

Coal Ash in North Dakota

Coal-Fired Power Plants in North Dakotaⁱ

| Plant | Operator | Landfill | Pond | County |
|--------------------------|---------------------------|-----------|-----------|--------|
| Antelope Valley | Basin Electric Power Coop | 2 | 4 | Mercer |
| Coal Creek | Great River Energy | 3 | 3 | Mercer |
| Coyote | Otter Tail Power Company | 4 | 2 | Mercer |
| Leland Olds | Basin Electric Power Coop | 2 | 3 | Mercer |
| Milton R Young | Minnkota Power Coop Inc | 7 | 6 | Oliver |
| R M Heskett | MDU Resources Group | 2 | 1 | Morton |
| Staton | Great River Energy | 3 | 6 | Mercer |
| Total # of Plants | | 23 | 25 | |

How Safe Are North Dakota's Coal Ash Dumps

| Plant | Average Age of Ponds/Landfills | Units with Liners* | Units with Leachate Collection Systems | Ponds Rated High or Significant Hazard* | Ponds in Poor Condition* |
|-----------------|--------------------------------|--------------------|--|---|--------------------------|
| Antelope Valley | 29 | 6 | 1 | | |
| Coal Creek | 33 | 6 | 3 | | |
| Coyote | 31 | 4 | 0 | | |
| Leland Olds | 37 | 1 | 0 | 2 significant | 2 |
| Milton R Young | 24 | 9 | 7 | 2 significant | |
| R M Heskett | Unknown | 2 | 1 | | |
| Staton | 18 | 9 | 0 | | |

*Presence of a "liner" does not mean that it is adequate to prevent contaminants from leaking. Inadequate "liners" may be constructed of soil, ash, clay or single layers. Information is not sufficient to determine liner adequacy.

**Hazard and condition ratings not available for all units.

Amount of coal ash generated per year in North Dakota: Over 3 million tons. ND ranks 14th in the country for coal ash generation.ⁱⁱ

Documented Contamination at Six Coal Ash Disposal Sites in North Dakota:

- Antelope Valley, Beulah, ND: In 2010, the Antelope Valley Power Station was determined to be contaminated after groundwater monitoring data showed exceedances in state and/or federal standards for arsenic.ⁱⁱⁱ There are two public water supplies within five miles of the plant.^{iv}
- Leland Olds, Stanton, ND: In 2010, the Antelope Valley Power Station was determined to be contaminated after groundwater monitoring data showed exceedances in state and/or federal standards for arsenic and lead. Groundwater at Leland Olds also contains elevated selenium and boron. Fish and irrigation water from the Missouri River could be at risk.^v

- Coal Creek Station Surface Impoundments, Underwood, ND: In a 2007 study by the US EPA, the Coal Creek Station was determined to be contaminated after groundwater monitoring data showed exceedances in state and/or federal standards for arsenic, selenium, boron, chloride and sulfate. The presence of coal ash and comanaged wastes was also documented.
- W.J. Neal Station Surface Impoundments, Velva, ND: Chromium, antimony, arsenic, chromium, manganese, selenium, and sodium elevated above background. Coal ash and sludge; comanaged wastes probable^{vi} The cadmium, lead, and zinc exceedances occurred in a public water supply well.^{vii}
- R.M. Heskett Station, Mandan, ND: This site was classified as a proven contaminated site by the US EPA based on a scientific observation of off-site exceedances of state and/or federal health-based standard sulfate and boron.
- Coyote Station, Beulah, ND: Groundwater monitoring data obtained through a Freedom of Information Act request show a history of exceedances of state and/or federal standards for iron, arsenic, manganese, and sulfate. Additionally, field pH & TDS were exceeded in both upgradient and downgradient wells over the last five years.

Deficiencies of the North Dakota Regulatory Program:

North Dakota regulations do not adequately protect public health and the environment from the toxic substances in coal ash because they do not require basic safeguards at coal ash dumps. State regulations: (1) fail to require all coal ash ponds and landfills to conduct monitoring of groundwater for leaks; (2) fail to require all new ponds and landfills to install composite liners to prevent migration of hazardous substances; (3) fail to prohibit construction of coal ash dumps directly in the water table; and (4) fail to require all coal ash ponds and landfills to have financial assurance (bonds) sufficient to cover cleanup costs if contamination occurs. Furthermore, North Dakota fails to require any inspection of coal ash ponds by state regulators or owner/operators, nor do the regulations require emergency response plans in the event of a failure.

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ⁱ U.S. Department of Energy's Energy Information Administration, Form EIA-767, Annual Steam-Electric Plant Operation and Design Data. 2005, available at <http://www.eia.gov/cneaf/electricity/page/eia767/>; Information Request Responses from Electric Utilities, U.S. ENVTL PROT. AGENCY (Jan. 13, 2012), <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/surveys/> (follow link to Database Results (XLS)); Data from US EPA Office of Water, Information Collection Request. Data received from US EPA pursuant to FOIA, July 2012.

ⁱⁱ U.S. Department of Energy's Energy Information Administration, Form EIA-767, Annual Steam-Electric Plant Operation and Design Data. 2005, available at <http://www.eia.gov/cneaf/electricity/page/eia767/>.

ⁱⁱⁱ EIP, Earthjustice, Sierra Club. *In Harm's Way: Lack of Federal Coal Ash Regulations Endangers Americans and their Environment*, August 26, 2010, available at <http://earthjustice.org/sites/default/files/files/report-in-harms-way.pdf>

^{iv} Environmental Integrity Project, Earthjustice and Sierra Club. *In Harm's Way: Lack of Federal Coal Ash Regulations Endangers Americans and Their Environment* xix (Aug. 2010).

^v *Id.*

^{vi} EIP 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-cipreportout-of-control-final.pdf>.

^{vii} U.S. EPA. Coal Combustion Waste Damage Case Assessments 35-6 (July 9, 2007).