

COAL ASH

Indiana ash ponds pollute bird habitat, drinking water

Situation prompts look at coal-waste storage standards

BY JAMES BRUGGERS • JBRUGGERS@COURIER-JOURNAL.COM • FEBRUARY 23, 2009

PRINCETON, Ind.— The ash ponds at the nation's third-largest coal plant near here have contaminated a new wildlife sanctuary for endangered birds and the drinking water of a neighboring community.

And while a federal agency and the company that owns the Gibson plant, Duke Energy, have taken steps to alleviate both problems, advocates say the situation underscores the need for a fresh look at the hazards of coal combustion waste.

Congress and the U.S. Environmental Protection Agency promised such a review following the 1.1-billion-gallon ash slide in Tennessee in December that smothered several hundred acres.

The House Natural Resources Committee is weighing national standards for ash impoundments, and the new EPA administrator, Lisa Jackson, has promised to study whether national standards are needed to prevent toxic contaminants in ash from polluting water.

Currently, ash ponds can be constructed almost anywhere, with their regulation left to states — resulting in a hodge-podge of rules often allowing ponds with no engineered liners to protect water.

"We need a national regulation that gets rid of that practice," said Jeff Stant, Indiana-based director of the Environmental Integrity Project's effort to address coal combustion waste. "What happened at Gibson shows why."

The issue is especially important in Kentucky and Indiana. Nationally, power plants produce more than 125 million tons of ash and other coal combustion wastes a year. Kentucky and Indiana ranked 1st and 3rd in production of such waste in a 2006 federal study.

Industry has for years fought federal rules for ash disposal, saying they aren't needed and would be too costly. But after the Tennessee incident, national rules are now likely, conceded Jim Roewer, executive director of the Utility Solid Waste Activities Group.

The Gibson plant in Indiana is among the newest documented cases of pollution from coal ash, although it was not among the more than 60 potential and proven ash "damage cases" that the EPA identified in a 2007 report.

Only one was in Kentucky, at Duke's East Bend Station in Boone County.

1 million tons of ash

The Gibson plant, about 120 miles west of Louisville in Gibson County, produces 3,000 megawatts of electricity — enough to power more than 2 million homes. It burns about 300 rail cars of coal a day, and produces about 1 million tons of ash per year.

The plant was owned by Cinergy until it was bought in 2006 by Duke, which inherited its problems.

In 2007, Duke determined that the chemical boron, found in coal, had moved into water wells of East Mount Carmel, a nearby community of about 10 homes, a church and a sporting goods shop.

Indiana has no drinking water standard for boron, but Gibson plant manager Tom Guthrie said some sampling exceeded federal guidelines, prompting the utility in September 2007 to provide new water to East Mount Carmel.

The EPA has advised boron can cause nausea and diarrhea, and that based on animal testing, it might affect the fetuses of pregnant women and male reproductive organs.

James Taylor, who runs the TNT sporting goods store and bait shop in East Mount Carmel and has lived there 29 years, said the water had begun to taste odd, so he welcomes the new supply.

But he also said he had enough of living so close to such a massive power plant. "I just want them to buy me out," he said.

Terns attracted

The other issue at Gibson arose when an endangered species of terns became attracted to a major industrial site in the soggy bottomlands along a migratory bird highway.

Long before anybody knew anything about the pollution from coal ash there, the terns adopted the plant's ash ponds and a dike in the cooling lake for nests.

The birds' presence put the company in conflict with the Endangered Species Act, said William McCoy, manager of the nearby Patoka River National Wildlife Refuge. Once nesting, they could not be bothered, he added.

So McCoy, with the U.S. Fish and Wildlife Service, Duke senior environmental scientist Tim Hayes and other partners, including Ducks

Unlimited, attempted to make better accommodations. They hatched a plan to build a new nesting area next to Duke, including a moat filled with water from the 3,000-acre Gibson cooling lake, a once-popular fishing hole fed in part by water from the ash ponds.

The nesting area opened in 2005, and McCoy said it worked. Terns went there, producing 57 fledglings that year, up from as few as five in 2001.

But in 2007, Duke discovered selenium in the cooling lake, up to seven times what the government considers safe for fish and wildlife. A naturally occurring substance in coal, selenium is essential for life in small quantities but toxic at high concentrations.

So, Duke was forced to close the lake to fishing, and early last year, the Fish and Wildlife Service drained the water from the nesting area, removed the fish, turned over sediment on the bottom, and turned over plants and topsoil on adjacent fields.

The company also laid a 2.5-mile-long pipe for new water from the Wabash River, raising its financial stake in the tern project to nearly \$1million.

Duke said it also is switching to a new "dry" storage method where its coal ash is put in a lined landfill to protect groundwater.

Now, the question is whether the terns, which are about nine inches long and have been on the endangered list since 1985, will return on schedule in May, and whether the clean-up worked.

"Hopefully we caught it in time," Hayes said of the elevated selenium.

U.S. Forest Service researcher Dennis Lemly, who documented selenium problems in another Duke cooling lake in North Carolina in the 1980s, has his doubts — saying the lake at Gibson remains "a significant toxic hazard."

For his part, McCoy said he had just assumed that "if they are allowing people to fish in the lake, what do we have to worry about?"

He now calls that "naïve."

Reporter James Bruggers can be reached at (502) 582-4645.



Photos by Chris Hall, The Courier-Journal
Wildlife flew over and landed on one of the ponds at Duke Energy's Gibson Generating Station in Gibson County, Ind. Pollution from the plant has contaminated a bird sanctuary and drinking water for a nearby community.

[Indiana ash pond](#)



James R. Taylor, owner of TNT Sporting Goods in East Mount Carmel, Ind., said he had enough of living so close to the Gibson Generating Station. "I just want them to buy me out," he said.



Tom Guthrie, plant manager of the Gibson Generating Station, said Duke Energy was providing water to East Mount Carmel, Ind., after contamination from the plant's ash ponds was detected in area water wells.



Bill McCoy, of the U.S. Fish and Wildlife Service, held decoys used to attract terns to a wildlife refuge near the Gibson Generating Station.