

TOXIC COAL ASH IN SOUTH CAROLINA

Addressing Coal Plants' Hazardous Legacy

For decades, utilities disposed of coal ash – the hazardous substance left after burning coal for energy – by dumping it in unlined ponds and landfills.

South Carolina has 34 coal ash dumpsites. Coal ash contains hazardous pollutants including arsenic, boron, cobalt, chromium, lead, lithium, mercury, molybdenum, radium, selenium, and other heavy metals, which have been linked to cancer, heart and thyroid disease, reproductive failure, and neurological harm. Industry's own data indicate that across the country 91% of coal plants are currently contaminating groundwater above federal health standards with toxic pollutants.¹

Coal ash remains one of our nation's largest toxic industrial waste streams. U.S. coal plants continue to produce approximately 70 million tons every year.²

Despite EPA's 2015 Coal Ash Rule, which created the first-ever safeguards for coal ash disposal, many coal ash dumps remain unregulated due to sweeping exemptions for legacy coal ash ponds and inactive landfills. The exempted coal ash dumps are sited disproportionately in low-income communities and communities of color. The EPA will issue a proposed rule to address these exemptions in May 2023.

South Carolina utilities operate **19 federally regulated coal ash ponds and landfills** containing nearly 24 million cubic yards of toxic waste at seven coal plants (Table 1). At all of the South Carolina plants, industry's monitoring data indicate that groundwater is contaminated above federal safe standards.³ Despite the serious water contamination, no South Carolina plant, to date, has selected a final cleanup plan that

Coal ash is leaching unsafe levels of toxic pollutants into groundwater at 91% of coal plants in the United States.

will actually remove the hazardous contaminants from the groundwater, as required by federal law. The coal ash contamination disproportionately impacts disadvantaged and vulnerable communities, as all but one of the coal ash-contaminated sites

are located in communities of color or low-income communities.

In addition, South Carolina hosts at least **15 unregulated inactive coal ash landfills and legacy ponds** that escape federal regulation (Table 2). The exact number remains unknown because utilities are not required to report these sites. At several of the sites in South Carolina, EPA and/or the utility has already determined that coal ash has contaminated groundwater, but there are no federal monitoring or cleanup requirements applicable to the unregulated dump sites.

As we anticipate EPA's proposed rule on legacy ponds and unregulated landfills in May 2023, a concern remains that the agency will not address coal ash that was dumped off site or used as fill.

Action Needed

The magnitude of harm from recklessly dumped toxic coal ash requires decisive action from federal and state regulators. Utilities must be required to comply with the law and immediately clean up their pollution.⁴ EPA and states must make enforcement a priority and act quickly to ensure that utilities leave communities with sites that benefit rather than harm their health, environment, and economic status. EPA must swiftly strengthen the Coal Ash Rule to address the many legacy ponds and inactive landfills

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that are unregulated, and prohibit coal ash used as fill unless protective measures are put in place, to ensure all South Carolina communities are protected from coal ash pollution.

Table 1: 19 Regulated Coal Ash Disposal Sites in South Carolina

Coal Plant	City	Owner	Coal Ash Dumps	Groundwater Contamination from Coal Ash Magnitude of exceedance above federal health-based guidelines ⁵
Cope	Cross	Dominion	1 landfill	Historical data indicate exceedances of cobalt and radium ⁶
Cross*	Cross	Santee Cooper	2 unlined ponds, 2 landfills	Beryllium (x4), Boron (x12), Cobalt (x15), Lithium (x2), Radium 226+228 (x3), Sulfate (x4)
HB Robinson	Hartsville	Duke Energy	1 unlined pond	Arsenic (x10), Lithium (x2), Molybdenum (x1), Radium 226+228 (x3), Thallium (x1)
WS Lee	Williamston	Duke Energy	2 unlined ponds	Arsenic (x2), Beryllium (x1), Boron (x1), Cobalt (x15), Lithium (x2), Molybdenum (x4), Radium 226+228 (x1)
Wateree	Eastover	Dominion	1 unlined pond, 1 lined pond, 1 landfill	Arsenic (x113), Boron (x1), Cobalt (x2), Lithium (x2)
Williams	Goose Creek	Dominion	1 lined pond, 1 landfill	Arsenic (x2), Boron (x10), Cobalt (x1), Radium 226+228 (x2)
Winyah*	Georgetown	Santee Cooper	5 unlined ponds, 1 landfill	Arsenic (x62), Boron (x7), Lithium (x10), Mercury (x11), Molybdenum (x6), Radium 226+228 (x1), Sulfate (x2)

* This plant operates inactive coal ash ponds at the facility but has not reported the ponds on its CCR Rule Compliance Data and Information website nor has the owner complied with the CCR rule’s requirements that apply to these ponds, including groundwater monitoring, closure, and corrective action. This is also the case at SC Electric & Gas Co’s Urquart Plant in Beech Island, SC.

For more information on regulated coal ash dumpsites in South Carolina, see earthjustice.org/coalash/map.

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Table 2: 15 Unregulated Coal Ash Legacy Ponds and Inactive Landfills in South Carolina (ash dumps exempted from the 2015 Coal Ash Rule)⁷

Coal Plant or Landfill	City	Probable Owner / Source	# of Unregulated Ponds ⁸	# of Unregulated Landfills	Evidence of Site Contamination ⁹
Canadys Steam	Canadys	SC Electric & Gas Co	3	1	Yes – EPA damage case
Cross	Cross	Santee Cooper	0	3	Yes – Industry data ^a and EPA damage case
Grainger	Conway	SC Public Service Auth	2	0	Yes – EPA damage case
Jefferies	Moncks Corner	SC Public Service Auth	2	0	Unknown – no data
McMeekin	Columbia	SC Electric & Gas Co	0	1	Yes – EPA damage case
Savannah River D-Area	Savannah River	DOE	0	1	Yes – EPA damage case
Urquhart	Beech Island	SC Electric & Gas Co	0	1	Yes – EPA damage case
Williams	Goose Creek	Dominion	0	1	Yes – Industry data ^a

^a Industry monitoring data posted on the plant’s CCR Compliance Data and Information website.

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Endnotes

- ¹ Earthjustice and Environmental Integrity Project, “Poisonous Coverup, The Widespread Failure of the Power Industry to Clean Up Coal Ash Dumps,” available at <https://earthjustice.org/document/poisonous-coverup>.
- ² American Coal Ash Association, 2020 CCP Production and Use Survey Report, <https://aca-usa.org/wp-content/uploads/2021/12/News-Release-Coal-Ash-Production-and-Use-2020.pdf>.
- ³ See endnote 1, “Poisonous Coverup,” *supra*, at Table A4, Summary of Contamination by Site.
- ⁴ See endnote 1, *supra*, for more information re widespread utility non-compliance with the 2015 Coal Ash Rule.
- ⁵ All data derived from the utilities’ publicly accessible [CCR Compliance Data and Information websites](#), and exceedances were calculated by Environmental Integrity Project.
- ⁶ Historical industry monitoring data is the basis of the finding of contamination. See [Ashtracker.org](#).
- ⁷ These data were developed by using EPA datasets relied upon in their 2007 and 2014 CCR risk assessments (Human and Ecological Risk Assessment of Coal Combustion Residuals) and comparing those datasets to the universe of regulated units.
- ⁸ All unlined coal ash ponds in South Carolina have been excavated or are in the process of excavation following litigation and advocacy by conservation groups in the state.
- ⁹ “EPA damage case” denotes a site where US EPA has found documented groundwater contamination from coal ash. See: <https://www.regulations.gov/document/EPA-HQ-RCRA-2009-0640-12123>.

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