Boiler GACT
40 CFR 63 Subpart JJJJJJJ (6J)
Are You In Compliance?

Mecklenburg County
Land Use and Environmental Services Agency
Air Quality Division

Helping you breathe easy... for life
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If your site operates a boiler and you are not classified as a major source, you are subject to the boiler GACT.

The compliance date for existing boilers was March 21, 2014!!

Is your site in compliance?!?
Don’t Worry Because…..

Gas-fired boilers are exempt!!!

Other exemptions:
- Hot water heaters (capacity <120 gallons)
- Electric boilers
- Residential boilers
- Temporary boilers
- Boiler regulated under another GACT/MACT
- Boilers burning waste and covered under incinerator rules
- Research and development boilers (does not include boilers that primarily provide steam to a process or heat at a research and development facility)
- Boilers used as a control device to comply with another Subpart of Part 60, 61, 63 or 65
- Electric Utility Steam Generating Units (EGUs) covered by Part 63 Subpart UUUUUU
- Boilers required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by subpart EEE
Are you in Compliance?

Existing Boilers (constructed on or before June 4, 2010), have you completed...

- Existing boilers ≤ 10 MMBtu/hr
  - Tune-up

- Existing boilers ≥ 10 MMBtu/hr
  - Oil and biomass boilers:
    - One time energy assessment (except limited use)
    - Tune-up
  - Coal-fired boilers:
    - One time energy assessment (except limited use)
    - Performance testing for CO and Hg
    - Minimize startup and shutdown periods and conduct startup and shutdowns in accordance with manufacturer’s recommendation
Are You in Compliance?

Have you submitted...

Notification of Compliance Status (NOCS) is due July 19, 2014!!

The NOCS should be submitted electronically using EPA’s Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA’s Central Data Exchange (CDX)

You should have submitted your initial notification on or before January 20, 2014.
Continuing Compliance

- **Tune-ups** are required every 2 years
  - Oil-fired boilers ≤ 5 MMBtu/hr, seasonal boilers, limited use boilers, and boilers with O₂ trim systems - due every 5 years
- **Stack testing** is required every 3 years
  - If PM emissions are ≤ half the PM emission limit, no further testing required
- **Fuel analyses** for Hg is required quarterly
  - If Hg emissions are ≤ half the Hg emission limit, no further testing required
- **Fuel Switch/Change Notification**
  - If you have switched fuels or made a physical change to the boiler, notification is due within 30 days of the change
What about New Boilers

• New boilers ≤ 10 MMBtu/hr
  – Tune-ups every 2 years after startup
    • Oil-fired boilers ≤ 5 MMBtu/hr, seasonal boilers, limited use boilers, and boilers with O\textsubscript{2} trim systems - due every 5 years after startup

• New boilers ≥ 10 MMBtu/hr
  – Tune-up (except for coal-fired boilers)
  – PM, Hg, and CO emission limits
  – Minimize startup and shutdown periods and conduct startup and shutdowns in accordance with manufacturer’s recommendation (except seasonal oil or biomass boilers)

*New boilers – constructed after June 4, 2010
New Coal, Oil or Biomass Boilers

- Tune-ups are due no later than 25 or 61 months after startup (depending on tune-up frequency)
- Compliance demonstrations for PM, Hg, and CO emission limits are due within 180 days of startup
  - Testing required every 3 years, unless PM or Hg emissions are less than half the limit
Boilers Subject to Emission Limits

- May demonstrate compliance by stack testing, fuel analysis, or a continuous monitoring system (CMS)
- Stack testing will set operating limits that must be continuously monitored
- Must develop a site specific monitoring plan
Important...

Existing dual-fuel boilers that switch fuels from gas to coal, biomass, or oil remain existing sources. **No stack testing required!!**

New oil-fired boilers that combust low sulfur oil (≤ 0.5% sulfur) are exempt from PM emission limits provided the boiler does not use a control device. **No stack testing required!!**
If you have a new boiler, you need to submit...

- **Initial Notification** - within 120 days of becoming subject to the GACT
- **Notification of Intent to Conduct a Performance Test** at least 60 days before the test
- **NOCS** within 120 days of compliance date (for new sources that is upon start-up)
- If you are conducting a performance test to demonstrate compliance, the **NOCS** is due within 60 days of completing the test
GACT 6J Reports

• Must prepare an annual compliance certification report each year by March 1\textsuperscript{st}.
  – You only need to submit the report if there was a deviation!! Submittals are due March 15\textsuperscript{th}.
  – For boilers that are only required to complete a tune-up, a 2 year or 5 year compliance report is required.

• Keep onsite for your inspector’s review!!
# Boiler GACT Resources


(NCDAQ Summary 3-22-15 / 631.111200-11201 / See also Tables 1-3 in Subpart JJJJ JJ)

<table>
<thead>
<tr>
<th>Source Category</th>
<th>Fuel Category</th>
<th>Heat Input MMBtu/hr</th>
<th>Emission Limits (EL)</th>
<th>Work Practice Standard</th>
<th>Work Practice Standard</th>
<th>Work Practice Standard</th>
<th>Compliance Date</th>
<th>Initial Notification Due</th>
<th>Notification of Compliance Status Due</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>PM lb/MMBtu</td>
<td>Hg lb/MMBtu</td>
<td>CO ppm</td>
<td>Boiler tune-up every 2 or 5 yrs**</td>
<td>Energy Assessment (EA)</td>
<td>MSS/EA/EL</td>
<td>3/21/14</td>
</tr>
<tr>
<td>All (coal/oil/biomass) fuel-fired boilers, except any gaseous fuel-fired boilers</td>
<td>&lt; 10</td>
<td>None</td>
<td>None</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Exist: 3/21/14</td>
<td>New: 5/20/11 or startup, whichever is later</td>
<td>Same as those below</td>
</tr>
<tr>
<td>Any size, existing or new, limited use</td>
<td></td>
<td></td>
<td>2.2E-5</td>
<td>420 @3% O₂</td>
<td>No</td>
<td>One time energy assessment</td>
<td>Yes</td>
<td>3/21/14</td>
<td>Existing Sources: 01/2014</td>
</tr>
<tr>
<td>Existing</td>
<td>Coal</td>
<td>≥ 10</td>
<td>None</td>
<td>None</td>
<td>Yes</td>
<td>(EA)</td>
<td>No</td>
<td>3/21/14</td>
<td>7/19/14 for TU/EA</td>
</tr>
<tr>
<td></td>
<td>Biomass</td>
<td>≥ 10 ≤ 30</td>
<td>0.42</td>
<td>420 @3% O₂</td>
<td>No</td>
<td>None</td>
<td>Yes</td>
<td>5/20/11 or startup, whichever is later</td>
<td>New Sources: 120 days after startup for TUMSS and 60 days after stack test</td>
</tr>
<tr>
<td></td>
<td>Oil</td>
<td>≥ 30</td>
<td>0.03</td>
<td>420 @3% O₂</td>
<td>No</td>
<td>None</td>
<td>Yes</td>
<td>5/20/11 or startup, whichever is later</td>
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<td>None</td>
<td>Yes</td>
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<tr>
<td></td>
<td>Biomass</td>
<td>≥ 10 ≤ 30</td>
<td>0.07</td>
<td>420 @3% O₂</td>
<td>No</td>
<td>None</td>
<td>Yes</td>
<td>5/20/11 or startup, whichever is later</td>
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</tr>
<tr>
<td></td>
<td>Seasonal (oil or biomass)</td>
<td>≥ 10</td>
<td>None</td>
<td>None</td>
<td>Yes</td>
<td>(EA)</td>
<td>No</td>
<td>5/20/11 or startup, whichever is later</td>
<td>New Sources: 120 days after startup for TUMSS and 60 days after stack test</td>
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</tbody>
</table>

*Can demonstrate compliance with PM limit by combusting only oil that contains no more than 0.50 weight percent sulfur.

**Existing <= 5 MMBtu oil fired boilers, seasonal biomass and oil fired boilers, limited use boilers and boilers with oxygen trim systems perform tune-up by 3/21/14 then every five years;

New/recon: No initial tune-up required for new sources. <5 MMBtu oil fired boilers, seasonal biomass and oil fired boilers, limited use boilers and boilers with oxygen trim systems tune-up every five years after startup.

- See Table 2 in the rule for "operating limits for boilers with emission limits" (for add-on controls, fuel analysis, stack testing, continuous O₂ monitor - required for CO standards).
- Stack Testing: New sources by 9/17/11 (180 days after March 21, 2011), or within 180 days of startup, whichever is later. Existing sources: within 180 days of the compliance date.
Boiler GACT Resources

MCAQ’s GACT 6J webpage:
http://charmeck.org/mecklenburg/county/AirQuality/PermittingRegulations/Pages/Boilers.aspx

NC DAQ’s GACT 6J webpage:
http://daq.state.nc.us/toxics/areasources/subpart6j/

EPA’s GACT 6J webpage:
http://www.epa.gov/ttn/atw/boiler/boilerpg.html
Questions?