

Coal Ash Management in Virginia

At a Glance

The safe closure of coal ash ponds will involve Virginia's water quality and solid waste management regulations. These regulations include a built-in margin of safety and require:

- All discharges of water from coal ash ponds must meet effluent limits, which ensure that Virginia's water quality standards are met
- Review and approval of closure plans and installation of impermeable cap to prevent runoff
- Groundwater and surface water monitoring and reporting
- Financial assurance to cover closure costs
- Post-closure plan and cap maintenance
- Public participation process

What is coal ash?

Burning coal to generate electricity creates several types of byproducts or coal combustion residuals. These non-hazardous waste products are commonly known as coal ash. About 40 percent of coal ash is beneficially used in concrete, roofing materials, and bricks and gypsum board.

What is in coal ash?

Coal ash has many components— mostly silicon, iron, and aluminum with trace amounts of arsenic, selenium, mercury, boron, thallium, cadmium, chlorides, bromine, magnesium, chromium, copper, nickel, and other metals. Ash composition varies widely depending on the coal type, origin, use, and air pollution control equipment.

How is coal ash managed?

Ash that is not beneficially used mainly has been placed in settling ponds called impoundments to keep it from becoming airborne. These impoundments have been regulated under the Clean Water Act since 1975. All impoundments have been operating with [Virginia Pollutant Discharge Elimination System](#) (VPDES) permits that specify the quality of water permitted to be released. Landfills also have been traditionally used to manage some coal ash under the solid waste management regulations.

In Virginia, there are six facilities that have coal ash impoundments that will close: Clinch River Power Station, Glen Lyn Power Station, Brema Power Station, Possum Point Power Station, Chesterfield Power Station and Chesapeake Energy Center.

Impoundment Locations



Is coal ash considered a hazardous waste?

No. After conducting eight public hearings, publishing three notices of data availability, and receiving more than 450,000 public comments, EPA finalized the rule under subtitle D, the solid or non-hazardous waste provisions of RCRA.

Why are there new rules governing coal ash?

In 2008 a spill at the Kingston Fossil Plant in Tennessee prompted the U.S. Environmental Protection Agency (EPA) to assess coal ash impoundments and gather information from facilities managing coal ash nationwide. EPA determined that improperly constructed or managed coal ash disposal units pose a potential threat to the environment, and in 2015 it issued new regulations for how coal ash may be stored and disposed. Coal ash storage facilities that pose an unacceptable risk must retrofit or close.

What state and federal rules govern coal ash management?

In 2015 EPA issued its final rules for management of coal ash under subtitle D of the Resource Conservation and Recovery Act (RCRA)—the country's primary law regulating solid waste. [The Final Rule on Coal Combustion Residuals Generated by Electric Utilities](#) established national minimum criteria for the storage and disposal of coal ash in landfills and surface impoundments. This new rule addresses the risks from coal ash disposal—contaminants leaking into groundwater, contaminants blowing into the air as dust, and the failure of coal ash surface impoundments. Under this rule, coal ash storage facilities that pose an unacceptable risk must retrofit or close.

On December 4, 2015, the Virginia Waste Management Board incorporated EPA's final rule into Virginia's regulations. Although Virginia was already regulating the use and disposal of coal ash, the state regulations had to be consistent with the new final rule. These regulations, part of the Virginia Solid Waste Management [Regulations](#), provide technical requirements for closure and post-closure of surface impoundments, as well as a permitting process to do so.

The closure of a coal ash settling pond or impoundment must also address VPDES requirements, which limit pollution discharges into waterways. Section 402 of the Clean Water Act established the [National Pollutant Discharge Elimination System](#) (NPDES) program, which DEQ administers as the Virginia discharge permit program (VPDES).

What standards govern water treatment?

Public water suppliers must treat water to drinking water standards as prescribed by law. The Virginia Department of Health enforces [drinking water regulations](#) and standards of the Virginia Public Water Supply Law and the federal Safe Drinking Water Act.

Streams, rivers, bays and other surface waters are protected by the Clean Water Act. DEQ enforces state and federal surface water regulations under NPDES. All facilities that discharge wastewater into surface waters must meet water quality standards designed to protect human health and the environment. This includes sewage treatment plants, industries, car washes, laundries, municipal and industrial stormwater facilities, and seafood processing plants. State and federal law and regulations prescribe conditions in their Virginia discharge permits.

How does EPA determine water quality standards with which states must comply?

Under the Clean Water Act, each state must adopt criteria water quality standards sufficient to protect designated uses and antidegradation requirements. One designated use, public drinking water, is protected by federal and state drinking water standards which prescribe treatment of water for public water supplies. For rivers and other surface waters in Virginia, water quality standards limit pollution to protect other designated uses including water for recreation (e.g. swimming and fishing) and the propagation of fish, shellfish and wildlife. EPA provides comprehensive toxicological evaluation of each chemical and guidance for assessing impacts of pollutants into streams and rivers.

How can I be notified of future permitting actions?

Anyone can subscribe to DEQcast at deq.virginia.gov/connectwithdeq/newsfeeds.aspx or Virginia Regulatory Town Hall at townhall.virginia.gov to receive notifications.

Public Participation

How and when can citizens comment?

Public comments are generally accepted on a draft permit for 30 days. In some cases, a public hearing is held at the end of this comment period. Sometimes a longer comment period and/or information meetings will be scheduled. The easiest way to be aware of opportunities to comment is to register to receive notifications from the [Virginia Regulatory Town Hall](#). If you need assistance using the site, our [user guide](#) may help.

Additional information

Final Rule on Coal Combustion Residuals Generated by Electric Utilities

<https://www.epa.gov/coalash/coal-ash-rule>

National Pollutant Discharge Elimination System

<https://www.epa.gov/npdes>

Virginia Solid Waste Management Regulations

<http://www.deq.virginia.gov/Programs/LandProtectionRevitalization/Laws,Regulations,Guidance/Regulations.aspx>

Virginia Pollutant Discharge Elimination System

<http://www.deq.virginia.gov/programs/water/permittingcompliance/pollutiondischargeelimination.aspx>

Virginia drinking water regulations

http://www.vdh.virginia.gov/odw/laws_regs.htm

Virginia Regulatory Town Hall

<http://www.townhall.virginia.gov/>