



# WORKSHOP NOTICE

March 25, 2008

TO: INTERESTED PARTIES  
FROM: EXECUTIVE OFFICER / APCO  
SUBJECT: **PUBLIC WORKSHOP - DRAFT AMENDMENTS TO REGULATION 9, RULE 7: NO<sub>x</sub> AND CO FROM INDUSTRIAL, INSTITUTIONAL & COMMERCIAL BOILERS, STEAM GENERATORS & PROCESS HEATERS**

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The staff of the Bay Area Air Quality Management District ("Air District") will conduct a public workshop to review and discuss possible amendments to Regulation 9, Rule 7 from **9:00 to 11:00 AM on April 14, 2008** in the 7<sup>th</sup> Floor Board of Directors meeting room at the Air District office at **939 Ellis Street, San Francisco**. Also, associated amendments to Regulation 3: Fees, Schedule R: Equipment Registration Fees and the Manual of Procedures, Volume I: Enforcement Procedures, Chapter 5: Boiler, Steam Generator and Process Heater Tuning Procedure will be discussed.

## **BACKGROUND:**

The Air District is considering amendments to Regulation 9, Rule 7 to further reduce emissions of nitrogen oxides (NO<sub>x</sub>) in the Bay Area. The Bay Area is not yet in attainment of state ozone standards, so the region must implement all feasible measures to reduce the pollutants that form ozone, including NO<sub>x</sub>. In addition, NO<sub>x</sub> emissions react in the atmosphere to form secondary particulate matter (PM). The Bay Area is not in attainment of California ambient air standards for PM<sub>10</sub> (particulate matter of 10 microns or less) or for PM<sub>2.5</sub> (particulate matter of 2.5 microns or less).

The Air District held a public workshop on June 29, 2007, to solicit comments to a draft amendment to Regulation 9, Rule 7, which included the following provisions:

- Establish a NO<sub>x</sub> emission limit of 30 ppmv for previously-unregulated, gas-fired devices rated more than 2 but less than 10 MM BTU/hr, and reduce the current 30 ppmv emission limit for devices rated 10 MM BTU/hr and higher to 15 ppmv for devices rated less than 20 MM BTU/hr and to 9 ppmv for devices rated higher than 20 MM BTU/hr;
- Establish a manufacturer certification requirement for new gas-fired devices rated more than 2 but less than 10 MM BTU/hr, and establish a registration program for operators of new and existing devices in this size range. One-time registration fees are proposed to be \$425 per facility, with an additional \$50 for each device after the first device. Fees are found in Regulation 3, Schedule R;
- Establish periodic monitoring requirements for devices rated 10 MM BTU/hr or more.

## **REVISIONS TO PROPOSED AMENDMENTS:**

After the public workshop, several parties submitted comments to the Air District, and the Air District is considering reductions to the previously-proposed NO<sub>x</sub> limits. A revised draft has been prepared that addresses these comments and includes these lower limits. The revised draft includes the following provisions:

### **1) Heaters rated <10 MM BTU/hr:**

- The Air District has moved the proposed effective date for the standards affecting heaters rated less than 10 MM BTU/hr from 1/1/2010 to 1/1/2011, although a heater manufactured prior to 1/1/2011 would not be subject to the proposed NO<sub>x</sub> standards until 10 years after its original manufacture date. Heaters manufactured on or after 1/1/2011 would be subject to the proposed standards on 1/1/2011.
- The latest version of the proposed rule contains a new NO<sub>x</sub> standard of 15 ppmv for heaters rated greater than 5 but less than 10 MM BTU/hr. The proposed NO<sub>x</sub> standard of 30 ppmv for devices up to 5 MM BTU/hr remains unchanged from the draft rule presented at the June 29, 2007, public workshop.
- The manufacturer certification and operator registration provisions of the original draft have been retained.

### **2) Heaters rated 10 to <20 MM BTU/hr:**

- The Air District has moved the proposed effective date for the standards affecting heaters rated from 10 MM BTU/hr up to 20 MM BTU/hr from 1/1/2012 to 1/1/2011, although a heater manufactured prior to 1/1/2011 would not be subject to the proposed NO<sub>x</sub> standard until 5 years after its original manufacture date. Heaters manufactured on or after 1/1/2011 would be subject to the proposed standards on 1/1/2011.
- The proposed NO<sub>x</sub> standard of 15 ppmv for devices rated from 10 MM BTU/hr up to 20 MM BTU/hr remains unchanged from the draft rule presented at the June 29, 2007, public workshop.
- An initial source test and periodic compliance monitoring will be required.

### **3) Heaters rated 20 MM BTU/hr and higher:**

- The Air District has moved the proposed effective date for the standards affecting heaters rated 20 MM BTU/hr or higher from 1/1/2014 to 1/1/2011, although a heater manufactured prior to 1/1/2011 would not be subject to the proposed NO<sub>x</sub> standards until 5 years after its original manufacture date. Heaters manufactured on or after 1/1/2011 would be subject to the proposed standards on 1/1/2011.
- The latest version of the proposed rule contains a new NO<sub>x</sub> standard of 5 ppmv for heaters rated 75 MM BTU/hr and higher. The proposed NO<sub>x</sub> standard of 9 ppmv for devices from 20 MM BTU/hr up to 75 MM BTU/hr remains unchanged from the draft rule presented at the June 29, 2007, public workshop.
- An initial source test and periodic compliance monitoring will be required.

#### 4) Exemptions from New NOx Limits:

- Heaters that operate at less than 10% capacity will not be subject to the proposed NOx standards until they exceed 10% capacity.
- Heaters will be exempt from the proposed NOx standards during startups, shutdowns and tune-ups.

#### 5) New Proposed Requirements

- Effective 1/1/2009, heaters will be required to undergo annual inspections and tune-ups and will be required to be insulated so that exposed heater surfaces and exposed pipes and ducts do not exceed 120°F. This insulation requirement is intended to minimize unnecessary heat loss and fuel use. By minimizing heat loss and fuel use, operators save on the costs of fuel while reducing emissions of NOx and CO<sub>2</sub>. CO<sub>2</sub> is a contributor to global warming. Inspection and tune-up procedures are found in the Manual of Procedures, Volume I, Chapter 5.
- Effective 1/1/2011, limits on stack gas temperature will go into effect in order to ensure that heaters have a reasonable level of heat transfer which will also minimize unnecessary heat loss, fuel use and associated emissions. Boiler operators can reduce stack gas temperatures by cleaning heat transfer surfaces or, in some cases, by optimizing combustion, or by installing an economizer to recover heat from exhaust gases.

#### COMMENTS AND FURTHER INFORMATION:

The draft amendments and the workshop report are available at: [www.baaqmd.gov/pln/ruledev/workshops.htm](http://www.baaqmd.gov/pln/ruledev/workshops.htm). For additional information or to submit comments, please contact Julian Elliot, Senior Air Quality Engineer, at (415) 749-4705 or via e-mail at [jelliot@baaqmd.gov](mailto:jelliot@baaqmd.gov). **Written comments, submitted by U.S. mail or electronic mail, are requested by the close of business on Monday, April 21, 2008.**

#### PUBLIC TRANSPORTATION

**MUNI -- #47 AND 49 NORTH AND SOUTH ON VAN NESS AVENUE  
#38 EAST AND WEST ON GEARY BOULEVARD/O'FARRELL STREET  
BART -- CIVIC CENTER STATION 8<sup>TH</sup> AND MARKET STREETS**

Attendees are encouraged to ride public transit, rideshare, bicycle or walk to and from the workshop.