257.91(d)(multiunit system for purposes of groundwater monitoring). While the closure regulations do not include specific requirements for such situations, they do not prohibit a facility from closing their multiunit system as a single CCR unit, provided all applicable requirements and deadlines for closure are followed for the designated single CCR unit—i.e., all CCR units comprising the multiunit wastewater treatment system. Thus, should the owner or operator elect to use this approach, for example, they would need to prepare a written closure plan that describes the steps necessary to close all of the impoundments that comprise the multiunit system. After the CCR units comprising the multiunit system are designated as a single CCR unit, the requirements specifying when closure activities must commence must be met for the entire multiunit system. Similarly, closure of the entire system would need to be completed within the regulatory deadline for a single unit (40 CFR section 257.102(f)) (i.e., five years for a CCR surface impoundment); to qualify for any extensions of the closure time frames, the owner or operator would also need to make the necessary demonstration(s) for the entire unit, and the total amount of time available would be based on the aggregate size of the impoundments comprising the multiunit system (e.g., if the aggregate size was greater than 40 acres, the time frames in 40 CFR section 257.102(f)(2)(ii)(B) would apply).

The regulations also specify that, in this situation, if the facility has installed a multiunit groundwater monitoring system, all of the unlined impoundments in the system must close or retrofit under section 257.101(a). 40 CFR section 257.90(d)(2). Similarly, if the facility has decided to close its units as a multiunit system as discussed above, in the event that closure for cause has been triggered under 40 CFR section 257.101(a) for one or more impoundments in the multi-unit system, all CCR units within the multiunit system (i.e., the designated single CCR unit) would be subject to the 6-month prohibition on receiving CCR and non-CCR wastestreams. This is because, as noted

above, the entire multiunit system would be considered one CCR unit for purposes of closure. Note that the regulations do not compel a facility to treat "connected" units as a single multiunit system; rather this falls within the facility's discretion.

As a designated single CCR unit, however, the movement of CCR and other wastes between the individual units that make up that system would be permissible throughout the closure period during closure activities under 40 CFR section 257.101(a)(1); as noted previously, the movement of waste within a unit is generally not considered to be the "placement" of waste into a unit. For example, movement of CCR between impoundments within the multiunit system to facilitate CCR dewatering and removal activities, even after the 6-month period would be permissible under this closure approach. Similarly, the continued pumping of the wastewaters through the multi-CCR unit system toward the NPDES-permitted outfall during closure (e.g., generated by precipitation or the release of interstitial water during CCR excavation) would also not be inconsistent with the placement prohibition under 40 CFR section 257.101(a)(1). However, the addition of CCR or other wastes from locations external to the multiunit system would not be permissible, as this would constitute the placement of waste within the multiunit system.

Do you want to read all of the 2015 final rule implementation questions at once? Check out the complete list in PDF format <https://epa.gov/coal-combustion-residuals/list-frequent-questions-about-implementing-final-rule-regulating-disposal>.

NOTE

EPA finalized amendments to the 2015 final rule that may affect these frequent questions. Additionally, we have not updated these frequent questions since Congress passed the Water Infrastructure Improvements for the Nation Act that paves the way for state coal ash permit programs. Please refer to the following rulemakings and the WIIN Act for more information:

- Extension of Compliance Deadlines and Response to Partial Vacatur. <https://epa.gov/coalash/coal-ash-rule#extension>
- Amendments to the National Minimum Criteria Finalized in 2018 (Phase One, Part One). <https://epa.gov/coalash/coal-ash-rule#partonephaseone>

- Final Rule - A Holistic Approach to Closure Part A: Deadline to Initiate Closure and Enhancing Public Access to Information. <https://epa.gov/coalash/coal-ash-rule#partaenhancing>
- Final Rule - A Holistic Approach to Closure Part B: Alternate Liner Demonstration. <https://epa.gov/coalash/coal-ash-rule#partb>
- State CCR permit programs and the WIIN Act. <https://epa.gov/coal-combustion-residuals/permit-programs-coal-combustion-residual-disposal-units>
- Final Rule - Legacy CCR Surface Impoundments. <https://epa.gov/coal-combustion-residuals/final-rule-legacy-coal-combustion-residuals-surface-impoundments-and-ccr>

Last updated on April 15, 2025