



Regulation of COAL ASH

Coal Combustion Residuals (CCR), commonly known as coal ash, are created when coal is burned by power plants to produce electricity. CCR materials include a number of by-products from burning coal, including fly ash, bottom ash, boiler slag and flue gas desulfurization (FGD) materials.

Coal ash disposal is a highly regulated activity. Federal and state regulations include requirements for proper management and disposal of the material to ensure protection of both ground and surface waters and public health.

CCR materials are required to be disposed of or used beneficially in accordance with state and federal requirements.

On April 19, 2015, the U.S. EPA enacted as part of its Code of Federal Regulations (CFR), 40 CFR, Part 257, which applies to all CCR facilities on a national basis and provides for regulation of CCR materials under Subtitle D of the Resource Conservation and Recovery Act, the nation's primary law for regulating solid waste.

Disposal of CCR Materials

- » Unless used beneficially, CCR materials generated by power plants are required to be disposed of in landfills and surface impoundments in accordance with state and federal requirements.
- » 40 CFR, Part 257 allows for the disposal of CCR materials in a Class I municipal solid waste landfill, as the material is not classified a hazardous waste. These facilities have protective liner and leachate collection systems that meet federal requirements.
- » Stringent monitoring and reporting requirements ensure that groundwater is protected and an early detection system in place so that should any impact occur, corrective actions can be taken before there are any offsite groundwater impacts.
- » Facilities are required to determine the nature of the waste and ensure compliance with state rules and regulations. As part of their operations, facilities are required to document and monitor accepted waste.
- » DEP strongly recommends that the receiving facility request a special waste profile be performed, as well as a Toxicity Characteristic Leaching Procedure (TCLP) test. The special waste profile can include information, such as who generated the waste, how the waste was generated, origin, estimated material composition, etc. The TCLP test is used to determine if the material is non-hazardous. The analysis includes eight RCRA metals: Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium and Silver.

FAST FACTS

- CCR materials are created when coal is burned by power plants to create electricity. CCR materials include fly ash, bottom ash, flue gas desulfurization materials and boiler slag.
- Beneficial use and disposal occurs in all 50 states.
- CCR materials are not classified as a "hazardous waste."
- Federal and state rules regulate the beneficial use and disposal of CCR materials.
- 40 CFR, Part 257, became effective on April 19, 2015, and applies to all facilities, including coal-fired power plants that generate CCR materials in operation after October 19, 2015.
- 40 CFR, Part 257, allows for the disposal of CCR materials in a Class I municipal solid waste landfill, since these facilities have protective liner and leachate collection systems that meet federal requirements.



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- » DEP performs compliance inspections of these facilities at a minimum of annually. Additional inspections are also performed in response to complaints or any identified compliance concerns.

Beneficial Use of CCR Materials

- » CCR materials may be beneficially used. Section 403.7047, Florida Statutes (F.S.) and 40 CFR, Part 257.53. 403.7047, F.S. contain specific requirements for beneficial use of CCR materials in asphalt, cement or concrete products, structural fill or pavement aggregate, in a manner that is not a threat to public health or the environment.
- » Pursuant to 40 CFR, Part 257.23, the beneficial use of CCR materials must meet four criteria. The CCR materials must (1) provide a functional benefit; (2) substitute for the use of a virgin material; (3) meet product specifications and/ or design standards; and (4) when unencapsulated, if the use of CCR involves placement on the land of 12,400 tons or more in non- roadway applications, the user must demonstrate and provide documentation upon request, that environmental releases to ground water, surface water, soil, and air are comparable to or lower than those from analogous products made without CCR, or that releases will be below relevant regulatory and health-based benchmarks for human and ecological receptors.

Florida CCR Facilities

- » Florida currently has nine active power plants that generate CCR materials.
- » CCR landfills: There are nine active or in-active CCR landfills that are regulated under 40 CFR, Part 257.
- » Six CCR landfills in Florida are also regulated under the state's Power Plant Siting Act.
- » CCR Surface Impoundments: There are ten active or in-active CCR surface impoundments regulated under 40 CFR, Part 257.
- » Florida has regulated the disposal of CCR materials at power plants under various rules since the 1970s.

Oversight and Public Information

- » 40 CFR 257.107 requires that owners of CCR facilities develop a publicly accessible website and post CCR compliance information.

- » Links to the CCR websites can be obtained via the U.S. EPA website or by contacting the DEP's Solid Waste Section. The U.S. EPA website link is: <https://www.epa.gov/coalash>
- » 40 CFR 25.106 specifies that required notifications for completion of various CCR related items and/ or tasks be sent to the relevant state director and/ or appropriate Tribal authority before the close of business on the day the notification is required to be completed.
- » DEP's Solid Waste program reviews each facility's CCR notification for compliance and maintains each notification on file.

Major 40 CFR Part 257 Requirements

- » 40 CFR Part 257 became effective on April 19, 2015, and applies to all existing and new CCR landfills and surface impoundments that received CCR materials after October 19, 2015.
- » 40 CFR, Part 257 contains specific requirements for location restrictions; beneficial use; design standards; operating standards; groundwater monitoring and corrective action; closure and post-closure care; record keeping; state director notification; and internet posting.
- » The location restrictions are designed to protect groundwater and restrict placement of CCR materials to no less than 5 feet above the uppermost aquifer; and restricting placement of CCR materials in wetlands, fault areas, seismic impact zones and in unstable areas.
- » To protect air quality and surface waters, operating standards include those for fugitive dust control; inspections; hydraulic capacity requirements for surface impoundments; and run-on/run-off requirements for landfills.
- » The groundwater monitoring and corrective action requirements for each CCR unit include an initial detection monitoring program for designated parameters; an assessment monitoring program based on the results of the detection monitoring program; and implementation of corrective measures if it's found that as a result of the assessment monitoring program that CCR unit has impacted groundwater above applicable levels established by the U.S. EPA or the DEP.