



EPA Finalizes Plan to Monitor Mercury from Coal-Fired Power Plants

What is the Information that EPA will Collect?

The U.S. recently announced that for the first time coal-fired power plants nationwide will have to monitor and report their mercury emissions. Coal-fired plants are the largest and, as of yet, unregulated source of mercury emissions in the U.S., accounting for one-third of all man-made mercury releases to the air.

The EPA is using its authority under Section 114 of the Clean Air Act to require pollution sources to collect and report detailed information about their emissions. EPA feels additional data are needed before taking steps to regulate this particular source.

Who is affected?

Every coal-fired unit over 25 megawatts will be affected by this effort. A preliminary state-by-state list of targeted sources can be found on the Internet: <http://www.epa.gov/ttn/oarpg/t3pfpr.html>

What type of mercury monitoring is required?

Power plants will be required to monitor mercury emissions for one year. There are two parts to this collection effort: analyzing the mercury content of coal being burned, and measuring emissions with and without the use of stack controls.

Analyzing mercury content in coal

Starting January 1, 1999 all coal-fired units over 25 MW will be required to analyze every 6th coal shipment for mercury and chlorine content (min. 3 per month). There are two exceptions: 1. For mine-mouth operations, analyses of the coal supply should be made every 10 days; 2. For those receiving less than 18 shipments/month, analyses should be made on 3 shipments, evenly spaced over the month.

At the end of every 3-month period, the Agency will review the data and, depending on the variability, will either require more or less frequent sampling. If 90% of the results collected over a 3-month period fall within $\pm 10\%$ of the mean then analyses should continue to be done for every 6th shipment (min. 3 per month). If they fall outside the target, plants will have to analyze every 3rd shipment (min. 3 per month).

For subsequent quarters, sampling frequency will vary depending on the results of the analyses (no plant will ever sample less frequently than every 12th shipment, or generate fewer than 3 reports per month):

IF	THEN
2 consecutive quarterly evaluations meet target	every 12 th shipment
any quarterly evaluation fails to meet target	every shipment (if currently every 3 rd) every 3 rd shipment (if currently every 6 th) every 6 th shipment (if currently every 12 th)
analyses for every shipment or every 3 rd shipment and a quarterly evaluation meets target	every 3 rd shipment (if currently every shipment) every 6 th shipment (if currently every 3 rd)

This is one in a series of fact sheets on the impacts of dirty power plants on air quality. For more information, contact the Clean Air Network, an alliance of over 900 citizen environmental, public health, religious, and other community groups working to protect the air we breathe, 202/289-2429.

Monitoring for mercury stack emissions

In addition to the coal samples, EPA will randomly select somewhere between 75 and 135 units which will be required to do a pre- and post-control stack test for mercury. EPA has categorized all 1,400 coal-fired units into 45 separate categories, based on coal type, SO₂ scrubber type, and electrostatic precipitator type (designed to capture particulates). These three variables appear to affect the form of mercury that is emitted into the air.

At least 3 units from each category will be required to do stack tests for mercury. The U.S. Department of Energy claims to have available stack emissions data for up to 27 units. If the data are complete and similar to what would be collected under this effort, EPA will use them and supplement the data with stack tests from the random sample.

How will the data be used?

Once EPA knows the mercury content of the coal being burned, the amount of coal being burned, and the type of stack controls being used, EPA will be able to calculate a specific emission factor for each of the 45 categories. An emission factor is written in terms of pounds of pollutant emitted per ton of coal burned.

When more accurate emission factors are developed, we can better estimate the total amount of mercury being released by coal-fired power plants. As citizens, this information will improve our understanding of the impact these mercury emissions have on our local communities and ecosystems.

The data collected on the form of mercury being released will be helpful for refining EPA's mercury transport models as well as for designing effective control strategies.

When will data be available?

Any information that EPA collects under Section 114 of the Clean Air Act has to be made available to the public.

The first set of raw data will be submitted to EPA in April 1999, with final reports submitted in early 2000. In 2000, EPA will make 1999 annual mercury emissions estimates for each coal-fired power plant based on this collection effort. Raw data will likely be available to the public prior to 2000.

How will data be used for future regulatory actions?

For nearly a decade the utility industry has argued that EPA cannot justify taking regulatory action to address mercury emissions from coal-fired power plants given the lack of data. This collection effort will change that, and will give us the most comprehensive picture of the type and amount of mercury being released by utilities. It will answer many of the remaining questions about the effectiveness of stack controls, the mercury variability in different coals, and the form of mercury vapor being released.

EPA intends to use the collected information to help decide what form of regulatory action it should take to address mercury emissions from coal-fired power plants. EPA plans to make a regulatory determination late in the year 2000.

How can we guarantee mercury monitoring past the one-year?

EPA is proposing to lower the reporting threshold for mercury under the TRI program. If successful, nearly all coal-fired power plants will have to report their mercury emissions to TRI using the "best available information." While power plants are not required to use a specific monitoring protocol, they will have to apply the emission factor developed under this effort when reporting to the TRI. If EPA fails to finalize the reporting requirements to the TRI, EPA plans to extend this information collection effort.

Regardless of how this gets resolved, advocates should push for state-level mercury emissions monitoring and reporting. Since the monitoring program is already designed and power plants will be familiar with the protocol, it would be easy to adopt these monitoring and reporting requirements on the local level.

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