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**SMOKY SKIES:** The coal-burning Gavin Power Plant in Cheshire, Ohio, is one of the US's top producers of mercury, according to the EPA. In the US, power plants account for 60 percent of all mercury released into the air by industry.  
DANIELLA P. RICHARDS/THE RECORD/KRT

## MERCURY RISING

Heavy reliance on coal is boosting mercury levels. How should the US limit emissions from the power industry?

By [Mark Clayton](#) | *Staff writer of The Christian Science Monitor*

John Ament likes to go fishing, but these days he doesn't eat the bass he catches at Caddo Lake, his much-loved family retreat. Too much mercury in them, he says. Texas authorities agree.

That's why they have issued a mercury warning for fish caught in Caddo, the Lone Star State's largest natural lake and one of its most beautiful with ancient-looking cypress trees dripping Spanish moss.

Mr. Ament's lament is being felt nationwide. In 2002 at least 43 states issued mercury warnings for fish covering 12 million acres of lakes and 400,000 miles of rivers. In January, the United States Environmental Protection Agency (EPA) warned that 1 in 6 women of childbearing age had mercury levels in her blood that could put a fetus's development at risk.

The reason for the rise in mercury contamination, many suspect, is the nation's heavy reliance on coal. Emissions from electric utility plants represent the single largest unregulated industrial source of mercury emissions in the US, according to the EPA. Some 500 power plants pump out 60 percent (45 tons) of the 75 tons of mercury released into the air by all industries that year, according to the EPA's 2001 Toxic

Release Inventory. But environmentalists charge that plans to clamp down on the problem have been undermined by the White House, which says that it favors a more flexible market-oriented approach.

When mercury is expelled from smokestacks, and falls to earth as particles or in rain, it sinks into lake and river sediment. Then bacteria and plants absorb methyl mercury into the food chain - with predator fish, loons, osprey, and humans consuming the highest and potentially most harmful concentrations. Even though mercury has been a regulated air toxin for 35 years, it is not currently controlled in power plants.

Last fall a federal advisory committee on power-plant mercury was on the verge of recommending cuts of up to 90 percent in utility mercury emissions and a cap of five tons for the industry by 2008. But the Bush administration sidestepped the task force, proposing an alternative "cap and trade" approach that would reduce mercury emissions 70 percent by 2018.

A similar cap-and-trade approach has earned kudos for cutting other power-plant pollutants, sulfur dioxide and nitrogen oxides. But critics argue mercury is different - a toxin whose presence must be cut quickly. Environmentalists say that six to seven times more mercury would enter the environment under Bush's plan compared to the more stringent plan.

"The problem is that you want mercury as a toxic pollutant to be reduced, not just traded to someplace far away," says Tom Nathan, a mercury expert with the National Environmental Trust who was a member of the EPA advisory committee on mercury. "If they don't clean up, you end up with hot spots like Florida's Everglades. Allowing a Florida utility to trade with a Massachusetts plant doesn't do Florida much good."

The EPA's new approach is generating considerable political heat. A number of state attorneys general, mainly from the East Coast, along with environmental groups are expected to submit rebuttals to the EPA mercury plan by Friday - the deadline for public comment.

## LONG-TERM IMPACT

"Mercury is an important issue, one that needs addressing," says Barry Bennick, co-owner of the Pine Needle Lodge on the shores of Caddo Lake. "My concern is not about how mercury affects us today or [in the] next couple of years, but how it will affect this lake 50 years from now."

Caddo's game fish have become dangerously laden with mercury since a bevy of power plants sprang up in counties nearby after World War II, Mr. Ament says. Most plants burn soft brown lignite found just below the surface - a type of coal with the highest mercury content in the US, according to the US Geological Survey.

Ament and some scientists see a connection between mercury in Caddo fish and the mercury in electric utility plumes blowing over Caddo. That's why he and seven other residents sued four nearby power plants last summer to get them to scrub mercury from their emissions.

About 30 miles from Caddo, in Titus County, is the Monticello Steam Electric Station, the third largest mercury-emitting power plant in the US and No. 1 in Texas in 2001. Monticello, along with three other plants also named in the suit, pumped nearly 2 tons of mercury into the air in 2001, according to the EPA.

But the largest of Monticello's three units has a scrubber to reduce sulfur dioxide that also cuts some of the mercury output, according to TXU Corp., a multinational company in Dallas that owns the plant. "TXU has an excellent record protecting the environment and ... doing more than is required by state and federal regulations," says Drew Douglas, a TXU spokesman. "While no mercury regulations exist today for power plants, TXU continues to cooperate with EPA as it develops regulations."

And with respect to Caddo Lake mercury, he says there's no evidence "to link emissions from any TXU power plants to any mercury contamination." He adds that "there is no evidence that the plaintiffs have suffered any harm from any power-plant emissions."

Neither his assurances nor the EPA cap-and-trade proposal comforts Karen Hadden,

executive director of Texas Public Interest Research. She says Texas already leads the nation in utility mercury output, emitting 8,992 pounds of mercury into the air in 2001. "We're the worst," she says. "But under the cap-and-trade proposal, we would not get the cleanup we need. The utilities here would buy their way out of putting in controls rather than installing them. That's why we urge a 90 percent reduction at all plants and in a timely manner by 2008."

EPA officials deny they are getting set to impose a soft rule. Voluminous input has been taken from the public as well as industry, says William Wehrum, counsel to the assistant administrator of the EPA office of air and radiation, which develops air regulations.

"We're excited about the prospect of cap-and-trade with mercury," Mr. Wehrum says. "By doing it at the same time we are limiting other pollutants ... we believe it will lead to significant improvements in public health and sweeping and significant reductions in pollution from power plants across the board."

Wildlife advocates across the country are watching with interest. In Maine, there is concern that the haunting call of the loon echoing across the state's lakes could be lost if something isn't done soon. Power-plant emissions from the Ohio Valley are carried by winds across New England. Mercury in rain and snow has intensified concentrations in the region's lakes - where loons breed.

## 'LETHARGIC' LOONS

About 30 percent of the loon population in Maine has extra high levels of mercury, says Wing Goodale of the BioDiversity Research Institute in Falmouth, Maine. As a top predator, loons accumulate mercury by eating larger fish heavy with mercury.

"We are seeing decreased productivity, the ability to raise young - a 40 percent drop in their ability to raise young," Dr. Goodale says. "The birds become lethargic."

Loons live up to 30 years, begin breeding when they are seven years old, and hatch only two eggs every few years. The result could be a sudden die-off. "We've seen quick reductions in blood mercury when emissions have been reduced," Goodale says. "The levels start to decrease right away. So it's important to reduce emissions now, today, because we can get a response in the environment fairly quickly."

Of the top 10 mercury-emitting plants in the nation in 2001, three belong to American Electric Power, the nation's largest utility, based in Columbus, Ohio. But a company spokesman says progress on mercury emissions is already being made by installing pollution-reduction equipment aimed at nitrogen oxides and sulfur dioxide.

A case in point is the power plant with the 10th highest mercury emissions in the nation in 2001 - the huge, AEP 2,600-megawatt Gavin Plant in Cheshire, Ohio, which reported 950 pounds of mercury output. That same year, however, a new control system for NOX was installed. The next year, mercury dropped to 656 pounds. Last year, mercury fell to 527 pounds although more electricity was produced.

Still, the company was forced to buy the town for \$20 million from residents who complained bitterly about ground-level smog after the new equipment was installed.

Back at Caddo Lake, however, there's no such panic over the mercury threat - just a determination to make a change. Property values have actually risen at the far western end of the lake, so the damage from mercury is hard to see, Ament admits.

"I'm not so much personally concerned about this because I never intend to sell this place," Ament says of his cottage. "But if word gets out that there's mercury contamination here, people will just back away. They won't want anything to do with this lake."

## TOP MERCURY PRODUCERS

These power plants emitted the most mercury into the air in 2001, according to the Environmental Protection Agency.

	<b>Plant</b>	<b>Location</b>	<b>Total air emissions (in pounds)</b>
1.	<b>Reliant Energies Inc. Keystone Power Plant</b>	Shelocta, Pa.	1,806
2.	<b>Mt. Storm Power Station (Dominion Resources, Inc.)</b>	Mount Storm, W.V.	1,400
3.	<b>TXU Monticello Steam Electric Station &amp; Lignite Mine</b>	Mount Pleasant, Texas	1,303
4.	<b>American Electric Power Rockport Plant</b>	Rockport, Ind.	1,300
5.	<b>Jeffrey Energy Center</b>	Saint Marys, Kan.	1,149
6.	<b>Limestone Electric Generating Station</b>	Jewett, Texas	1,100
7.	<b>American Electric Power H.W. Pirkey Power Plant</b>	Hallsville, Texas	1,100
8.	<b>Martin Lake Steam Electric Station &amp; Lignite Mine</b>	Tatum, Texas	1,070
9.	<b>Alabama Power Co. Miller Steam Plant</b>	Quinton, Ala.	956
10.	<b>American Electric Power Gavin Plant</b>	Cheshire, Ohio	950

SOURCE: EPA

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