

## IPL Harding Street Generating Station – Indianapolis Facts about the coal ash lagoons and closure plan



Indianapolis Power & Light (IPL) has filed a plan to close its coal ash lagoons at the Indianapolis Harding Street plant, but without addressing serious underlying groundwater contamination. The plan is under review by the Indiana Department of Environmental Management and **public comments are due December 5th. Comments should be directed to:**

Kristen Clason, Permit Manager  
Solid Waste Permit Section, Permits Branch  
Office of Land Quality  
Indiana Department of Environmental Management  
[KClason@idem.in.gov](mailto:KClason@idem.in.gov)

### **Background**

Until February 2016 IPL operated a coal-fired electric generating station on South Harding Street in Indianapolis. After February 2016, the power plant was converted to natural gas, however the coal ash and other waste materials from decades of burning coal remain. Under federal rules, IPL is required to develop a plan to close the ash ponds and protect public health and the environment.

For many years, coal ash and waste materials were mixed with water and dumped in eight surface impoundments (lagoons) built in the White River floodplain adjacent to the river. Seven of the eight lagoons are unlined and the eighth has a partial clay liner. The lagoons are located directly above and within a few feet of the shallow sand and gravel groundwater system (known as an aquifer) that adjoins the river. Areas of this aquifer "...lacking overlying clay deposits are highly susceptible to contamination."<sup>1</sup> This susceptibility to contamination puts nearby communities and groundwater at risk.

Combined, the ash lagoons at the IPL-Harding Street plant:

- Cover 87 acres
- Range in depth from 16 to 53 feet
- Contain 3.5 million cubic yards of coal ash and waste materials, which would fill over 1,000 Olympic-sized swimming pools

### ***Proposed coal ash lagoon closure plan***

In August 2016, IPL proposed to close the lagoons "in place" by pumping them dry and covering the ash with a plastic membrane and several layers of soil. The ash will remain in place with no bottom barrier between it and the underlying groundwater, which rises and falls depending on river levels. This leaves the ash vulnerable to re-saturation by the groundwater and continued leaching of contaminants, known as the "tea bag effect."

From sampling conducted by IPL, we already know the groundwater underneath the ash is contaminated with harmful chemicals and metals, including high levels of arsenic. IPL has installed monitoring wells around the coal ash lagoons and has reported two rounds of sampling so far, with at least six more rounds of sampling to go. These samples demonstrate that the groundwater beneath the lagoons is heavily contaminated. The levels of some contaminants far exceed drinking water standards. Fifty-four percent of samples found levels of arsenic exceeding the safe drinking water standard. The highest concentration of arsenic, a known carcinogen, was found at levels nearly 50 times the national drinking water standard. Boron levels were 13 times the EPA's health advisory level. A summary chart of the contamination reported in IPL's groundwater sampling is attached. If the contamination is left in place and not contained, nearby drinking water wells could be at risk.

### ***Waterways and Contamination***

Under a permit granted by the Indiana Department of Environmental Management, IPL discharges excess levels of coal ash wastewater in the lagoons to Lick Creek, which drains into the White River. However, the permit does not limit many toxic contaminants in the wastewater including arsenic, chromium and manganese – all commonly found in coal ash.<sup>2</sup> Also, at a gravel quarry south of the ash lagoons, daily water pumping is drawing contaminated groundwater from beneath the ash lagoons and dumping it into the White River without any monitoring or treatment required. What's more, because

---

<sup>1</sup> Indiana DNR, Unconsolidated Aquifer Systems of Marion County, Indiana map and text, May 2011

<sup>2</sup> IDEM, NPDES Permit No. 0004685, IPL-Harding Street, August 28, 2012

surface waters like the White River continuously interact with neighboring groundwater, contamination in the groundwater will reach the river through natural interaction- the exchange of water back and forth between surface water and groundwater. <sup>3</sup>

### ***Cost of the coal ash lagoons closure***

IPL estimates that its plan to leave the coal ash in place will cost \$19 million. Continued maintenance of the final cover system and groundwater monitoring, required by federal rules, will cost an additional \$2.7 million. In its plan, IPL does not estimate or consider the cost of future corrective actions if the groundwater contamination remains in place, which is highly likely. Corrective measures to pump and treat the groundwater, install an underground slurry wall, or other actions, may cost in the tens of millions of dollars.

IPL did not conduct a thorough benefit – cost analysis of all closure options, including “clean closure” which would excavate and remove the ash to a lined, dry landfill. Therefore, the public, IPL customers and IDEM have no basis for determining whether IPL’s closure plan is the most prudent and cost-effective approach to cleaning up its toxic coal ash. Removing the ash to a dry, lined landfill is the most environmentally-protective option. It prevents re-saturation and leaching of coal ash into the groundwater through the tea bag effect, while simultaneously preventing future contamination of the White River and nearby water sources.

### **Contact IDEM today and ask that:**

- IDEM reject the Harding Street closure plan because it does not include a full analysis of alternatives to ensure that IPL customers are getting the least-cost, most effective option in the long-term interest of public health and the environment
- IPL be required to conduct a full cost-benefit analysis of alternatives to ensure that the most prudent and cost-effective approach is selected for cleaning up its coal ash
- IPL maintain a website and regular public meetings to explain the results of groundwater monitoring and how drinking water and the White River are being protected.

*Source for coal ash lagoon information, groundwater sampling, and closure activities:*

Indianapolis Power & Light Company, Harding Street Generating Station, Ash Pond System Closure & Post-Closure Plan, July 28, 2016, accessed at <http://vfc.idem.in.gov/> , insert document number: 80330365.

---

<sup>3</sup> U.S. Geological Survey Circular 1139 --Ground Water And Surface Water A Single Resource, T.C. Winter, J.W. Harvey, O.L. Franke, and W.M. Alley, <http://water.usgs.gov/ogw/gwsw.html>

