

principles that provide a context for additional inquiry and focus as we enter the decision phase of the rulemaking. This page describes these principles and areas of additional inquiry.

Applying Technology

Approximately 75 tons of mercury are found in the coal delivered to power plants each year and about two thirds of this mercury is emitted to the air, resulting in about 50 tons being emitted annually. This 25-ton reduction is achieved in the power plant boilers and through existing pollution controls such as fabric filters (for particulate matter), scrubbers (for SO₂) and SCRs (for NOx). As more scrubbers and SCRs are installed to comply with the Clean Air Interstate Rule and other regulations, mercury emissions are expected to decrease. This multipollutant approach is central to the Agency's plan to reduce mercury from power plants.

In addition to relying on existing technologies, several mercury-specific control technologies are in various stages of development, testing, and demonstration. Currently none of these technologies are in commercial operation on power plants in the U.S. but EPA expects these technologies to play a role as EPA and states require reductions in mercury emissions.

EXHIBIT 23
DATE 2.4.05
HB 455

http://www.epa.gov/mercury/control_emissions/index.htm

1/20/2005

Helena
INDEPENDENT RECORD

Sunday, October 26, 2003 • Page 7A

Scientists startled by mercury levels in Yellowstone

YELLOWSTONE NATIONAL PARK, Wyo. (AP) — Scientists measuring mercury levels made a startling discovery at the base of Roaring Mountain: possibly the highest levels of mercury ever recorded at an undisturbed natural area.

"I looked at it and did a double take. I thought my instrument was busted,"

Mike Abbott, a scientist with Idaho National Engineering and Environmental Laboratory, said Tuesday. He said several areas

between Mammoth and the Norris Geyser Basin showed "fairly high" mercury levels. The discovery is helping scientists determine whether Yellowstone is a major source of atmospheric mercury.

The issue could factor into the larger issue of regulating mercury emissions from industrial sources such as coal-fired power plants.

While human-caused mercury emissions are well-understood, little is known about natural emissions. But

that could change after the scientists' research at Yellowstone this fall.

"In my mind, it's a potentially big source," Abbott said.

Preliminary estimates from measurements taken in Yellowstone in early September suggested relatively low levels of mercury. But

data collected later in the month, and made public Tuesday, showed otherwise.

Abbott said it is conceivable — though still highly speculative — that Yellow-

stone could emit as much mercury as all the coal-fired power plants in Wyoming.

"That's not a real estimate but something based on just a few measurements," he said. "It could even be bigger than that, we just don't know."

Several places in Yellowstone have had mercury levels higher than normal amounts. In particular, the

corridor between Mammoth and Norris that has piqued the curiosity of researchers. Places like the Norris

Basin, Frying Pan Spring and Roaring Mountain suggest a connection between mercury levels and acid sulfate.

At Roaring Mountain, Abbott measured mercury emanating from the clay hillside at up to 2,400 nanograms per square meter

per hour. Other sites in the Norris-Mammoth corridor emitted 200-700 nanograms.

In comparison, background levels away from geothermal areas range from zero to 10.