## 1. Coal Ash- the Law

Coal Ash, also referred to as coal combustion residuals or CCRs, is produced whenever coal is burned at coal-fired power plants and is one of the largest sources of industrial waste generated in the United States. While a significant portion of coal ash is reused, often in the manufacture of cement or wall board, the remaining is disposed of in landfills or surface impoundments (ponds).

The ash contains contaminants like mercury, cadmium, and arsenic, and without proper management, these contaminants can pollute ground and surface water, air, and may concentrate in aquatic organisms. In response to major coal ash spills in Kingston, TN in 2008 and in Eden, NC in 2014, the US Environmental Protection Agency established federal regulations governing the disposal of coal ash and increased controls on associated waste water discharges. What follows is a timeline and summary of relevant steps during this process.

Торіс	Y e a r	What Happened	Significance	Applicability to Barry Steam Plant Coal Ash Pond
Evolution of the Law	2 0 0 8	A wall of a coal ash impoundment in Kingston, TN fails spilling more than one billion gallons of coal ash slurry, contaminating more than 300 acres, and destroying local infrastructure.	In response to the spill, EPA initiates the Coal Combustion Residuals or CCR Assessment Program, which assesses the structural integrity of over 500 coal ash impoundments nationwide.	
Final Rule	2 0 1 5	EPA Administrator Gina McCarthy signs final Disposal of Coal Combustion Residuals Rule- which establishes regulations regarding: Structural integrity requirements, groundwater monitoring corrective action standards, operating criteria, recordkeeping, public disclosure requirements, post closure requirements	The rule regulated coal ash under Subtitle D, deferring a determination of its status as hazardous or non-hazardous, of RCRA and required any existing CCR surface impoundment that was contaminating groundwater above a regulated constituent's groundwater protection standard to stop receiving CCR and either retrofit or close. It also required closure of any facility that could not meet the required location restrictions or structural integrity standards.  Location Restrictions on ponds include:  1. within five feet of the uppermost aquifer  2. in wetlands  3. within 200 feet of active fault zones  4. in seismic impact zones  5. in geologically unstable areas	Barry Steam Plant is:  1. Unlined  2. within five feet of uppermost aquifer  3. Contaminating groundwater in excess of groundwater protection standards  As a result, the rule required Alabama Power to stop using the ash pond.
Water Infrastructure for Improvement s to the Nation (WIIN) Act CCR Rule Amendment	2 0 1 6	President Obama signs WINN into law  EPA finalized the "phase one" rule that weakens some of the requirements for managing coal ash storage areas	Provides states with ability to enforce and develop their own programs to regulate coal ash disposal if they adhere to, or are at least as protective as, EPA's standards. The State of Alabama is in the process of getting their program approved by EPA.  Rule delays closure deadlines allowing existing coal ash ponds to continue receiving new coal ash. It also allows EPA or state regulating authorities to suspend groundwater monitoring if the state determines there is no potential to	ADEM is in the process of developing its own program.  Barry Steam Plant pond no longer receives coal ash. Coal Ash which is not recycled, is now hauled to the Chastang Landfill, six miles north of the plant.
D.C. Circuit Court Ruling	2 0 1 8	The US Court of Appeals (DC Circuit) struck down certain provisions of the coal ash rule as insufficiently protective	contaminate groundwater.  The court struck down provisions of the 2015 CCR rule that (a) allowed unlined and clay-lined impoundments to receive coal ash and (b) exempted certain inactive impoundments.	The Barry ash pond was already required to close prior to this decision.

## Sources

McCoy, Caitlin and Laura Bloomer. "The Coal Ash Rule". The Harvard Law School Environmental and Energy Law Program, 2017, eelp.law.harvard.edu/2017/12/coal-ash-rule/. Accessed 15 Aug. 2019.

Disposal of Coal Combustion Residuals from Electric Utilities. 40 C.F.R. Parts 257 and 261.

Coal Ash (Coal Combustion Residuals, or CCR). US EPA. www.epa.gov/coalash. Accessed 15 Aug. 2019.