

Push to replace new US mercury plan

Mercury's tendency to pollute locally has caused the Bush administration's emissions-trading scheme to be called into question.

*By [Peter N. Spotts](#) | Staff writer of The Christian Science Monitor
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The nation's new program to regulate mercury may be short-lived. Several draft bills in Congress – as well as a suit in federal court – are challenging the Bush administration's mercury pollution program, which took effect last year. A key reason, they charge, is that the plan's emissions-trading scheme – which has worked to curb other pollutants that spread far and wide – doesn't work for mercury, which accumulates locally as well as spreading over long distances.

That's why lawmakers on Capitol Hill are preparing bills that would tackle the toxic pollutant in a more direct manner. They aim to reduce mercury emissions from coal-fired power plants by 90 percent, rather than the Environmental Protection Agency's (EPA's) target of 70 percent. The bills also would set up a nationwide monitoring network to track airborne mercury and its effects on the environment.

Democrats and Republicans have offered similar bills before. But three major scientific studies published during the past several months have added urgency to their efforts, they say. The upshot of the research: Unlike pollutants such as sulfur dioxide, airborne mercury is far more likely to drop back to earth close to its source, generating "hot spots" of contamination and accumulating in the food chain.

The research also is cited in a lawsuit 16 states and a handful of environmental groups have filed with the US Court of Appeals in Washington. The suit, initiated two years ago, challenges the EPA's regulatory tack on mercury pollution. Within the past two weeks, the plaintiffs filed opening briefs charging that the EPA is misusing the emissions-trading approach. They also argue that to set up the program, the agency illegally dropped power plants from a list of pollution sources that must face the most stringent controls under the Clean Air Act. Emissions trading has helped the country dramatically reduce sulfur-dioxide pollution from power plants by establishing a market-based approach. Companies can balance out their big polluting plants either by running much cleaner plants elsewhere or buying pollution credits from other, cleaner utilities.

As emission limits tighten, the cost of such credits goes up, encouraging companies to close or retrofit their biggest polluters.

But the recent studies provide new data that show why such a scheme should not be allowed for mercury, argues Rep. Tom Allen (D) of Maine, author of a bill to establish a national mercury monitoring network.

The first study, published last September in *Environmental Science and Technology*, found that over a two-year period, 70 percent of the mercury that rain or snow washed out of the skies over Steubenville, Ohio, came from local or regional sources. This is far higher than previous EPA studies indicated. The team picked Steubenville because 17 coal-fired power-plant boilers operate within 62 miles of the city, and another study had documented adverse health effects to people in the area from air pollution.

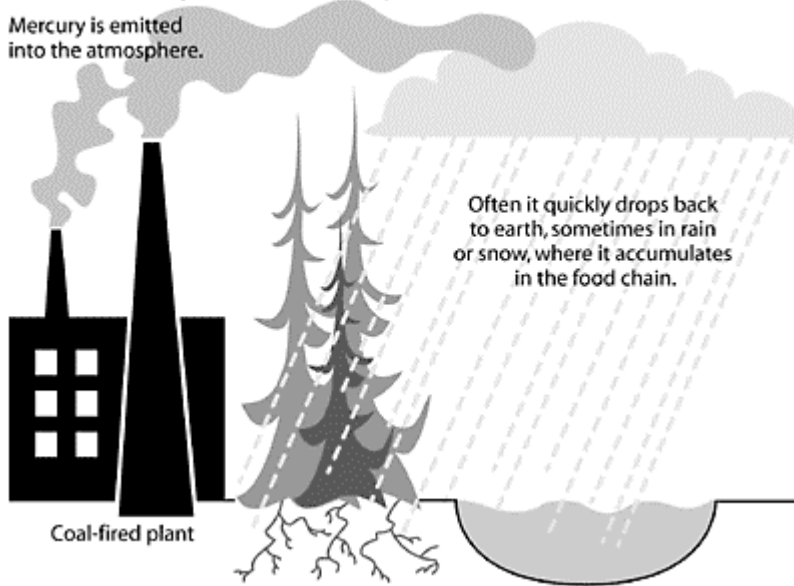
Two studies published this month in the journal *BioScience* discovered five biological hot spots in the northeastern US and southeastern Canada, and uncovered another nine that may be hot spots as well. The intensity of these hot spots varies with the type of coal burned in a boiler at the source and with other factors such as the landscape's chemistry or water levels in reservoirs. As with Steubenville, the researchers also established that at least two hot spots that cover southeastern New Hampshire and northeastern Massachusetts could be traced to local and regional sources and that the mercury was showing up in fish and birds.

One of the two studies carried some good news, notes Charles Driscoll, a Syracuse University scientist who took part in both studies. Between 1997 and 2002, mercury emissions fell by 45 percent in southern New Hampshire, thanks to emissions controls on incinerators. Concentrations found in wild loons in one of the hot spots fell by an average of 30 percent over that period. Mercury levels in yellow perch and in plankton also fell.

The results have led both groups to call for a more effective national system for monitoring the sources and effects of airborne mercury. The sulfur-dioxide program worked, Dr. Driscoll says, because the EPA had comprehensive monitoring network. "Those measurements are not in place for mercury."

How mercury creates 'hot spots'

Mercury is emitted
into the atmosphere.



Based on data from Hubbard Brook Research Foundation/RICH CLABAUGH -
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