



Lockout Procedure - Boiler & Primary Pump

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A. General

This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever servicing or maintenance is done on boilers.

It shall be used for the following reasons:

- (1) To ensure that the boiler is stopped and isolated from the power source that enables it to operate.
- (2) To assure a safe condition before employees perform servicing or maintenance on the equipment.

B. Compliance with This Program

All authorized employees are required to comply with the restrictions and limitations imposed during the use of lockout.

Authorized employees in this case are the HVAC technicians with authority to lockout boilers and perform servicing/maintenance. All employees upon observing that breakers are locked out shall not attempt to remove locks/lockout devices or turn on breakers.

C. Procedural Sequence – Authorized Employee

- (1) Notify the following that the boiler requires servicing/maintenance and will be shut down and locked out.
 - Building liaison/responsible person
 - Those working in the area of the boiler
 - HVAC shop supervisor
 - Facilities Controls Shop
 - Facilities Help Desk
- (2) Identify the location, type and magnitude of the power source; understand the hazards associated with its use and the methods to control it.

The power source for boilers on campus is:

- Natural Gas (at boiler)

- Electrical (single phase or three phase motor, 120 – 480 voltage based on type of unit)
- (3) Locate the on/off switch (may be a toggle switch) on the boiler and turn to the “off” position.
 - (4) Locate the breaker that provides power to the boiler primary pump (if so equipped).
 - (5) Move the disconnect to the “off” position and apply lock, tag and lockout device (if more than one person will be working on the boiler).

Where electrical panels are located in separate rooms, identify the electrical breaker that supplies power to control panel on the boiler. Turn breaker to the “off” position and apply lock, tag and lockout device (if more than one person will be working on the boiler)

- (6) Turn valve for the boiler gas line to the “off” position.
- (7) Verify there is no power by testing the main power source on the terminal block (located on the control panel) with a volt meter.
- (8) If the result is zero, then equipment is considered locked out and safe to work on. Complete servicing and maintenance as needed.

D. Restoring Equipment to Service – Authorized Employee

After completing the necessary servicing/maintenance and the boiler is to be returned to the normal operational condition, the authorized employee who originally applied the locks, tags and lockout devices will:

- (1) Check the area around the boiler and in/around cabinets to ensure that nonessential items have been removed and that the boiler is operationally intact.
- (2) Check that all employees have been safely positioned or removed from the area.
- (3) Verify that the on/off switch on the side of the boiler is in the “off” position.
- (4) In the room where electrical panels are located, go to the electrical panel providing power to the boiler. Remove the lock, tag and lockout device from the breaker for the boiler control panel and turn breaker to the “on” position.

Remove the lock, tag and lockout device from the breaker for the boiler pump (if so equipped) and move the breaker disconnect to the “on” position.

- (5) Turn gas valve at the boiler to the “on” position.
- (6) Go to the on/off switch on the side of the boiler and turn switch to the “on” position.

- (7) Verify that power has been restored by testing the main power source on the terminal block (located on the control panel) with a volt meter. The voltage should be displayed on the meter.
- (8) If there are no issues detected during the startup phase, the boiler is now considered operational.
- (9) Notify the individuals listed in section C1 that the service/maintenance has been completed and the equipment is in an operational condition.

Prepared by RMS & Facilities Maintenance