

AIR POLLUTION CONTROL DISTRICT
REGULATORY COMPLIANCE DIVISION

POLICIES AND PROCEDURES

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Topic: Boilers

Distribution: All Policy Holders

This policy and procedures document provides guidance on the inspection of boilers.

Boilers include steam generators, steam superheaters, water boilers, water heaters and process heaters. They provide thermal energy in the form of heat, hot water, heat transfer fluid or steam. Fired by gaseous fuel and/or fuel oil, boilers are external combustion equipment. District Rule 202.D.2 exempts from permit boilers under 10 MMBtu/hr (higher heating value) heat input which are fired with natural gas and/or LPG.

Emission controls for boilers include low NO_x burners, flue gas recirculation, oxygen trim systems, use of pipeline quality natural gas as a fuel and proper burner management.

The inspection of boilers depends on the specific permit conditions for the source. The inspector should, in conjunction with the project manager or appropriate engineer, thoroughly review the permit and prepare a source specific checklist.

The following items may be limited by permit conditions and require inspection:

1. Number of boilers operating simultaneously
2. Number of boilers operating simultaneously with other equipment (e.g., turbines)
3. Fuel type (pipeline quality gas, facility-produced gas, fuel oil)
4. Steam production rate (lb/hr)
5. Fuel use (scf/hr or gal/hr)
6. Heat input (Btu/hr)
7. Low NO_x burners
8. Proper burner management
9. Visible emissions

10. Operational limits: Items #1-6 (above) may all be subject to permit limitations. Additionally, the number of operating hours may be limited (per day, week, month or year). The individual conducting the inspection should ascertain that the permit limitations have not been exceeded.

At some facilities, the steam production and fuel use rates may be continuously recorded. The inspector should be aware of all on-site and off-site recording devices and should obtain the necessary data from the recording devices (i.e., computer printouts, strip charts, circular charts).

An inspection report will be prepared after the inspection has been conducted. The report should include an explanation of the reason for the inspection, the results of the inspection and recommendations. If violations of permit conditions or District rules are detected, Policy and Procedure VII.A, "Enforcement Actions, The Notice of Violation", will be prepared.