



BUILDINGS 2022-006 BULLETIN TECHNICAL

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PURPOSE: Clarification of the scope of the periodic boiler inspection.

SUBJECT(S): Boiler, equipment, annual periodic inspection, boiler control, and safety devices, qualified boiler inspector

RELATED LAW

Administrative Code (AC) 28-303; Mechanical Code (MC) 202, MC 10; Fuel Gas Code (FGC) 202, FGC 631; Title 1 of the Rules of the City of New York (RCNY) 103-01; 1 RCNY 103-05.

I. Background

A boiler is used for supplying steam or hot water. Depending on the operating pressure, it can be classified as a high-pressure or low-pressure boiler. The key components of a boiler include the burner, combustion chamber, heat exchanger, flue system, combustion air system, and boiler controls.

Deficiencies in boiler controls and overheated boiler system components can result in damage to boilers and their surroundings, as well as cause injuries to the public. Therefore, boilers and their key components shall be inspected to ensure safe operations. Such "Periodic Boiler Inspections" shall be performed annually in accordance with Article 303 of the New York city construction codes. Pursuant to 1 RCNY §103-01 (Low Pressure Boilers) and 1 RCNY §103-05 (High Pressure Boilers), any owner in control of the premises and/or boiler is required to submit annual inspection reports for low-pressure and high-pressure boilers.

The purpose of this Bulletin is to clarify the inspection requirements for the boiler control and safety devices during a Periodic Boiler Inspection and to clarify the key responsibilities of the owner and qualified boiler inspector in the context of such inspection.

II. Clarification of the Scope of Inspection Required During a Periodic Boiler Inspection

To determine whether a boiler is in a safe operating condition, boiler system components, which include the boiler control and safety devices, must be inspected and tested. Per AC § 28-303.8, all parts of the boiler 'equipment' shall be inspected during Periodic Boiler Inspections.

AC §28-303.8 states:

Scope of inspection. During required inspection and testing, in addition to any other requirements prescribed by this code or the rules of the department, all parts of the equipment shall be inspected to determine that they are in safe operating condition and that parts subject to wear have not worn to such an extent as to affect the safe and reliable operation of the boiler.

Per the MC and the FGC, boiler controls are part of the boiler equipment.

MC 202 defines EQUIPMENT as:

All piping, ducts, vents, control devices and other components of systems other than appliances which are permanently installed and integrated to provide control of environmental conditions for buildings. This definition shall also include other systems specifically regulated in this code.

FGC 202 defines EQUIPMENT as:

Any apparatus or device that delivers gas as a fuel or raw material to an appliance or vents combustion products from an appliance, including but not limited to control devices, pressure regulators, valves, appliance appurtenances, gas connectors, or power exhausters used in connections to appliances.

The MC 202 definition of 'equipment' includes "control devices and ... other systems specifically regulated in this code." The FGC, which also specifically regulates boiler systems, includes "control devices" in the FGC 202 definition of 'equipment.' Therefore, the AC § 28-303.8 phrase "all parts of the equipment" means all components of a boiler system including the boiler control and safety devices, regardless of whether such boiler system is high-pressure or low-pressure. Accordingly, the boiler control and safety devices must be inspected during the Periodic Boiler Inspection, because they are parts of the boiler 'equipment.'

To comply with AC §28-303.8, the qualified boiler inspector per 1 RCNY § 101-07 (the 'Qualified Boiler Inspector'), must verify that a testing of all control and safety devices is performed during the Periodic Boiler Inspection and indicate in the relevant testing documentation whether each of these devices is in a safe operating condition.

III. Responsibilities of the parties.

A. Responsibility of the Qualified Boiler Inspector

As part of the Periodic Boiler Inspection, a Qualified Boiler Inspector is responsible for verifying the test results, or collecting documentation of the test results, for the boiler control and safety devices. Such test results must indicate (1) that the control and safety devices were inspected in the course of the Periodic Boiler Inspection in accordance with the boiler and/or the control and safety device manufacturer's instructions/manuals and (2) whether such 'equipment' is all in good operating condition.

At the option of the Qualified Boiler Inspector, testing of the control and safety devices may be performed by others who are trained and skilled to perform such testing.

B. Responsibility of the Owner

The owner must file the boiler annual inspection reports and comply with these control device inspection requirements pursuant to AC §28-303, and in accordance with 1 RCNY §103-01 and 1 RCNY §103-05. In accordance with AC §§ 28-303.2.1 and 28-303.2.2, internal inspection and external inspection are required for both high-pressure and low-pressure devices. However, the low-pressure devices require internal inspection only if such device have adequate access.

Also, the owner is responsible for ensuring that the scope of these boiler control device inspections and tests is fulfilled by the corresponding boiler inspector and that such devices are inspected to ensure proper and safe operation in accordance with the various manufacturers' instructions and manuals.

The owner must document the findings of such inspections, which include the testing results for the control and safety devices, in a manner equivalent to the inspection log forms included in Mandatory Appendix I of Section VI of the ASME Boiler and Pressure Vessel Code. 2010 Version Exhibit A or B for low pressure boilers and Article A-101 for high pressure boilers). The owner must enclose the most recent testing results of such inspection log forms within a water and damage resistant covering and post same in a conspicuous area within each boiler room/the area of each boiler.