National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources

Module: 40 CFR Part 63 Subpart JJJJJJJJ
Existing Large Boilers
Initial Notification to Delegated Authority

Initial Notification: Due on 1/20/14

- Owner/operator name and address
- Physical location of boiler(s)
- Relevant standard
- Anticipated compliance date
- Source size, design, and method of operation
- Types of emission points within the source subject to the standard and types of HAP emitted
- Statement that source is an area source
Work Practice Requirements

- No numeric emission limits for oil or biomass boilers

- Tune ups every other year
  - First tune-up to be completed on or before March 21, 2014
  - Subsequent tune-ups conducted no more than 25 months after previous tune-up

- One time energy assessment
  - To be completed on or before March 21, 2014
Tune up every 5 years if:

- Unit qualifies as a seasonal or limited-use boiler;
- Boiler equipped with oxygen trim system

First tune-up by March 21, 2014

Subsequent tune-ups conducted no more than 61 months after previous tune-up
Tune-Up

You must:

• Inspect the burner, clean/replace components as needed
• Inspect flame pattern, adjust burner as needed
• Inspect the system controlling the air-to-fuel ratio
• Optimize emissions of CO
• Measure effluent stream CO and O$_2$, before and after tune-up

• If the unit is not operating on the required tune-up date, conduct within 30 days of startup.
• Tune-up must be conducted while burning the type of fuel that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.
Maintain a report of the tune up onsite. The report must include the following:

- CO and O₂ in the effluent stream, before and after tune-up
- Description of any corrective actions taken as part of the tune-up
- Type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period
One-Time Energy Assessment

All existing large boilers must conduct a one-time energy assessment (except limited-use boilers)

- Must be performed by a qualified energy assessor
- If completed on/after 1/1/2008 and meets or is amended to meet the rule requirements then satisfies requirement
- Sources already operating under certain energy management programs satisfy the assessment requirement
  - Example: ISO 50001 energy management system or compatible
One-Time Energy Assessment

- **Energy assessment must include:**
  - Visual inspection of the boiler system
  - Evaluation of operating characteristics of the facility, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints
  - Inventory of major systems consuming energy from affected boiler(s)
Energy assessment must include:

- Review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage
- List of major energy conservation measures
- Energy savings potential of the energy conservation measures identified
- Report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
Energy assessments must evaluate the:

- **Boiler system**
  - Boiler; and
  - Associated components, such as, the feedwater systems, combustion air systems, fuel systems (including burners), blowdown systems, combustion control systems, steam systems, and condensate return systems, directly connected to and serving the energy use systems

- **Energy use systems (meeting energy production threshold)**
  - Process heating; compressed air systems; machine drive (motors, pumps, fans); process cooling; facility heating, ventilation, and air conditioning systems; hot heater systems; building envelope, and lighting; or
  - Other systems that use steam, hot water, process heat, or electricity, provided by the affected boiler
  - Energy use systems are only those systems using energy clearly produced by affected boilers.
Qualified Energy Assessor

Qualified energy assessor is defined in section 63.11237 of the rule

- The qualified energy assessor may be a company employee or outside specialist

- Have a background, experience and expertise to evaluate energy saving opportunities for your type of boiler

- The energy assessor qualification requirement is waived in instances where past or amended energy assessments are used to meet the energy assessment requirement

EPA Region 1 List of Qualified Energy Assessors
– http://www.epa.gov/boilercompliance/wher eyoulive.html#region1
What other records are required?

- Notifications and reports, with supporting documentation
- Compliance with tune-ups:
  - Identify each boiler, tune-up date, procedures followed, and tuning specifications
- Malfunctions (occurrence and duration)
- Actions taken during malfunction to minimize emissions
- Records for seasonal or limited-use boiler verifying qualification
Records Retention

- Records must be readily available for review
- Keep records for 5 years
  - First 2 years: records on-site or instantly accessible by computer from central location
  - Years 3 to 5: Can be kept off-site
Notifications and Reports

- **Initial notification:** due January 20, 2014 or within 120 days after the source becomes subject, whichever is later.

- Notification of Compliance Status (NOCS): Initial NOCS due on 7/19/2014

- **Compliance Certification Report:** prepare by March 1 of the year after the calendar year during which a tune-up is completed (submit only if requested)

- Notification of Intent to commence combustion of solid waste: due 30 days prior to commencement

- **Notification of Change:** due within 30 days of the change
  - Fuel switch
  - Physical change to boiler
  - Permit limits
Notification of Compliance Status (NOCS)

Need to certify compliance that the initial tune up and energy assessment were completed.

As of January 1, 2014, the rule requires electronic reporting of the NOCS using the Compliance and Emissions Data Reporting Interface (CEDRI) through EPA’s Central Data Exchange (www.epa.gov/cdx). EPA is no longer accepting paper copies of the NOCS; however, sources which already submitted the paper NOCS prior to 1/1/2014 are not required to resubmit the NOCS electronically.
Compliance Certification Report

Existing large boilers that are required only to conduct a biennial or 5-year tune-up and are not subject to emission or operating limits, you may prepare only a biennial or 5-year Compliance Certification Report. Reports should be prepared by March 1 of the year after the calendar year during which a tune-up is completed.

Report must include:

- Company name and address
- A statement signed by a responsible official certifying accuracy and completeness of the certification and a statement that the source has complied with all of the relevant requirements of the rule

You do not need to submit this report, but it can be requested by your delegated authority.
Notifications

If you intend to commence or recommence combustion of solid waste, you must provide 30 days prior notice of the date upon which you will commence or recommence combustion of solid waste.

If you have switched fuels or made a physical change to the boiler and the fuel switch or change resulted in the applicability of a different subcategory within subpart JJJJJJJJ, in the boiler becoming subject to subpart JJJJJJJJ, or in the boiler switching out of subpart JJJJJJJJ due to a change to 100 percent natural gas, or you have taken a permit limit that resulted in you being subject to subpart JJJJJJJJ, you must provide notice of the date upon which you switched fuels, made the physical change, or took a permit limit within 30 days of the change.
Where do I send notifications and reports?

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100, Mail code: OES04-2
Boston, MA 02109-3912
Attention: Air Clerk

EPA has developed an electronic compliance reporting system for the NOCS. As of 1/1/2014, sources are required to submit the NOCS reports electronically and sources will receive an email confirming EPA’s receipt.
Visit the Boiler Compliance Page

www.epa.gov/boilercompliance

- Brochures
- Fact sheets
- Regulations
- Example notifications
- Tune-up guidance
- Small Entity Compliance Guide For Area Source Boilers
  (This will help you determine how your boiler is affected by this rule.)
- ...and more!
Contacts

For Sources in New England and Connecticut:

Air Toxics Coordinator
U.S. EPA New England
617-918-1656

Compliance Analysis & Coordination Unit
CT Department of Energy & Environmental Protection
860-424-4152
Take Aways...

**Work Practice Requirements:**
- One-time energy assessment
- Tune-up every other year
- Tune up every five years if:
  - Seasonal boiler or limited use boiler
  - Boiler has oxygen trim system

**Recordkeeping:**
- Malfunctions and subsequent corrective actions taken
- Notifications and reports, with supporting documents
- Compliance with tune-up and energy assessment
- Keep records for 5 years

**Reporting:**
- Initial notification
- Notification of Compliance Status
- Compliance Certification Report (every 2 or 5 years)
- Notification of change (fuel switch, physical change, etc)