

MACT UPDATE

**Industrial / Commercial / Institutional Boilers and Process Heaters
(Boiler MACT)**

**Commercial / Industrial Solid Waste Incineration Units
(CISWI Rule)**

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Industrial/Commercial/Institutional (ICI) Boiler MACT

- 2004: EPA promulgated NESHAP for ICI Boilers under Section 112 (d) of the Clean Air Act.
- The “Boiler MACT” (40 CFR 63, Subpart DDDDD):
 - Applied to: Boilers, hot water heaters, process heaters, *if located at a major source of HAPs*
 - Exempted: Existing small boilers (≤ 10 MMBtu/hr) – solid fuel, liquid, & gas-fired
 - Exempted: New or reconstructed small gas-fired Boilers (≤ 10 MMBtu/hr)
- 2007: U.S. Court of Appeals vacated and remanded the 2004 rule

Boiler MACT– Basic Requirements of the Vacated Rule

Existing Boilers *[Large = > 10MMBtu/hr Small = ≤ 10 MMBtu/hr]*

- Large Solid Fuel Units: Emission Limits (PM, HCl, Hg) & No CEMs
- Small Solid Fuel Units: Emission Limits (PM) & No CEMs
- All Liquid Fuel Units: No Emission Limits or CEMs
- All Gas Fuel Units: No Emission Limits or CEMs

New Boilers *[Large = > 10MMBtu/hr Small = ≤ 10 MMBtu/hr]*

- Large Solid Fuel Units: Emission Limits (PM/metals, HCl, Hg) & **CO CEMs**
- Small Solid Fuel Units: Emission Limits (PM/metals, HCl, Hg) & No CEMs
- Liquid Fuel Units (Large Units Only): Emission Limits (PM, HCl) & **CO CEMs**
- Gas Fuel Units (Large Units Only): No Emission Limits, but **CO CEMs**

Boiler MACT– What Did Critics and the Court Object to?

1. The 2004 Boiler MACT did not include emission limits for boilers fueled with **natural gas**.
2. Did not address emission limits for all HAPs.
3. It allowed flexibility – alternatives to standard emission limits and compliance tests:
 - **Risk Assessment** – Perform risk assessment to set a facility-specific emission limit for HCl
4. Disagreement over **Fuel Classification**.
 - Are materials like C&D wood, manures, and paper mill sludge a **fuel** or a **solid waste**?
 - When combusted in a boiler, is this **fuel combustion**, regulated under the Boiler MACT (Section 112 of the CAA), or is this **solid waste combustion**, regulated under the CISWI MACT (Section 129 of the CAA)?

Boiler MACT– Where Is It Headed?

EPA's Promulgation Schedule (Revised Fall 2009):

- **April 2010:** Issue proposed rule for public comment
- **December 2010:** Promulgate final rule

Boiler MACT– Issues EPA Is Working to Resolve

1. Fuel Classification – EPA Proposed Rule for Fuel vs. Waste Classification (Federal Register – January 2, 2009)

- “*Solid waste*” = A discarded material having no intrinsic value
- A “*fuel*” or “*ingredient*” = Material that is not discarded; has use as valuable commodity; not contaminated
- 8 proposed *fuel categories*: biomass, C&D, tires, scrap plastics, solvents, coal refuse, wastewater sludge, and used oil
- 6 proposed *ingredient categories*: e.g., coal ash


2. **MACT Floor** How to set the MACT Standard when the data base needed to establish the “MACT Floor” (top-12% emission level) is too limited (e.g., poultry litter fuel)?

3. **Data Request** To address Items 1 and 2, EPA sent Information Collection Requests (Section 114) to most Boiler MACT and CISWI Rule sources, requiring emissions and fuel testing data to be furnished by October 2009.

Boiler MACT– Further Issues EPA Is Working to Resolve

4. What Boiler Subcategories for Setting Emission Limits?
 - By boiler type?
 - By fuel type?
 - By industry?
5. Will Surrogates Be Used for Emission Limits?
 - CO for Persistent Organic HAPs (e.g., dioxin)
 - PM for heavy metals
 - HCl for acid gases (HF)
3. What HAPs to Regulate for Gas-Fired Units? (No limits before)

Hammer Time?

- Major sources of HAPs without a promulgated MACT must apply for a **case-specific MACT** under CAA 112(j) and (g).
- This is called the “MACT Hammer” 
- EPA has notified state air regulators nationally that “Boiler MACT sources” are legally required to submit case-specific MACT applications (Parts 1 and 2).
- Many states are taking a “wait and see” approach. Waiting for the new Boiler MACT in December 2010. Not actively soliciting case-specific MACT applications, but must review one if submitted.
- By contrast, some states are requiring case-specific MACT applications: e.g., NJ, PA, VA, OR

What to do? Should I Apply for Case-Specific MACT?

- Legally, US EPA's official answer is "yes."
- But, consult with your state air regulator to determine if they are soliciting applications or are currently a "wait and see state".
- If a "wait and see" state, evaluate risks vs. benefits in your particular case of applying for case-specific MACT.

What to do? Should I Apply for Case-Specific MACT?

- **Risks** of applying for case-specific MACT:
 - Costs for MACT application and for added compliance burden (monitoring, reporting).
 - Final Boiler MACT (Dec. 2010) may be more lenient than case-specific.
 - Possible difficulty meeting emission limits if you adopt one of the model, case-specific MACT rules (e.g., NACAA).
- **Benefits** of applying for case-specific MACT:
 - You comply with US EPA's legal determination that case-specific MACT is required.
 - When the new Boiler MACT is promulgated, you get up to an 8-year compliance deferral (ramp-up).
- **Strongly consider** case-specific MACT if currently renewing or revising Title-V permit. Avoid risking a permit remand by US EPA.

SHIFTING GEARS -- Brief Update on the CISWI Rule

- Rule set New Source Performance Standards (NSPS) for Commercial & Industrial Solid Waste Incineration (CISWI) Units.
40 CFR 60, Subpart CCCC (New units) and DDDD (Existing units)
- Rule applicable to facilities that combust *commercial* and *industrial* solid waste (not municipal, medical, or hazardous wastes).
- Promulgated by EPA under Section 129 of CAA (solid waste combustion), not under Section 112 (MACT for HAPS).
- Applicable whether facility is a major or minor source of HAPs.
- Rule set “MACT-like” emission limits for certain HAPs (e.g., HCl, Hg, Cd, dioxin), but also set limits for certain criteria pollutants (e.g., NO_x, CO, SO₂).
- CISWI was promulgated in 2000; amended 2005; vacated 2007.
- Case-specific MACT does not apply for the vacated CISWI Rule. Cannot legally be applied to sources regulated under Section 129.

CISWI Rule – What Did Critics and the Court Object to?

Some types of waste combustion facilities ended up being regulated under the Boiler MACT, that should have come under CISWI:

- **Definition of Solid Waste.** Disagreement over what materials should be regulated as a “fuel” material versus as a “waste” material (e.g., C&D wood, old tires)
- **Arbitrary Exemption.** Any waste combustion facility that recovers energy was exempted from CISWI regulation.

CISWI Rule – Where is EPA Headed?

EPA's Focus: Resolve the fundamental uncertainty common to both the CISWI and Boiler MACT rules:

- **Determine how to classify combusted materials:**
 - A “fuel” (combustion is regulated under Boiler MACT – Section 112)
vs.
 - A “waste” (combustion is regulated under CISWI – Section 129).
- **Accomplish this by:**
 - Analyzing emissions and fuel testing results from the Section-114 data request sent to Boiler MACT and CISWI sources (results were due October 2009)
 - Finalizing the fuel vs. waste classification rule proposed in January 2009.

CISWI Rule – Schedule for Promulgating New Rule?

1. EPA has not discussed a specific schedule.
2. Speculation: The schedules for CISWI and Boiler MACT rules should coincide. Why?
 - Resolving the fuel vs. waste classification issue will enable promulgation of both rules.
 - Sources will need to have both rules available at the same time to know which applies.
3. What to do?
 - Carefully review the new CISWI and Boiler MACT rules when they are proposed for comment by EPA, to determine which would apply and implications.
 - No case-specific MACT requirement exists for CISWI sources.

QUESTIONS?

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