

**What are the compliance dates?**

**EXISTING SOURCES:** 3/21/14

**NEW SOURCES:** 5/20/2011 or upon start-up

**What reports are required?**

- ◆ Prepare and submit Initial Notification by 1/20/14.
- ◆ Prepare Notification of Compliance Status. Certify completion of energy assessment and/or tune-up, as applicable. Submit electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) on EPA's Central Data Exchange (CDX).
- ◆ Prepare Compliance Certification Report by March 1 of the year after the calendar year during which a tune-up is completed for boilers not subject to emission limits. Submit upon request.
- ◆ Prepare an annual Compliance Certification Report for boilers with emission limits by March 1 of each year. Submit upon request. Prepare and submit the Report by March 15 if any deviations from an emission limit or operating parameter.
- ◆ Provide notification 30 days prior to firing solid waste.
- ◆ Provide notification within 30 days of a fuel switch or physical change resulting in the boiler being in a different subcategory within subpart JJJJJ, becoming subject to subpart JJJJJ, or switching out of subpart JJJJJ.
- ◆ Submit test results to EPA's WebFIRE database using CEDRI that is accessed through EPA's CDX within 60 days of each performance test. Submit the data in the file format of EPA's Electronic Reporting Tool.

**What records are required?**

- ◆ Types and amount of fuel used monthly for boilers with emission limits.
- ◆ Documentation that startups and shutdowns were done according to manufacturer's recommended procedures for boilers subject to emission limits.
- ◆ All required notifications and reports, with supporting documentation.
- ◆ Demonstration of compliance with emission limits, operating limits, tune-ups, and the energy assessment, as applicable.
- ◆ Malfunction occurrences, duration, and actions taken.
- ◆ Days of operation per year for seasonal boilers.
- ◆ Copy of the federally enforceable permit and records of fuel use for limited-use boilers.

**You can also contact your Regional EPA air toxics office:**

Address	States	Website/ Phone Number
<b>REGION 1</b>		
5 Post Office Square, Suite 100 Mail code: OES04-2 Boston MA 02109-3912	CT, MA, ME, NH, RI, VT	<a href="http://www.epa.gov/region1">www.epa.gov/region1</a> (888)372-7341 (617) 918-1656
<b>REGION 2</b>		
290 Broadway New York, NY 10007-1866	NJ, NY, PR, VI	<a href="http://www.epa.gov/region2">www.epa.gov/region2</a> (212) 637-4023
<b>REGION 3</b>		
1650 Arch Street Philadelphia, PA 19103-2029	DE, MD, PA, VA, WV, DC	<a href="http://www.epa.gov/region3">www.epa.gov/region3</a> (800) 228-8711 (215) 814-2061
<b>REGION 4</b>		
Atlanta Federal Center 61 Forsyth Street, SW Atlanta, GA 30303-8960	FL, NC, SC, KY TN, GA, AL, MS	<a href="http://www.epa.gov/region4">www.epa.gov/region4</a> (404) 562-9131
<b>REGION 5</b>		
77 West Jackson Blvd. Chicago, IL 60604-3507	IL, IN, MI, WI, MN, OH	<a href="http://www.epa.gov/region5">www.epa.gov/region5</a> (312) 886-6812 (312) 353-6684 (312) 886-6798
<b>REGION 6</b>		
1445 Ross Avenue Suite 1200 Dallas, TX 75202-2733	AR, LA, NM, OK, TX	<a href="http://www.epa.gov/region6">www.epa.gov/region6</a> (800) 621-8431* (214)-665-7171
<b>REGION 7</b>		
901 North Fifth Street Kansas City, KS 66101	IA, KS, MO, NE	<a href="http://www.epa.gov/region7">www.epa.gov/region7</a> (800) 223-0425 (913)-551-7003
<b>REGION 8</b>		
1595 Wynkoop St. Denver, CO 80202-1129	CO, MT, ND, SD, UT, WY	<a href="http://www.epa.gov/region8">www.epa.gov/region8</a> (800) 227-8917* (303) 312-6460
<b>REGION 9</b>		
75 Hawthorne Street San Francisco, CA 94105	CA, AZ, HI, NV, GU,AS, MP	<a href="http://www.epa.gov/region9">www.epa.gov/region9</a> (415) 744-1197
<b>REGION 10</b>		
1200 6th Ave. Suite 900, AWT-107 Seattle, WA 98101	AK, ID WA, OR	<a href="http://www.epa.gov/region10">www.epa.gov/region10</a> (800) 424-4372* (206) 553-6220

**For More Information**

Copies of the rule and other technical materials:

<https://www.epa.gov/stationary-sources-air-pollution/industrial-commercial-and-institutional-area-source-boilers>

Boiler compliance at area sources:

<https://www.epa.gov/stationary-sources-air-pollution/compliance-area-sources-industrial-commercial-and-institutional>

**Summary of Regulations**

**National Emission Standards for Hazardous Air Pollutants (NESHAP):**

**Area Sources  
Industrial, Commercial,  
and Institutional Boilers**

40 CFR Part 63 Subpart JJJJJ



**FINAL RULE  
March 21, 2011 (76 FR 15554)**

**FINAL RULE AMENDMENTS  
February 1, 2013 (78 FR 7488)  
September 14, 2016 (81 FR 63112)**

## Which boilers are affected?

- ◆ Boilers that burn coal, oil, biomass, or other solid and liquid non-waste materials AND located at area source commercial (e.g., laundries, apartments, hotels), institutional (e.g., schools, churches, medical centers, municipal buildings), or industrial (e.g., manufacturing, refining, processing, mining) facilities.

## What is a boiler?

- ◆ 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.

## What is an area source?

- ◆ Any source that is not a major source.
- ◆ Major sources emit or have potential to emit  $\geq 10$  TPY of any single air toxic or  $\geq 25$  TPY of combined air toxics.

## Which boilers are not affected?

- ◆ Any gas-fired boiler.
- ◆ Hot water heaters.
- ◆ Waste heat boilers.
- ◆ Boilers used as control devices for other standards.
- ◆ Boilers subject to other NESHAP, section 129 standards, or hazardous waste boilers.
- ◆ Research and development boilers.
- ◆ Temporary boilers.
- ◆ Residential boilers.
- ◆ Electric boilers.
- ◆ Electric utility steam generating units.

## How do I comply?

Rule requirements vary depending on boiler: 1) Fuel type, 2) Construction date, and 3) Size.

## Meet Emission Limits

- ◆ Conduct initial performance stack test and establish operating parameters.
- ◆ Repeat performance tests every 3 years. (Note: For PM, if initial performance test shows that emissions are  $\leq$  half of the limit, further PM performance testing is required every 5 years.)
- ◆ Develop and follow a site-specific testing plan and site-specific monitoring plan.

## Summary of Boiler Area Source NESHAP Emission Limit and Work Practice Requirements

Boiler Size and Construction Date	Fuel type	Summary of Requirements
<b>All Gas-fired boilers</b>	Gas (all types)	<ul style="list-style-type: none"> <li>• None (not covered by the rule)</li> </ul>
<b>Other New and Existing Small boilers (&lt;10 MMBtu/hr)</b>	Oil, Biomass and Coal	<ul style="list-style-type: none"> <li>• Tune-up every other year or every 5 years</li> </ul>
<b>Existing boilers:</b> Commenced construction or reconstruction of the boiler on or before June 4, 2010 Note: An existing dual-fuel fired boiler that fuel switches from gaseous fuel to solid fossil fuel, biomass, or liquid fuel after June 4, 2010 is considered to be an existing source as long as the boiler was designed to accommodate the alternate fuel		
<b>Existing Large boilers (<math>\geq 10</math> MMBtu/hr)</b>	Biomass and Oil	<ul style="list-style-type: none"> <li>• Tune-up every other year</li> <li>• One-time energy assessment</li> </ul>
	Coal (excluding limited-use boilers)	<ul style="list-style-type: none"> <li>• Emission limits for Hg and CO</li> <li>• One-time energy assessment</li> </ul>
	Limited-use Coal	<ul style="list-style-type: none"> <li>• Tune-up every 5 years</li> <li>• No emission limits or energy assessment</li> </ul>
<b>New boilers:</b> Commenced construction or reconstruction after June 4, 2010		
<b>New large boilers (<math>\geq 10</math> MMBtu/hr)</b>	Biomass and Oil (excluding limited-use, seasonal, and new oil-fired boilers bolded below)	<ul style="list-style-type: none"> <li>• Emission limit for PM</li> <li>• Tune-up every other year or every 5 years</li> </ul>
	Coal (excluding limited-use boilers)	<ul style="list-style-type: none"> <li>• Emission limits for Hg, CO, and PM</li> </ul>
	Limited-use Coal, Biomass, and Oil and Seasonal Biomass and Oil	<ul style="list-style-type: none"> <li>• Tune-up every 5 years</li> <li>• No emission limits</li> </ul>

- ◆ Conduct initial and quarterly fuel analysis for each type of fuel if the Hg constituents in the fuel are greater than half of the Hg emission limit. Further fuel analysis sampling is required every 12 months if the Hg constituents in the fuel are measured to be  $\leq$  half of the Hg emission limit.
- ◆ Minimize boiler startups and shutdowns and follow the manufacturer's recommended procedures
- ◆ Monitor and collect data to demonstrate compliance with operating limits.
- ◆ Conduct performance evaluations of continuous monitoring systems.
- ◆ As an alternative to Hg stack testing, a fuel analysis may be conducted to demonstrate that Hg fuel pollutant input is lower than the Hg emission limit.
- ◆ As an alternative to CO stack testing, CO/oxygen CEMS may be used to demonstrate compliance.
- ◆ **New oil-fired boilers that combust only ultra-low-sulfur liquid fuel oil (i.e., distillate oil that has less than or equal to 15 ppm sulfur) are not subject to the PM emission limit.**

## Conduct a One-Time Energy Assessment

- ◆ Assess the boiler and its energy use systems to identify cost-effective energy conservation measures.
- ◆ The rule's energy assessment requirement is also satisfied when an assessment completed on or after January 1, 2008, meets or is amended to meet the rule's requirements or a facility operated under an energy management program according to ENERGY STAR guidelines or compatible with ISO 50001 for at least 1 year between January 1, 2008 and March 21, 2014.

## Conduct Tune-up

- ◆ Conduct a tune-up every 2 years or 5 years, as applicable.
- ◆ Tune-up frequency is reduced for limited-use boilers, seasonal boilers, oil-fired boilers with heat input capacity  $\leq 5$  MMBtu/hr, and boilers with an oxygen trim system that would otherwise be subject to a biennial tune-up.