



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

APR 12 2018

OFFICE OF  
SOLID WASTE AND  
EMERGENCY RESPONSE

NOW THE  
OFFICE OF LAND AND  
EMERGENCY MANAGEMENT

Mr. Corey Webb  
Deputy Assistant Commissioner  
Indiana Department of Environmental Management  
Office of Land Quality  
100 North Senate Avenue, IGCN, Room 1154  
Indianapolis, Indiana 46204

Re: Responses to Questions Regarding the Federal Coal Combustion Residuals (CCR) Regulations

Dear Mr. Webb:

Please find enclosed responses to questions regarding the final rule titled "Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals," 80 FR 21302 (April 17, 2015). These federal regulations are codified in 40 CFR part 257, subpart D. Your staff posed six questions to us regarding the implementation of the CCR rule and this letter provides our response to questions 4 through 6. We previously sent our response in regards to questions 1 through 3 on February 21, 2018. If you have questions regarding either letter, please contact me at (703) 308-8895 or Mary Jackson at (703) 308-8453.

Sincerely,

A handwritten signature in blue ink that reads "Barnes Johnson".

Barnes Johnson, Director  
Office of Resource Conservation and Recovery

Enclosure

cc: Ms. Rebecca Eifert Joniskan, Indiana Department of Environmental Management

## **EPA Response to Questions 4-6 on the CCR Regulations from the Indiana Department of Environmental Management**

Q4(a): What does the Agency mean by “infiltration” in § 257.102(d)(1)(i), the performance standard for CCR units closing with waste in place?

Q4(b): Does “ground” in § 257.102(d)(1)(i) mean ground or ground water?

*A(4a-b): Overall, the performance standards for closure when leaving CCR in place in EPA’s CCR regulations are designed so that the hazardous constituents in the wastes remain in the unit, away from potential receptors, and are not released into the environment. A key method for achieving this is to control, minimize or eliminate to the maximum extent feasible infiltration of liquids into the waste and releases of CCR, leachate, or contaminated run-off to the ground or surface waters. In implementing the various regulatory standards, EPA recommends that the state permitting authority (or the facility) evaluate these requirements in light of specific site conditions to determine how best to meet the performance standards. Careful consideration should be given to available monitoring data to determine adequacy of the closure plan. In reviewing the adequacy of a facility’s closure plan, the State should evaluate whether the planned closure can be performed in a manner that satisfies each of the relevant standards. In some cases, certain activities may be more efficiently performed during closure rather than waiting until the post-closure time period. An adequate closure plan would address such issues to ensure that closure activities do not foreclose or complicate any necessary corrective action.*

Q4(c) What factors should be taken into account in determining “the maximum extent feasible”?

*A (4c): The regulation does not dictate a particular method by which a facility must demonstrate that the facility has “controlled, minimized or eliminated, to the maximum extent feasible...” as this is dependent on site-specific circumstances. One engineering set of solutions that may meet the standard of controlling, minimizing, or eliminating to the maximum extent feasible may be appropriate at one site but inappropriate at another site. One way for an owner/operator to document that they have “controlled, minimized or eliminated, to the maximum extent feasible...” would be for the facility to present an analysis of different closure options and different techniques to achieve this standard. At a minimum the facility would need to document the measures they had taken to meet the performance standards and explain why these measures met the regulatory standard, based on the site and unit characteristics.*

Q5: What was the intent of the Agency in revising the Q & A on closure located on the EPA's CCR website <https://www.epa.gov/coalash/relationship-between-resource-conservation-and-recovery-acts-coal-combustion-residuals-rule> (what are the options and the performance standards for closure of units under the CCR rule)? What is the result of that change? Why was the example removed?

*A: The revised Q&A in no way altered or modified the regulatory closure standards. Both the original and revised Q&A unequivocally state: “the facility must meet all of the performance standards for the closure option it has selected, and if it cannot meet all of the performance standards for one option, then it must meet all of the performance standards for the other option. For example, if the facility is unable to meet the performance standards for closure with waste in place for a particular unit (or portion of a unit), it must clean close the unit (or that portion).”*

*The revision was intended to clarify the following: “If the performance standards for clean closure and the performance standards for closure with waste in place can be met, an owner or operator may determine which alternative is appropriate for their particular unit. A facility also may choose to clean close a portion of a single unit and close the remainder of that unit with waste in place.”*

Q6: What does the Agency mean by “background” in § 257.91(a)(1)?

*A: The owner/operator (O/O) must select wells for the determination of background levels of constituents that not have been affected by leakage from a CCR unit. § 257.91(a)(1).*

*Two points are relevant here: 1. The onus remains on the O/O to demonstrate that this performance standard has been met. 2. This includes leakage from any CCR unit located on the facility. Consequently, if the levels of regulated constituents are higher than would normally expected to be found in uncontaminated aquifers, the onus is on the O/O to demonstrate that the contamination has not come from a CCR unit. See also, e.g., 40 CFR 257.91(f), 257.105(h)(3).*

*Generally, in groundwater monitoring, the objective of background monitoring is to develop levels that represent groundwater that has not been contaminated by CCR while at the same time taking into consideration that both naturally occurring and anthropogenic sources of contamination if not considered could be misinterpreted as arising from CCRs. Some further guidance is discussed in the preamble to the final rule at 80 Fed Reg 21,400-21,401, along with references to more detailed technical guidance. As described in the “Technical Manual Solid Waste Disposal Facility Criteria”, EPA530-R-93-017, USEPA, November, 1993, Chapter 5, Subpart E, Ground-Water Monitoring and Corrective Action, “The most important quality of background is that it reflects the historical conditions unaffected by the activities it is designed to be compared to.”*

*The Unified Guidance also includes the following definition: **Background** - Natural or baseline groundwater quality at a site; can be characterized by upgradient, historical, or sometimes sidegradient water quality.*