



BAY AREA
AIR QUALITY
MANAGEMENT
DISTRICT



Frequently Asked Questions Boilers & the Air District's New Amendments: Regulation 9, Rule 7

Updated July 2011

What is Regulation 9-7?

This Air District regulation limits the air pollution emissions of nitrogen oxides, or NO_x, and carbon monoxide, or CO, from both existing and new industrial, institutional, and commercial boilers, steam generators and process heaters, all of which are collectively known as “boilers.”

These types of boilers are most commonly found in schools, hospitals, public buildings, large apartment/condominium complexes and some commercial or industrial operations. There are also other Air District rules which address boilers found at refineries and public utilities.

This rule was amended on July 30, 2008 and May 4, 2011, requiring that owners and operators of smaller boilers register them with the Air District by January 1, 2011 and **meet new emission limits starting in January 1, 2013. Manufacturers of the smaller boilers are required to certify to the Air District that any new boilers for sale on, or after, January 1, 2012 meet the required, new emission limits. Note: Larger boilers' (equal to or greater than 10 million BTU per hour) emission limits compliance dates remain January 1, 2012.** Boilers and steam generators have requirements for **insulation** and **exhaust temperature limits**.

Does this rule apply to my boilers?

It may, depending on the heat rating of your boiler and other factors.

- Larger boilers with a heat rating equal to or greater than 10 MM BTU/hr are required to have an Air District **Permit to Operate** AND the rule applies in most cases. For requirements on District permits, please see **Regulation 2, Rule 1** at www.baaqmd.gov/rules.
- If the heat rating of your boiler is greater than 2 MM BTU/hr and less than 10 MM BTU/hr, in most cases the rule applies (see exemptions in the FAQs below). Most boilers of this size must **register** with the Air District. Registration and other requirements are outlined in the FAQs below.

How do I check the rated heat input of my boiler?

The rated heat input of your boiler can be found several ways.

- Locate and read the label or tag that is affixed to the boiler;
- Contact the Manufacturer or the local Manufacturer's representative by phone, provide the model number, and request the heat rating or go to the Manufacturer's website;
- Contact your Maintenance or Repair Service Representative.

How do I know if my boiler is exempt from this rule?

The following boilers are exempt:

- Boilers with a rated heat input less than 1,000,000 BTU/hr fired with any fuel;

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How do I know if my boiler is exempt from this rule? (cont.)

- Boilers with a rated heat input no greater than 2,000,000 BTU/hr if fired with Natural Gas or liquefied petroleum gas, or any combination of these fuels.
- Boilers, steam generators and process heaters that are used in petroleum refineries (these boilers may be subject to another Air District rule, Regulation 9-10);
- Boilers used by public electric utilities or qualifying small power production facilities (these boilers may be subject to another Air District rule, Regulation 9-11);
- Boilers that recover waste heat from the exhaust of combustion turbines or reciprocating internal combustion engines (often found at landfills);
- Kilns, ovens, and furnaces used for drying, baking, heat treating, cooking, calcining, or vitrifying.
- Boilers that use less than 10 percent of their annual maximum heat capacity (*limited exemption only*, other requirements apply).

If the heat rating of my boiler lies between 2 MM BTU/hr and 10 MM BTU/hr, and it is not exempt from the rule, what do I need to do to comply?

All non-exempt boilers in this heat rating size must **register** with the Air District starting **January 1, 2011**. Each facility must pay a one-time fee for each boiler. The first boiler is registered for a fee of **\$455** and the registration fee for each additional boiler is **\$54**. You can register online at: www.baaqmd.gov/registration.

After you register, other requirements related to the emissions limits are summarized below: There are also other requirements - please see Regulation 9 - 7 at: www.baaqmd.gov/rules for a complete list.

For boilers with a heat rating greater than 2 MM BTU/hr and less than 10 MM BTU/hr:

[NOTE: The recent Air District amendments to the rule are in bold and italics below.]

- **For boilers with a heat rating greater than 2 MM BTU/hr and up to 5 MM BTU/hr**, the Nitrogen Oxides (NOx) emission limits are 30 ppmv. Carbon Monoxide (CO) emission limits are 400 ppmv.
- **For boilers with a heat rating greater than 5 MM BTU/hr and less than 10 MM BTU/hr**, the NOx emission limits are 15 ppmv. CO emission limits are the same, 400 ppmv.
- ***By January 1, 2013***, 33 percent of your boilers (if you have multiple boilers) are required to meet the specified emission limits for NOx and CO. For example, if you have 9 boilers, 3 are required to meet these standards by ***January 1, 2013***.
- ***By January 1, 2014***, 66 percent of your boilers of this size are required to meet the emission limits for NOx and CO, and,



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For boilers with a heat rating greater than 2 MM BTU/hr and less than 10 MM BTU/hr (cont.)

- **By January 1, 2015**, the remainder, or 100 percent, of your boilers are required to meet the emission limits for NOx and CO.
- Most older boilers will not meet the new emission limits, so you can meet this requirement by:
 - Changing out your boiler for a new boiler that is approved by the Air District and certified that it meets the new emission limits, or
 - For some boilers, it may be possible to change-out, or retrofit, the burner with a burner that meets the emission limits, or
 - In some cases, it may be possible to take a boiler out-of-service completely or change it out for a water heater with a heat rating no greater than 2 MM BTU/hr, or
 - If possible, permanently reduce the rated heat input of the boiler to no greater than 2 MM BTU/hr and meet the rule fuel requirements to be exempt.

Your boiler maintenance or repair service representative should also be able to measure the emissions levels to determine if your boiler is in compliance.

For boilers with a heat rating between 10 MM BTU/hr and 20 MM BTU/hr:

[NOTE: The recent amendments have not extended the compliance dates for these boilers.]

- **By January 1, 2012**, the emission limits for NOx – 15 ppmv and CO – 400 ppmv (either with new boiler or retrofit burner, if available) are in effect. The same type of schedule is in effect, with 33% of your boilers due on 1/1/2012, 66% on 1/1/2013, and the remainder 100%, on 1/1/2014. For most boilers greater than 20 MM BTU/hr, the NOx and CO emission limits are also lower (see Regulation 9-7 at www.baaqmd.gov/rules for the emission limits for these larger devices).

For all size boilers:

- For most boilers, if it was manufactured less than 10 years ago, you will have more time to comply.
- The rule also includes requirements for boiler insulation, monitoring and recordkeeping, tune-up and temperature limits. Owners and Operators should familiarize themselves with the requirements of Regulation 9-7 and can access the rule by going to www.baaqmd.gov/rules.
- There are also requirements that manufacturers submit a certification application (one application per unique make/model) to the Air District for approval of devices. If approved by the Air District, only these certified boilers can be sold for use within the District boundaries. The new amendments provided a simplified certification process and additional options for manufacturers to obtain the approved boiler certification, and put-off the date for requiring that only certified devices are sold within the District to **January 1, 2012**. Certification applications are available at: www.baaqmd.gov/boiler-cert

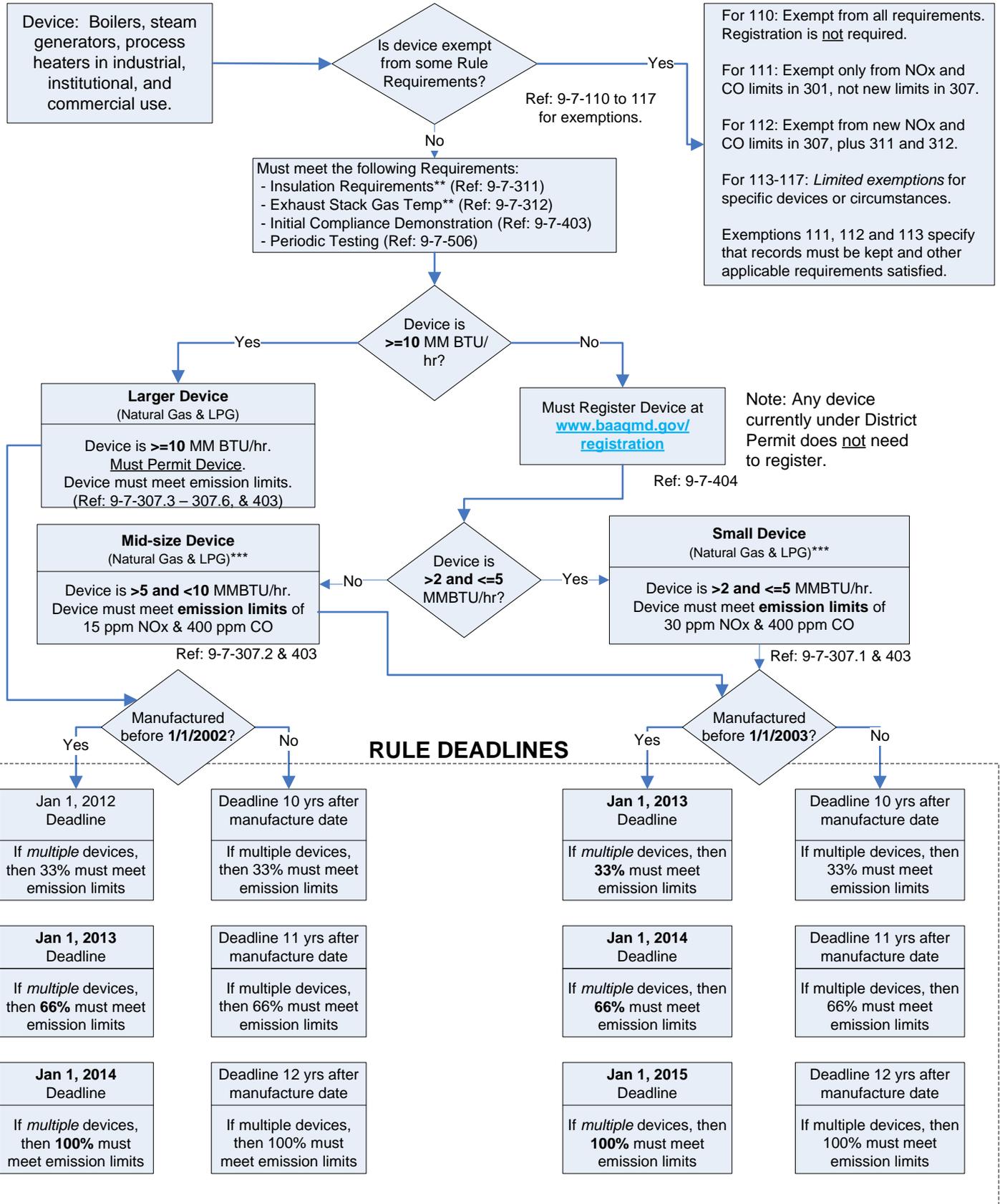


For more information:

- For questions about this Fact Sheet or the Regulation, call the Compliance Counselor Hotline at: (415) 749-4999, or contact Michael Wall at mwall@baaqmd.gov, or (415) 749-4903.
- For questions on the rule amendments, contact Julian Elliot at jelliot@baaqmd.gov or (415) 749-4705.
- For a copy of the rule or any Air District rule see: www.baaqmd.gov/rules.
- For questions about Air District Permits, call the Engineering Division at (415) 749-4990.

Bay Area Air Quality Management District

Regulation 9, Rule 7 – Simplified Rule Flow Chart*



*(revised May 2011) This Compliance Assistance tool is provided to help understand a BAAQMD Regulation, it does not replace requirements in the regulation and nothing in this flowchart should not be interpreted to supersede Regulation 9, Rule 7. Persons subject to the Reg should read and understand the requirements as they pertain to such persons. Compliance Assistance is available from the Air District at (415) 749-4999.

** Applies to Boilers and Steam Generators only.

*** Other fuels are subject to 307.7 & 307.8 and devices require a District Permit to Operate.