EARTHJUSTICE

COAL ASH DISPOSAL AND REUSE IN WISCONSIN

Summary of Coal Ash Generating Facilities in WI[i]

Plant	Operator	Pond/Landfill	County
Columbia Power Station	Wisconsin Power & Light Co.	4 ponds/landfill*	Columbia
Nelson Dewey Generating Station	WI Power & Light Co/Alliant Energy	2 ponds	Grant
Rock River Generating Plant	Alliant Energy	4 ponds	Rock
NSP-W Bay Front Plant	Xcel Energy	2 ponds	Ashland
Pleasant Prairie	We Energies	EPA has not Provided data	Kenosha
South Oak Creek	We Energies	EPA has not provided data	Milwaukee
Weston 4	Wisconsin Public Service Corp.	EPA has not provided data	Marathon
Green Bay West Mill	Fort James Operating Co.	landfill*	Brown
Edgewater (WPL)	Wisconsin Power & Light Co.	6 ponds/landfill*	Sheboygan
Valley (WEP)	We Energies	EPA has not provided data	Milwaukee
Pulliam	Wisconsin Public Service Corp	EPA has not provided data	Brown
John P. Madgett	Dairyland Power Co-op	landfill*	Buffalo
Genoa	Dairyland Power Co-op	landfill	Vernon
Alma	Dairyland Power Co-op	landfill	Buffalo
Blount Street	Madison Gas & Electric Co.	EPA has not Provided data	Dane
Univ of Wisc Madison Charter Sreet Plant	State of Wisconsin	EPA has not Provided data	Dane
Milwaukee County	Wisconsin Electric Power Co	EPA has not Provided data	Milwaukee
E J Stoneman Station	DTE Stoneman LLC	EPA has not Provided data	Grant
Menasha	City of Menasha	EPA has not Provided data	Winnebago

Amount of coal ash generated per year**:** 1.4 million tons. Wisconsin ranks 28th in the nation for coal ash generation.[ii]

Number of Coal Ash Ponds: 18 ponds at 5 plants.[iii]

Aging Fleet of Ponds: None of Wisconsin's coal ash ponds are less than 24 years old, and 15 ponds are over 30 years old. One pond at the Nelson Dewey Generating Station is over 50 years old. The age of these ponds makes it unlikely that they have safeguards like liners and leachate collection. According to a 2010 EPA risk assessment, four coal ash ponds and landfills in Wisconsin are currently unlined and three are only clay-lined.[iv] Of these sites four have no leachate collection systems.[v]

Cases of coal ash contamination in Wisconsin (Damage cases): According to EPA, WI has the distinction of having *the most documented sites* contaminated by coal ash in the U.S. According to EPA, the following 11 sites have been contaminated by ash:[vi]

- Dairyland Power Co-op, E.J. Stoneman Generating Station Ash Disposal Pond. Contamination of groundwater by an unlined ash pond with cadmium, chromium, sulfate, manganese, iron and zinc.
- WEPCO Highway 59 Landfill. Coal ash in an unlined sand and gravel pit contaminated groundwater and private wills with sulfate, boron, manganese, chloride, and iron.
- Alliant Nelson Dewey Ash Disposal Facility. Unlined ponds contaminated groundwater with arsenic, selenium, sulfate, boron, and fluoride.
- WEPCO Cedar-Sauk Landfill. Unlined sand and gravel pit contaminated groundwater with selenium, boron, and sulfate.
- Wisconsin Electric Power Co. Port Washington Facility. Disposal in a unlined quarry contaminated groundwater with selenium in in close proximity to drinking water wells."
- Alliant Rock River Ash Disposal Facility, Beloit: Arsenic, mercury, sulfate and iron found in groundwater.
- Alliant Edgewater 1-4 Ash Disposal Site: Arsenic, boron, sulfate and iron found in groundwater near landfill.
- Wisconsin Power Supply Co. Pulliam Ash Disposal Site: Sulfate, manganese and iron found in groundwater onsite.
- Dairyland Power Alma On-site Fly Ash Landfill: Sulfate and manganese found on-site.

- Dairyland Power Alma Off-site Fly Ash Landfill: Sulfate and manganese found on-site.
- Lemberger Landfill, Manitowoc County: National Priorities List Superfund Site.[vii]

In addition, Earthjustice, Environmental Integrity Project and Sierra Club, documented two additional sites contaminated by coal ash:[viii]

- Columbia Energy Center, WI Power and Light Co, Pardeeville: Ecological studies in the late 1970s identified devastating impacts on aquatic life in a stream receiving discharge from ash ponds wiping out nearly all aquatic insects for 2.2 miles downstream; and
- Oak Creek Power Plant, WE Energies, Oak Creek: Twelve private drinking wells near the Oak Creek and Caledonia coal ash landfills have been contaminated with molybdenum. WE Energies started providing bottled water to residents in 2009.

We Energies Bluff Collapse: On October 31, 2011, a bluff collapsed at the We Energies Oak Creek Plant in Oak Creek, Wisconsin. Coal ash—along with mud, a pickup truck, dredging equipment, and other debris—gushed into Lake Michigan. Coal ash had been used to fill a ravine on the site over 50 years ago.[ix] This spill points to the statewide problem of old disposal sites that have not been identified and are not being monitored for potential harm.

Oak Creek Spill

Wisconsin State Regulatory Program and Recycling of Coal Ash: WI's program requires groundwater monitoring at many of its disposal sites. WI also requires all landfills be constructed with composite liners. Because of the greater relative stringency of disposal regulations, in comparison to other states, WI utilities have greater incentive to recycle their coal ash. In fact, higher disposal costs in WI have led to a state recycling rate of at least 85%, more than double the average ash recycling rate in all other states (36%).[x]

Regulations in WI, however, could be more protective. The deficiencies in WI regulations include: (1) Groundwater monitoring is discretionary, not mandatory, at landfills. WI ADC s NR 507.04; (2) Regulations do not specify the location and number of wells. WI ADC s NR 507.19(1), (3) Regulations do not specify a post-closure monitoring period. WI ADC s NR 514.06(11), and (4) Daily cover is not required. WI ADC s NR 506.05(2).

For more information, contact Lisa Evans, Earthjustice, 781-631-4119, levans@earthjustice.org.

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[i] U.S. EPA. Database of coal combustion waste surface impoundments (2009). Information collected by EPA from industry responses to Information Collection Request letters issued to the companies on March 9, 2009.

[ii] U.S. Department of Energy's Energy Information Administration Operation and Design Data. 2005.Form EIA-767, Annual Steam-Electric Plant Operation and Design Data. 2005.

[iii] *Id*.

[iv] US EPA, Human and Ecological Risk Assessment of Coal Combustion Wastes, Draft, April 2010.

[v] Id.

[vi] U.S. EPA, Office of Solid Waste. *Coal Combustion Waste Damage Case Assessments* (July 9, 2007).

[vii] http://www.epa.gov/R5Super/npl/wisconsin/WID980901243.htm.

[viii] Environmental Integrity Project, Earthjustice and the Sierra Club. In Harm's Way: Lack of Federal Coal Ash Regulations Endangers Americans and their Environment, August 26, 2010, http://earthjustice.org/sites/default/files/files/report-in-harms-way.pdf.

[ix] Meg Jones and Don Behm, "Bluff collapse at pover plant sends dirt, coal ash into lake," Milwaukee-Wisconsin Journal Sentinel (Oct. 31, 2011), *available at* http://www.jsonline.com/news/milwaukee/authorities-investigate-bluff-collapse-at-we-energies-plant-132929538.html. See also Rachel Maddow, "in coal ash we trust," aired November 1, 2010 at http://www.msnbc.msn.com/id/26315908.

[x] U.S. Department of Energy (2004). Coal Combustion Waste Management at Landfill and Surface Impoundments 1994-2004, DOE/PL-004,