Toxic Coal Ash in North Dakota: Addressing Coal Plants' Hazardous Legacy

This fact sheet provides a summary of 37 coal ash dumpsites in North Dakota. Coal ash – the hazardous substance left after burning coal for electricity – is one of our nation's largest industrial waste streams. It contains hazardous pollutants, like arsenic, cobalt, chromium, lead and radium, which cause a wide range of serious harm to health and the environment. Industry data indicate that 91 percent of coal ash dumpsites nationwide are currently polluting groundwater above federal health standards with multiple carcinogenic and neurological toxins.[1]

During 100 years of coal burning, U.S. coal plants generated about 5 billion tons of coal ash, and they continue to produce about 70 million tons every year. Most of this ash sits in unlined settling ponds and landfills, with minimal protections to prevent spills or leaking of hazardous chemicals. Despite EPA's 2015 Coal Ash Rule, which created the first-ever safeguards for coal ash disposal, most coal ash dumps remain unregulated due to sweeping exemptions for legacy coal ash ponds and inactive landfills.

North Dakota is one of the nation's top coal ash-generating states, ranking ninth in ash production in 2020.[2] North Dakota utilities operate **16** regulated coal ash ponds and landfills at 7 plants that contain more than 58 million cubic yards of toxic waste (Table 1). Coal ash has caused significant groundwater contamination at all but one North Dakota plant. Despite the widespread and serious contamination, no North Dakota plant has developed a groundwater cleanup plan, and most plants in the state no longer even monitor the groundwater for toxic heavy metals. ,

In addition, North Dakota hosts **21 unregulated** inactive coal ash landfills and legacy ponds at 8 active and retired coal plants (Table 2). This total likely underestimates the problem, but the exact number is unknown because utilities are not required to report these sites. Almost certainly, these dumps are also contaminating water and threatening health and the environment.

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.[3] Second, EPA must swiftly strengthen the 2015 Coal Ash Rule to address the many legacy ponds and inactive landfills that are currently exempted from the rule to ensure the protection of ensure all North Dakota communities.

Table 1: Regulated Coal Ash Disposal Sites in North Dakota

[1] Earthjustice and Environmental Integrity Project, "Poisoning Coverup, The Widespread Failure of the Power Industry to Clean Up Coal Ash Dumps," *available at* https://earthjustice.org/sites/default/files/press/2022/coal-ash-report_poisonous-coverup_earthjustice.pdf

[2] Leading states by primary energy consumption from coal in the United States in 2020, https://www.statista.com/statistics/189862/leading-us-states-in-energy-consumption-from-coal/

[3] *See* footnote 1, s*upra*, for more information re widespread utility non-compliance with the 2015 Coal Ash Rule.

Coal Plant	City	Owner	Coal Ash Dumps	Groundwater Contamination from Coal Ash (magnitude of exceedance above federal health-based guidelines)[4]
Antelope Valley	Beulah	Basin Electric	1 landfill	Molybdenum (x1)
Coal Creek	Underwood	Great River	3 unlined ponds, 1 landfill	Arsenic (x2), Boron (x15), Cobalt (x5), Lead (x2), Lithium (x17), Sulfate (x11)
Coyote	Beulah	Otter Tail	3 unlined ponds, 1 landfill	Arsenic (x1), Boron (x2), Cobalt (x5), Selenium (x2), Sulfate (x10)
Leland Olds	Stanton	Basin Electric	2 unlined ponds, 1 landfill	Arsenic (x1), Boron (x2), Fluoride (x1), Lithium (x3), Molybdenum (x2), Sulfate (x4)
Milton Young	Center	Minnkota Power Coop	1 unlined pond	No contaminants exceeding federal standards
RM Heskett	Mandan	MT-Dakota Utilities	1 landfill	Lithium (x54), Sulfate (x22)
Stanton	Stanton	Great River Energy	1 unlined pond, 1 landfill	Arsenic (x17), Boron (x2), Lead (x1), Molybdenum (x2)

For more information on regulated coal ash sites in North Dakota and throughout the U.S, see www.earthjustice.org/coalash/map.

Table 2: Unregulated Coal Ash Legacy Ponds and Inactive Landfills in North Dakota (ash dumps exempted from the 2015 Coal Ash Rule)[5]

Coal Plant	City	Probable Owner	# of Unregulated Ponds	# of Unregulated Landfills	Evidence of Site Contamination[6]
Antelope Valley	Beulah	Basin Electric Power Coop	0	1	Yes- Industry data
Coal Creek	Underwood	Great River Energy	0	5	Yes – Industry data and EPA damage case
Coyote	Beulah	Otter Tail Power Co	0	3	Yes – Industry data
Leland Olds	Stanton	Basin Electric Power Coop	0	1	Yes – Industry data and EPA damage case
Milton Young	Center	Minnkota Power Coop	0	7	No known contamination
RM Heskett	Mandan	Montana-Dakota Utilities	0	1	Yes – Industry data and EPA damage case
Stanton	Stanton	Great River Energy	0	2	Yes – Industry data
WJ Neal	Velva	Basin Electric Power Coop	1	0	Yes – EPA damage case

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[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 using EPA datasets relied upon in their Draft 2007 Risk Assessment and their 2014 Risk Assessment and comparing those datasets to the universe of regulated units.
[6] "EPA damage case" denotes a site where US EPA has found documented groundwater contamination from coal ash. *See* https://www.regulations.gov/EPA-HQ-RCRA-2009-0640-12123.