
ENVIRONMENTAL Fact Sheet



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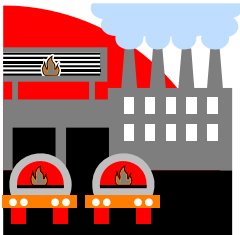
Summary of Federal Regulations Controlling Air Emissions from Industrial, Commercial, and Institutional Boilers

What is the new federal boiler rule?

On March 21, 2011, the U.S. Environmental Protection Agency (USEPA) finalized the new federal boiler rule aimed at reducing the emissions of hazardous air pollutants (HAPs) from existing and new industrial, commercial, and institutional boilers located at non-major (area source) facilities. The rule is entitled *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* [40 CFR Part 63, National Emissions Standard for Hazardous Air Pollutants (NESHAP), Subpart JJJJJJ] otherwise known as the “Boiler Area Source Rule.”



What are hazardous air pollutants (HAPs)?



Hazardous air pollutants are pollutants that have the potential to cause severe human health effects or ecosystem damage. A list of the 188 HAPs specifically regulated by the Clean Air Act Amendments of 1990 (CAAA) in Section 112, can be found at: <http://www.epa.gov/ttnatw01/orig189.html>. Examples of HAPs include dioxins, benzene, arsenic, beryllium, mercury, vinyl chloride, asbestos, and polychlorinated biphenyls (PCBs). These substances can impact public health through direct breathing, through the skin, and ingestion of food contaminated from toxins deposited on soil or into waterways.

What is the difference between a major source and an area source of HAPs?

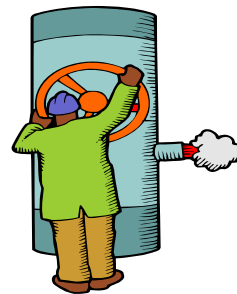
A *major source* is a facility that emits, or has the potential to emit 10 tons per year or more of any HAP or 25 tons per year or more of any combination of HAPs. An *area source* is any stationary source that is not a major source of HAPs. Most air emission sources in New Hampshire would be considered area sources and therefore, would be subject to the Boiler Area Source Rule.

What is a boiler and which boilers are affected?

A boiler uses controlled flame combustion to burn coal and other substances such as oil or biomass to produce steam or hot water, which is then used for energy or heat. The Boiler Area Source Rule affects boilers that burn coal, oil, biomass, or other solid and liquid non-waste materials that are located at area source commercial (e.g., laundries, apartments, hotels), institutional (e.g., schools, churches, medical centers, municipal buildings), or industrial (e.g., manufacturing, printing, greenhouses) facilities.

Which boilers are not affected?

- Any gas-fired boiler. Gas-fired boiler includes any boiler firing gaseous fuels not combined with any solid fuels. Gaseous fuels include, but are not limited to: natural gas, process gas, landfill gas, coal-derived gas, refinery gas, hydrogen, and biogas. A gas-fired boiler that periodically fires liquid fuels during gas curtailment and supply emergencies or for periodic (not to exceed 48 hours per year) testing is still considered a gas-fired boiler.
- Hot water heaters (≤ 120 U.S. gallons, ≤ 160 psig, and $\leq 210^{\circ}\text{F}$ (90°C))
- Waste heat boilers
- Boilers used as control devices for other NESHAP standards
- Boilers subject to other NESHAP or CAAA Section 129 standards, or hazardous waste boilers
- Research and development boilers



How do businesses comply with the Boiler Area Source Rule?

Rule requirements vary depending on the boiler fuel type, construction date, and size. The table below summarizes the requirements for each type of boiler.

Summary of Boiler Area Source Rule Emission Limit and Work Practice Requirements

Boiler Size and Construction Date	Fuel type ¹	Summary of Requirements
All Gas-fired boilers	Gas (all types)	<ul style="list-style-type: none"> • None (not covered by the rule)
Other New and Existing Small boilers (< 10 MMBtu/hr)	Coal, Biomass and Oil	<ul style="list-style-type: none"> • Tune-up every other year
Existing boilers: Commenced construction or reconstruction of the boiler on or before June 4, 2010		
Existing Large boilers (≥ 10 MMBtu/hr)	Coal	<ul style="list-style-type: none"> • Emission limits for mercury (Hg) and carbon monoxide (CO) • One-time energy assessment
	Biomass and Oil	<ul style="list-style-type: none"> • Tune-up every other year • One-time energy assessment
New boilers: Commenced construction/reconstruction or switched from natural gas fuel to solid fossil fuel, biomass or liquid fuel after June 4, 2010		
New Large boilers (≥ 10 MMBtu/hr)	Coal	<ul style="list-style-type: none"> • Emission limits for Hg, CO, and particulate matter (PM)
	Biomass and Oil	<ul style="list-style-type: none"> • Emission limit for PM • Tune-up every other year

¹ For boilers that burn multiple fuels, the fuel type is determined based on the heat input contribution from each fuel burned during the 12 months preceding the compliance test or tune-up.

Meet Emission Limits

- Conduct initial performance (stack and/or fuel analysis) test and establish operating parameters.
- Repeat performance stack tests every 3 years.
- Repeat performance fuel analysis tests and monthly fuel analysis for each type of fuel.
- Develop and follow a site-specific testing plan and site-specific monitoring plan.

- Minimize the boiler's startup and shutdown and follow the manufacturer's recommended procedures for startup and shutdown.
- Monitor and collect data to demonstrate compliance with operating limits.
- Conduct performance evaluations of your continuous monitoring systems

Conduct a One-Time Energy Assessment Performed by a Qualified Energy Assessor

- Assess the boiler and its energy use systems to identify cost-effective energy conservation measures.

Conduct Tune-up

- Conduct a tune-up every 2 years.

What are the compliance dates?

Existing Sources: Tune-up by March 21, 2012
 Emission limits and Energy Assessment by March 21, 2014
 New Sources: May 20, 2011 or upon start-up



What records are required?

- Record the types and amount of fuel used each month.
- Record that you conducted startups and shutdowns according to the manufacturer's recommended procedures.
- Maintain records of all required notifications and reports, with supporting documentation.
- Maintain records that demonstrate compliance with emissions and operating limits (if applicable), tune-ups, and the energy assessment.

What reports are required?

A complete table of compliance deadlines can be found at <http://des.nh.gov/organization/divisions/air/boiler-rule/documents/timeline.pdf>.

- Submit an Initial Notification and a Notification of Compliance Status. If applicable, certify that you completed an energy assessment and/or tune-up.
- Boilers not subject to emission limits:
 - Prepare a Compliance Certification Report by March 1 of every second year. Submit upon request.
- Boilers subject to emission limits:
 - Prepare an annual Compliance Certification Report by March 1 of each year. Submit upon request.
 - Prepare and submit the annual Compliance Certification Report by March 15 if your boiler had any deviations from emission limits or operating parameters.
- Provide notification 60 days prior to switching subcategories (fuel switching) or firing solid waste.
- Submit test results to EPA's Central Data Exchange using the Electronic Reporting Tool within 60 days of each performance test.

For Information and Assistance

Information and copies of the federal boiler regulations and other materials can be found at the EPA's website: <http://www.epa.gov/boilercompliance/>. Additional information and guidance for New Hampshire sources can also be found at <http://des.nh.gov>, then go to "A to Z LIST" and click on "Boiler Rule," or by calling the DES Air Permitting Program at (603) 271-1370.