



Nevada and Coal Ash Disposal and Contamination

Summary of Coal Ash Generating Facilities in Nevadaⁱ

Coal-Fired Power Plant	Operator	Disposal Sites	County
Mohave	Southern California Edison Co.	landfill*	Clark
North Valmy	Sierra Pacific Power Co.	5 ponds, landfill*	Humboldt
Reid Gardner (NEVP)	Nevada Power Co.	8 ponds, landfill*	Clark
Fort Churchill	Sierra Pacific Power Co.	Data indeterminate	Lyon

*indicates one or more coal ash landfills.ⁱⁱ

Amount of coal ash generated per year: Over 772,000 tons. Nevada ranks 36th in the country for coal ash generation.ⁱⁱⁱ

Coal Ash Ponds: The Reid Gardner power plant maintains eight ponds, all of which are rated “significant hazard” ponds.^{iv} A “significant hazard” pond is defined as one that will cause economic and/or environmental damage in the event of failure. The total capacity of the eight coal ash ponds at Reid Gardner is 338 million gallons.

Coal Ash Landfills: Coal is disposed in landfills at Nevada’s four coal-fired power plants. The Mohave, North Valmy, Reid Gardner and Fort Churchill power plants disposed of 427,900, 201,800, 141,700 and 200 tons of coal ash, respectively, in 2005.^v

Coal Ash Contamination at Nevada Power Plants:

- **Reid Gardner Power Plant:** Groundwater data show that arsenic, chromium, boron, chloride, sulfate, TDS, nitrate, manganese, magnesium, molybdenum, selenium, sodium, vanadium, and titanium exceed Nevada action levels and drinking water standards. The Nevada Department of Environmental Protection determined that coal ash contamination from impoundments at the Reid Gardner Generating Station spread from the dumpsite, and found arsenic as high as 31 times the federal drinking water standard in an off-site well. Arsenic levels in onsite groundwater exceed federal drinking water standards by 73 times. In response to the contamination, the State of Nevada issued a 1997 order to stop the migration of contaminants. In addition, fugitive dust from the coal ash dumps adversely affects the health of the Moapa Tribe of Paiutes, whose reservation abuts the plant.^{vi}



Dust shrouds the Moapa River Indian Reservation, tribal home of the Moapa Band of Paiutes near the Reid Gardner Power Plant.

• **North Valmy Generating Station:** The five evaporation ponds at the North Valmy power plant have had a long history of tears, leaks, and repairs. Groundwater wells indicate arsenic pollution consistently over 10 times the federal drinking water standard during the past three years, with a maximum concentration of 26 times the drinking water standard. Other pollutants in the groundwater from coal ash include fluoride and manganese. Naturally-occurring arsenic and fluoride in the groundwater may contribute to the high levels detected at the plant.



Mohave Power Plant with coal ash ponds.

Nevada Regulatory Program: Nevada regulations fail to require coal ash ponds and landfills to maintain basic safeguards to prevent the migration of harmful contaminants to groundwater and surface water. For example:

- State regulations fail to require all new and existing coal ash ponds to monitor groundwater around disposal units;
- State regulations fail to require leachate collection systems at coal ash ponds;
- State regulations fail to require composite liners for all new coal ash ponds;
- State regulations do not require financial assurance for coal ash ponds to assure funds for cleanup in the event of a breach or leak.

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ⁱ 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)); West Virginia DEP, *Fly Ash Dam/Landfill Condition Evaluation* (November 2009), http://www.dep.wv.gov/WWE/ce/ds/Documents/Status_WV_Fly_Ash_Dams_Landfills_Nov609.pdf.

ⁱⁱ U.S. Department of Energy's Energy Information Administration, Form EIA-767, Annual Steam-Electric Plant Operation and Design Data. 2005; West Virginia DEP, *Fly Ash Dam/Landfill Condition Evaluation* (November 2009), http://www.dep.wv.gov/WWE/ce/ds/Documents/Status_WV_Fly_Ash_Dams_Landfills_Nov609.pdf.

ⁱⁱⁱ U.S. Energy Information Administration in 2005.

^{iv} Coal Combustion Residuals Impoundment Assessment Reports: Summary Table for Impoundment Reports, U.S. ENVTL PROT. AGENCY (Oct. 12, 2011), <http://www.epa.gov/osw/nonhaz/industrial/special/fossil/surveys2/> (follow link to Summary Table for Impoundment Reports (XLS))

^v *Id.*

^{vi} See <http://earthjustice.org/illwind>.