

TOXIC COAL ASH NEAR THE GREAT LAKES

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. There are 88 coal ash dumpsites within two miles of one of the Great Lakes. 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 landfills 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.

Utilities operating coal plants within two miles of a Great Lake operate **34 federally regulated coal ash ponds and landfills** at 16 plants that contain more than 57 million cubic yards of toxic waste (Table 1). At all but two of these coal plants, industry monitoring data indicate coal ash has caused significant groundwater contamination at regulated dumpsites. The utilities, however, have failed to

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

initiate any plant-wide cleanups to restore water resources despite the legal requirement to do so.

Utilities operating coal plants within two miles of a Great Lake operate host at least **54 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. 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.³ 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 that are unregulated, and to prohibit coal ash used as fill unless protective measures are put in place, to ensure all Great Lakes communities are protected from coal ash pollution.

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Table 1: 34 Regulated Coal Ash Disposal Sites within Two Miles of Great Lakes

Coal Plant	State	Owner	Coal Ash Dumps	Groundwater Contamination from Coal Ash Magnitude of exceedance above federal health-based guidelines ⁴
Waukegan	IL	Commonwealth Edison Co.	2 unlined ponds	Sulfate (x1)
Bailly	IN	Northern Indiana Pub Serv Co	4 unlined ponds	Arsenic (x8), Cadmium (x2), Lithium (x2), Molybdenum (x16), Thallium (x5)
Michigan City*	IN	Northern Indiana Public Service Company	2 unlined ponds	Arsenic (x4), Boron (x2), Selenium (x1), Thallium (x2)
Dan E Karn	MI	Consumers Energy Co	1 unlined pond	Arsenic (x45), Boron (x2), Lead (x2), Molybdenum (x1), Sulfate (x1)
J H Campbell	MI	Consumers Energy Co	3 unlined ponds, 1 landfill	Antimony (x3), Arsenic (x29), Cobalt (x2), Lithium (x2), Molybdenum (x3), Selenium (x1), Thallium (x1)
J R Whiting	MI	Consumers Energy Co	2 unlined ponds	Cobalt (x1), Lithium (x2), Thallium (x1)
Presque Isle	MI	We Energies	1 landfill	No contaminants exceeding
J B Sims	MI	Grand Haven Board of Light and Power	2 unlined ponds	Arsenic (x12), Boron (x75), Cobalt (x1), Fluoride (x4), Lithium (x50), Sulfate (x2)
J C Weadock	MI	Grand Haven Board of Light and Power	1 unlined pond, 1 landfill	Arsenic (x8), Beryllium (x3), Boron (x2), Cobalt (x2), Lithium (x6), Molybdenum (x3), Sulfate (x4), Thallium (x1)
Monroe	MI	DTE Electric Co.	2 unlined ponds, 1 landfill	Boron (x1), Lithium (x3), Sulfate (x3)
Shiras	MI	Marquette Board of Light & Power	1 unlined pond	Cobalt (x1), Lead (x2)
Taconite Harbor	MN	Minnesota Power	1 landfill	No contaminants exceeding
AES Somerset LLC	NY	Somerset Operating Company, LLC	1 unlined pond, 1 landfill	Antimony (x4), Arsenic (x1), Boron (x69), Cobalt (x4), Lithium (x6), Sulfate (x4)

(Table continues on the next page)

* 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.

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Table 1, continued: 34 Regulated Coal Ash Disposal Sites within Two Miles of Great Lakes

Coal Plant	State	Owner	Coal Ash Dumps	Groundwater Contamination from Coal Ash Magnitude of exceedance above federal health-based guidelines ⁴
Dunkirk Generating Plant	NY	NRG	1 landfill	Antimony (x3), Thallium (x2)
Edgewater	WI	Wisconsin Power & Light Co.	4 unlined ponds, 1 landfill	Arsenic (x2), Boron (x5), Cobalt (x1), Lithium (x1), Molybdenum (x55)
South Oak Creek	WI	We Energies	1 landfill	Molybdenum (x1)

For more information on regulated coal ash dumpsites near the Great Lakes, see earthjustice.org/coalash/map.

Table 2: 54 Unregulated Coal Ash Legacy Ponds and Inactive Landfills near Great Lakes (ash dumps exempted from the 2015 Coal Ash Rule)⁵

Coal Plant or Landfill	State	Probable Owner / Source	# of Unregulated Ponds	# of Unregulated Landfills	Evidence of Site Contamination
Waukegan	IL	Commonwealth Edison Co.	0	1	Yes – EPA damage case ^a
Bailly	IN	Northern Indiana Pub Serv Co	0	2	Yes – EPA damage case ^a
Michigan City	IN	Northern Indiana Pub Serv Co	0	1	Yes – EPA damage case ^a
Dean H Mitchell	IN	Northern Indiana Pub Serv Co	8	0	Unknown – no data
State Line Energy	IN	State Line Energy LLC	1	0	Unknown – no data
Dan E Karn	MI	Consumers Energy Co	0	1	Yes – Industry data ^b
Harbor Beach	MI	Detroit Edison Co	3	0	Unknown – no data
J H Campbell	MI	Consumers Energy Co	0	6	Yes – EPA damage case ^a
J R Whiting	MI	Consumers Energy Co	0	2	Yes – EPA damage case ^a

(Table continues on the next page)

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Coal Plant or Landfill	State	Probable Owner / Source	# of Unregulated Ponds	# of Unregulated Landfills	Evidence of Site Contamination
Presque Isle	MI	We Energies	0	2	Yes – EPA damage case ^a
Taconite Harbor Energy Center	MN	Minnesota Power	0	4	Unknown – no data
AES Somerset LLC	NY	Somerset Operating Company, LLC	0	2	Yes – Industry data ^b
Avon Lake	OH	GenOn Power Midwest LP	2	1	Unknown – no data
FirstEnergy Ashtabula	OH	FirstEnergy Generation Corp	1	0	Unknown – no data
FirstEnergy Bay Shore	OH	FirstEnergy Generation Corp	1	1	Unknown – no data
FirstEnergy Eastlake	OH	FirstEnergy Generation Corp	1	1	Unknown – no data
FirstEnergy Lake Shore	OH	FirstEnergy Generation Corp	1	0	Unknown – no data
Bay Front	WI	Northern States Power Co - Minnesota	0	2	Yes – EPA damage case ^a
Port Washington Generating Station	WI	Wisconsin Electric Power Co.	0	1	Yes – EPA damage case ^a
Pulliam	WI	Wisconsin Public Service Corp	1	1	Yes – EPA damage case ^a
Valley	WI	Wisconsin Electric Power Co	0	4	Yes – EPA damage case ^a
Edgewater	WI	Wisconsin Power & Light Co.	0	1	Yes – EPA damage case ^a
South Oak Creek	WI	We Energies	0	2	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>.

^b Historical industry monitoring data is the basis of the finding of contamination. *See* Ashtracker.org.

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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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