



Ohio and Coal Ash Disposal in Ponds and Landfills

Summary:¹

Plant	Operator	# of ponds	County
Cardinal Power Station	Cardinal Operating	5 unlined ponds/ 1 landfill	Jefferson
Conesville Power Station	Columbus Southern Power	2 ponds/ landfill*	Coshocton
Picway Power Station	Columbus Southern Power	1 pond	Pickaway
J. M. Stuart (DP&L) Power Station	Dayton Power & Light	9 ponds/2 landfills	Adams
Killen Station	Dayton Power & Light .	4 ponds/2 unlined	Adams
Kyger Creek Power Station	Ohio Valley Electric	6 ponds (3 unlined)/1 landfill	Gallia
Miami Fort Generating Station	Duke Ohio Inc.	4 ponds (2 unlined)/2 landfills	Hamilton
O.H. Hutchings Station	Dayton Power & Light	3 unlined ponds	Montgomery
Muskingum River Power Station	Ohio Power	4 unlined ponds/1 landfill	Washington
General James M. Gavin Power Station	Ohio Power	4 ponds (2 unlined)/1 landfill	Gallia
Walter C. Beckjord Power Station	Duke Ohio	5 ponds (4 unlined)/ 2 landfill (1 unlined)	Clermont
W. H. Zimmer Power Station	Duke Ohio	5 ponds/1 landfill	Clermont
W. H. Sammis	First Energy Generation	2 unlined ponds/landfill	Jefferson
Bay Shore	First Energy Generation	1 unlined pond	Lucas
Eastlake	First Energy Generation .	1 unlined pond, 1 landfill	Lake
Avon Lake	Reliant Energy	2 unlined ponds	Lorain
Niles (ORION)	Reliant Energy	5 unlined ponds	Trumbull
Richard H. Gorsuch	American Mun. Power-Ohio	landfill*	Washington
O. H. Hutchings	Dayton Power & Light	3 ponds	Montgomery
R. E. Burger	First Energy Generation	2 unlined ponds	Belmont
Ashtabula (FIRGEN)	First Energy Generation	Not known	Ashtabula
Hamilton (HAMI)	City of Hamilton	Not known	Butler
Lake Shore	First Energy Generation	1 unlined pond	Cuyahoga
		69 ponds	

*indicates one or more coal ash landfills.²

Amount of coal ash generated per year: Over 10 million tons. OH ranks 3rd in the country for coal ash generation.³

Number of Coal Ash Ponds in Ohio: 69 ponds at 23 plants.⁴ 8 ponds rated “high hazard” 17 are “significant hazard.”⁵ 13 ponds are rated as “Poor” under the EPA condition assessment.

Landfills: The US EPA has not yet gathered information on coal ash disposal in landfills. However, according to a 2010 EPA risk assessment, at least seven ponds and landfills in Ohio are unlined, and five are only clay-lined. Of these sites, at least seven do not have a leachate collection system, and four lack groundwater monitoring.⁶

Age of Ponds: 19 ponds are over 36 years old and 11 of those are over 40 years old.⁷ The age of these ponds makes it unlikely that they have safeguards like liners and leachate collection systems.

Stability and Safety Issues at Ohio coal ash ponds:

According to EPA, ponds at the Cardinal and Beckjord plants have had documented releases.⁸ In addition, EPA’s 2009 inspections of coal ash ponds resulted in ratings of “poor” for 10 high hazard and significant hazard coal ponds in Ohio.⁹

¹ United States Environmental Protection Agency (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.

² U.S. Department of Energy’s Energy Information Administration, Form EIA-767, Annual Steam-Electric Plant Operation and Design Data. 2005.

³ U.S. EPA and United States Department of Energy (U.S. DOE). *Coal Combustion Waste Management at Landfills and Surface Impoundments, 1994-2004* (August 2006).

⁴ U.S. EPA. Database of coal combustion waste surface impoundments (2009).

⁵ *Id.*

⁶ US EPA. *Human and Ecological Risk Assessment of Coal Combustion Wastes, Draft* (April 2010).

⁷ *Id.*

⁸ U.S. EPA. Database of coal combustion waste surface impoundments (2009).

⁹ <http://www.epa.gov/epawaste/nonhaz/industrial/special/fossil/surveys2/index.htm>.



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- Ohio Valley Electric Corporation, Kyger Creek Power Station, Gallipolis: Two high hazard ponds rated poor; neither pond was designed, constructed or monitored by a professional engineer.
- Duke Energy, Beckjord Station, New Richmond: Four significant hazard ponds were rated poor.
- AEP, Muskingum River Power Plant, Waterford: One significant hazard pond was rated poor.
- Dayton Power and Light, JM Stuart Station, Aberdeen: Three significant hazard ponds were rated poor.

Documented Contamination at Coal Ash Disposal Sites in Ohio:

According to the U.S. EPA's Damage Case Assessment, contamination at the following sites was documented:¹⁰

- Cincinnati Gas & Electric Co. Miamiview Landfill: Sulfate above federal standards found in offsite wells.
- Cinergy W.C. Beckjord Station: Selenium and sulfate contaminated public water supply well.
- Conesville Fixed FGD Sludge Landfill: Onsite exceedances of arsenic, cadmium, chromium, selenium, calcium, magnesium, total dissolved solids, sulfate and iron in groundwater.

Additional Damage Cases: Earthjustice, Environmental Integrity Project, and Sierra Club documented four additional sites contaminated by coal ash based on monitoring data submitted to Ohio EPA:¹¹

- Cardinal Plant, American Electric Power, Brilliant: Monitoring of the ash landfill shows groundwater is contaminated with alpha activity, arsenic, barium, cadmium, lead and molybdenum. A residential subdivision that relies on private drinking water wells is in the direct groundwater path of the fly ash reservoirs.
- Gavin Power Plant, American Electric Power, Cheshire: Monitoring shows exceedances for alpha particles (up to 8.5 times the federal standard), a notable increase in barium, and iron and sulfate substantially exceeding standards in groundwater. Arsenic and mercury exceed federal standards by more than 3 times in the seepage from the pond dike. There are at least 63 wells within 1.5 miles of the fly ash pond. Human exposure to contaminants may occur if fish is consumed from nearby surface waters.
- Industrial Excess Landfill Superfund Site, Uniontown: This site has been designated a Superfund Site by the EPA. Exceedances for antimony, arsenic, beryllium, cadmium, chromium and lead have been documented in offsite residential wells. Radionuclides and anthropogenic radioisotopes have migrated into nearby residential areas. There are 90 private wells within 1500 feet of the site and documented cases of residents drinking contaminated well water.
- Muskingum River Plant, American Electric Power, Beverly: Groundwater at this unlined ash landfill contains selenium up to 37 times, arsenic up to 6 times, lead up to 13 times, and barium up to 4 times federal standards. Chromium and thallium also exceed federal standards. Vanadium is 9 times state standards. Forty-eight drinking water wells are within 1.5 miles of the plant; two wells are 0.25 miles from the plant.

Ohio Regulatory Program: Ohio regulations are among the absolute worst in the nation. They utterly fail to require coal ash ponds and landfills to maintain basic safeguards that would prevent the migration of harmful contaminants. Because Ohio exempts coal ash from its definition of solid waste, coal ash escapes regulatory controls applicable to most waste streams. Consequently, state regulations fail to require all new and existing coal ash ponds and landfills to monitor groundwater or install composite liners. The state does not prohibit coal ash ponds from being constructed in the water table, nor does the state require ponds or landfills to have financial assurance that would ensure funds for a clean up in the event of a spill. Lastly, despite the widespread practice of storing coal ash in ponds and its history of release and poor maintenance, Ohio does not require regulatory inspections of ponds for structural stability.

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¹⁰ U.S. EPA. *Coal Combustion Waste Damage Case Assessments* (July 9, 2007).

¹¹ Environmental Integrity Project and Earthjustice. *Out of Control: Mounting Damages from Coal Ash Waste Sites*, February 24, 2010, available at <http://earthjustice.org/sites/default/files/library/reports/ej-eipreportout-of-control-final.pdf>.