

TENNESSEE VALLEY AUTHORITY'S TOXIC COAL ASH

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. The quasi-public utility, Tennessee Valley Authority (TVA), has a total of 56 coal ash dumpsites in Alabama, Kentucky, and Tennessee at 12 current and former coal plant sites. 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 polluting 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.

TVA has ten coal plants that host **29 federally regulated coal ash ponds and landfills** that contain approximately 119 million cubic yards of toxic waste (Table 1). At all of TVA's coal

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

plants, their own groundwater monitoring data indicate coal ash has caused significant groundwater contamination at regulated dumpsites. TVA has failed to initiate any plant-wide cleanups to restore water resources despite the legal requirement to do so.

TVA coal plants also host at least **27 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. These dumps are almost certainly contaminating water and threatening health and the environment, however, monitoring data are not currently available for most unregulated sites. Nevertheless, at all but one TVA plant with legacy ponds and landfills, current monitoring data and historical data both indicate significant groundwater contamination

Action Needed

The magnitude of harm from recklessly dumped toxic coal ash requires decisive action from federal and state regulators. TVA must be required to comply with the law and immediately clean up their pollution.³ EPA and states must make enforcement a priority and act quickly to ensure that TVA leaves 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 that are unregulated to ensure all of the communities near TVA's plants are protected from coal ash pollution.

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Table 1: 29 Regulated Coal Ash Disposal Sites at TVA Coal Plants

Coal Plant	City	State	Coal Ash Dumps	Groundwater Contamination from Coal Ash
				Magnitude of exceedance above federal health-based guidelines ⁴
Allen	Memphis	TN	1 unlined pond,	Arsenic (x294), Boron (x4), Fluoride (x1), Lead (x3), Molybdenum (x9)
Bull Run	Clinton	TN	2 unlined ponds, 1 landfill	Arsenic (x7), Boron (x9), Cobalt (x2), Lithium (x13), Molybdenum (x5), Sulfate (x3)
Colbert	Tuscumbia	AL	1 unlined pond	Arsenic (x4), Boron (x2), Cobalt (x4)
Cumberland	Cumberland City	TN	2 unlined ponds, 2 landfills	Arsenic (x1), Boron (x22), Cobalt (x3), Lithium (x2), Molybdenum (x1), Sulfate (x3)
Gallatin	Gallatin	TN	3 unlined ponds, 1 landfill	Arsenic (x2), Boron (x6), Cobalt (x2), Lithium (x41), Molybdenum (x2), Sulfate (x1)
John Sevier	Rogersville	TN	1 unlined pond	Lithium (x1)
Johnsonville	New Johnsonville	TN	1 unlined pond	Boron (x4), Cobalt (x9), Sulfate (x1)
Kingston	Kingston	TN	2 unlined ponds, 1 landfill	Arsenic (x16), Boron (x1), Cobalt (x20), Lithium (x10), Molybdenum (x5), Sulfate (x2)
Paradise	Drakesboro	KY	6 unlined ponds, 1 landfill	Arsenic (x9), Boron (x21), Molybdenum (x1)
Shawnee	West Paducah	KY	2 unlined ponds, 2 landfills	Boron (x2), Molybdenum (x3)

For more information on federally regulated coal ash sites in Alabama, Kentucky and Tennessee, see earthjustice.org/coalash/map.

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Table 2: 27 Unregulated Coal Ash Legacy Ponds and Inactive Landfills at TVA Coal Plants (ash dumps exempted from the 2015 Coal Ash Rule)⁵

Coal Plant or Landfill	City / County	State	# of Unregulated Ponds	# of Unregulated Landfills	Evidence of Site Contamination
Allen	Memphis	TN	0	1	Yes – Industry data and EPA damage case ^a
Bull Run	Clinton	TN	0	2	Yes – Industry data and EPA damage case ^a
Colbert	Tuscumbia	AL	0	2	Yes – Industry data and EPA damage case ^a
John Sevier	Rogersville	TN	0	2	Yes – Industry data and EPA damage case ^a
Kingston	Kingston	TN	0	1	Yes – Industry data and EPA damage case ^a
Paradise	Drakesboro	KY	0	2	Yes – Industry data and EPA damage case ^a
Shawnee	West Paducah	KY	0	1	Yes – Industry data and EPA damage case ^a
Watts Bar	Rhea County	TN	3	0	Unknown – no data
Widows Creek	Stevenson	AL	12	1	Yes – EPA damage case ^a

^a “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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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, *supra*, for more information re widespread utility non-compliance with the 2015 Coal Ash Rule.
- ⁴ All data derived from the utilities’ publicly accessible [CCR Compliance Data and Information websites](#), and exceedances were calculated by Environmental Integrity Project.
- ⁵ 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.

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