

EPA Proposes First National Standard for Mercury Pollution from Power Plants

In response to a court deadline, on March 16, 2011, the U.S. Environmental Protection Agency (EPA) proposed the first-ever national standards for mercury, arsenic and other toxic air pollution from power plants. The rule includes proposed standards for mercury, arsenic, chromium, nickel and acid gases, and replaces the previous Administration's Clean Air Mercury Rule (CAMR), which was struck down in a February 2008 court ruling.

Power plants are the largest remaining source of several toxic air pollutants – responsible for half of mercury and more than half of acid gas emissions in the United States. In the power sector alone, coal-fired power plants are responsible for 99 percent of mercury emissions. Currently, more than half of all coal-fired power plants already deploy the widely available pollution control technologies that allow them to meet these important standards. Once final, these standards will ensure the remaining coal-fired plants, roughly 44 percent, take similar steps to decrease dangerous pollutants. The proposed rule provides up to 4 years for facilities to meet the standards and, once fully implemented, will prevent 91 percent of mercury in coal from being released into the air.

KEY FEATURES OF THE PROPOSED RULE:

- The proposed rule sets standards – based on the best-performing controls currently in operation – for all HAPs emitted by coal and oil-fired EGUs with a capacity of 25 megawatts or greater. All regulated EGUs are considered major. EPA did not identify any size, design or engineering distinction between major and area sources in this category.
- EPA is proposing to subcategorize:
 - A certain class of coal-fired boilers located at mine mouths that are generally designed to burn lignite coal. The mercury limit in this subcategory is based on “beyond the floor” emission reduction opportunities because EPA analysis shows that better controls are widely available and affordable.
 - Solid and liquid oil units because even though petroleum coke is derived from oil, it is a solid fuel and cannot be burned in a liquid oil-fired boiler.
- EPA is not proposing less-stringent alternative standards (called “health-based emissions limits” or HBEL), which the Administrator has the discretion to consider if she determines that an HBEL will mandate reductions sufficient to protect individuals most exposed to toxic pollutants. The many HAPs EGUs emit in high amounts negate the basis for adopting this less stringent approach.
- EPA is not proposing a separate subcategory for coal refuse units (aka “waste coal”) because our analysis did not indicate that such subcategorization was necessary or warranted.
- EPA is providing flexibility by allowing facility-wide averaging for all HAPs emissions from existing units within the same subcategory. This will allow equivalent, less costly way of achieving emissions standards.
- The proposed rule takes advantage of state-of-the-art high quality monitoring:

- CEMs for numeric standards (mercury, HCl or SO₂, and PM);
- Emissions testing, parameter monitoring, and fuel analyses allowed for metals and acid gases; sorbant traps allowed for mercury;
- Thirty day averaging period to accommodate process variability and, coupled with CEMS, facilitates compliance.
- The proposed standards will establish achievable numerical emission limits for mercury, PM (as the surrogate for non-mercury metals, with options for measuring the metals) and hydrogen chloride (as the surrogate for acid gases with an option for measuring SO₂, or the individual acid gases).
- Records of work practice standards are proposed for organic HAP emissions to ensure proper combustion which prevents formation of organic HAPs, and in recognition of current low levels of emissions near detection limits.

For more information: <http://www.epa.gov/airquality/powerplanttoxics/>