

Understanding the EGU MACT New Rules

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On May 3, 2011, the Environmental Protection Agency (EPA) published in the [Federal Register](#) a proposed rule to reduce emissions of certain Hazardous Air Pollutants (HAPs) such as heavy metals, including mercury (Hg), arsenic, chromium, and nickel (Ni), and acid gases, including hydrogen chloride (HCl) and hydrogen fluoride (HF), from new and existing coal-and oil-fired electric utility steam generating units (EGUs). EPA proposes codifying the rule at 40 C.F.R. part 63, subpart UUUUU. EPA is currently taking comment upon the rule until July 5, 2011, and must finalize the rule by November 16, 2011.

The rule affects currently existing and new EGUs. An EGU is defined as fossil fuel-fired combustion unit of more than 25 megawatts electric that serves a generator producing electricity for sale and distribution through the national electric grid to the public. The rule covers EGUs at both major and area sources and includes investor-owned units as well as units owned by the federal government, municipalities, and cooperatives that provide electricity for commercial, industrial, and residential uses.

The rule proposes separating affected units into five subcategories to which unique numeric emission limitations will apply. All numeric emissions standards proposed in the rule reflect the application of maximum achievable control technology (MACT) consistent with the requirements of the Clean Air Act. These MACT standards were developed by EPA through the solicitation of information from and by requiring testing of various groups of coal-and oil-fired EGUs.

For coal-fired EGUs, the rule ultimately puts forward emission standards for Total Particulate Matter (PM) as a surrogate for non-Hg metals, and HCl emission standards as a surrogate for all the acid gas HAP. In addition to establishing these surrogate standards, EPA's rule identifies three alternative emission standards for coal-fired EGUs. These alternative emission standards include sulfur dioxide (SO₂) standards for HCl, but only for coal-fired EGUs with add-on flue gas desulfurization (FGD) systems; individual non-Hg metal HAP for PM; and total non-Hg metal HAP as another alternate to PM. For all organic HAP, EPA proposes a work practice standard that would apply to all subcategories of EGUs. The work practice standard requires the implementation of annual performance/compliance "tune-ups."

To demonstrate compliance with the rule's emission limits, EPA proposes that the owner or operator of new or existing coal-fired EGUs conduct performance tests, which effectively require: (1) initial and periodic testing; (2) the

establishment of operating limits, which, once established during an initial or periodic test, become the parameters within which an EGU must operate at all times (until the next periodic test) to demonstrate ongoing compliance; and (3) the monitoring of emissions through various continuance compliance methods.

For certain HAP, the rule requires that a monitoring system be installed to demonstrate continuous compliance with emissions limits. More particularly, the rule requires that coal-fired EGUs electing to monitor PM emissions (as a surrogate to non-Hg HAP metals) demonstrate continuous compliance with PM limits through use of a PM CEMS. Similarly, for Hg emissions, continuous compliance may only be demonstrated through use of an Hg CEMS or a sorbent trap monitoring system.

The proposed rule will become effective on the date the final rule is published in the Federal Register. Existing EGUs must comply with the rule no later than three years after the date the final rule is published in the Federal Register. An additional year for compliance may be provided at the discretion of a permitting authority on a case-by-case basis. Existing EGUs must demonstrate initial compliance with the rule, including emissions limits, no later than 180 days after the three (or four) year compliance date. New EGUs must comply with the rule by the date the final rule is published in the Federal Register, or upon the startup of the EGU, whichever is later. New EGUs must also demonstrate initial compliance no later than 180 days after the final rule is published in the Federal Register, or 180 days after the startup of the source, whichever is later.

Background information on the proposed rule can be found at [EPA's Air Toxic Standards for Utilities website](#).

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