The Oregonian (Portland, Oregon)

October 18, 2007 Thursday
Sunrise Edition

While industries clean up, wildfires spew mercury

BYLINE: MICHAEL MILSTEIN, The Oregonian

SECTION: Local News; Pg. D01

LENGTH: 569 words

SUMMARY: Pollution | Oregon blazes release far more of the element than factories, a study says

Most of the toxic mercury spewed into the air in Oregon does not come from smokestacks that face tightening pollution rules, but from smoky wildfires that are getting more frequent and more intense with global warming.

Oregon wildfires poured more mercury into the air from 2002 through 2006 than any other state except Alaska and California, according to findings released Wednesday in the journal Environmental Science and Technology by scientists at the National Center of Atmospheric Research in Colorado.

That period included the 500,000-acre Biscuit fire in 2002, the largest wildfire in modern Oregon history.

Global warming is expected to make frequent, large fires more common in the West, adding air pollution to other concerns that already surround climate change.

The scientists calculated that Oregon wildfires released an average of about 2.8 tons of mercury into the air annually, more than twice the amount emitted by industrial sources such as power plants and factories, according to an inventory by the U.S. Environmental Protection Agency.

Bruce Hope, an environmental toxicologist at the Oregon Department of Environmental Quality, said he noticed a few years ago that he could tell when wildfires were burning by looking at data from mercury monitors. The fires send mercury levels three or four times higher.

"When those fires roll through, it just spikes," he said. Hope was not involved in the new research.

Oregon environmental officials bowed to public pressure last year and ordered Portland General Electric to spend millions to cut mercury emissions from its Boardman power plant by 90 percent.

Although industrial mercury emissions are declining in the United States, they are increasing in the developing world.

Industrial mercury is an issue in wildfires, too, because mercury released amid the smoke of wildfires came originally from industrial sources and some natural sources such as volcanoes, said Hans Friedli, a scientist with the atmospheric research center and co-author of the new study. The mercury settled in forests and remained until fires burned through and sent it into the sky again.

People face little risk from breathing the mercury, although smoke contains other harmful compounds. Mercury poses a threat mainly because it can fall into rivers and lakes and collect in fish that people eat.

"Basically you don't care so much if it's in the forest --it does no harm there," Friedli said. "But the fire might come along and put it in a place you don't want to have it."

He said mercury from fires, like some power plant emissions, probably drifts long distances.

Separate research suggests that other pollutants, such as cancer-causing PCBs, might also collect in wildlands only to be turned loose when fires burn through, Hope said.

The Colorado scientists used satellite monitoring to measure the extent of fires nationwide during the years they studied and then calculated the amounts of mercury released. In 2002, the year of the Biscuit fire, mercury emissions were