

CONTROLS

RESETS

SHUTDOWNS

CHECKS

INSPECTION

Guidelines for operating hot water heat, low pressure steam boilers and storage water heaters:

- Controls – location, types, what they do
- Resets – where to find them, what to look for, checks before restarting the boiler
- Shutdowns – lockouts to reset, checks to make before restarting the boiler
- Daily and monthly checks
- Annual inspection
- Preparation for internal inspection – low pressure steam – fire tube

VIEW THE FULL PRESENTATION AT

<https://www.deq.nd.gov/Director/BIP/>

WHO WE ARE

The Boiler Inspection Program, under the Office of the Director of the North Dakota Department of Environmental Quality, provides initial and periodic inspections of boilers of all sizes, types and pressures. Originating in 1953, the program is responsible for the inspection and safe repair of boilers installed in public and commercial locations. Technical advice and engineering assistance is provided to installers, repair firms, operators and owner/users.

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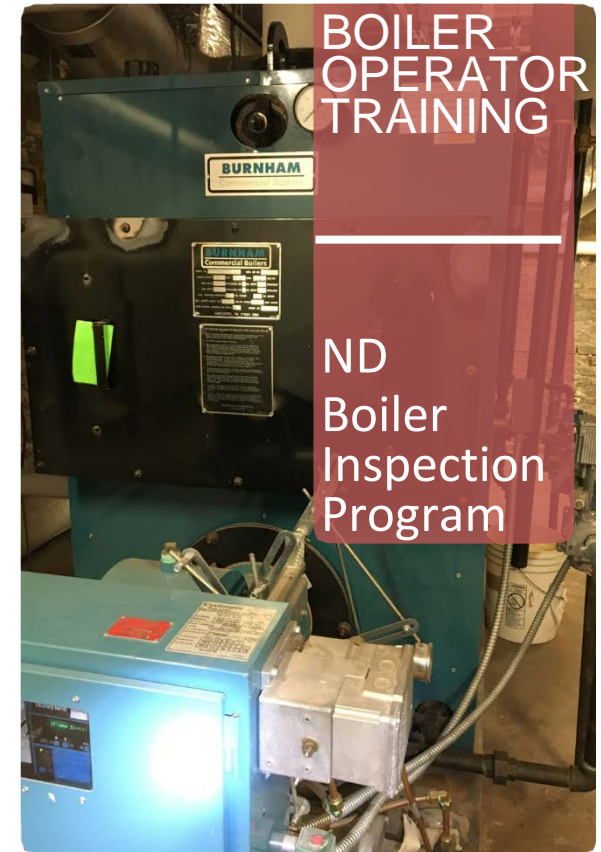
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BOILER
OPERATOR
TRAINING

ND
Boiler
Inspection
Program

HOT WATER HEAT

LOW PRESSURE STEAM

STORAGE WATER HEATER

NORTH
Dakota | Environmental
Be Legendary.™ Quality



CONTROLS AND SAFETY DEVICES FOR HOT WATER HEAT

- Pressure/temperature gauge
- Operating control
- High limit control (may be manual reset)
- Low water cutoff
- Flow switch
- Safety relief valve
- Expansion tank
- Feed water
- Drains for high efficiency boilers – stack drain and condensate drains
- Electrical switch
- Emergency shutdown switch

CHECKS FOR LOW PRESSURE STEAM

Daily:

- Monitor pressure of the boiler three to four times, logging observed operating parameters.
- Flush the low water cutoff float bowls.

Weekly:

- Test the low water cutoffs for a burner shut down.
- Blowdown all boiler blowdown valves for the mud legs and boiler bottoms.

Monthly:

- Test the safety relief valve.

Annually:

- Test the operating pressure control and high limit/manual reset high limit pressure control.
- Clean the float bowls of low water fuel cutoffs.



STORAGE WATER HEATER CHECKS/MAINTENANCE

Daily:

- Check temperature on digital control or thermometer.

Monthly:

- Check the T & P safety relief valve by lifting the test lever and allowing it to spring back closed.

Annually:

- Test the operating control by adjusting the temperature up for the burner to fire and shut down at the new higher set point, reset the operating temperature to the original set point when test completed.
- Clean the sediment from the storage water heater tank.