



# **BOILER INSPECTION**

This checklist is part of the ongoing requirements to maintain boilers and HVAC units. Also, there are maintenance steps required by the manufacturer, the boiler inspector, and the State of Oregon Boilers and Pressure Vessel Code Program - Building Codes Division: Boilers and Pressure Vessel Code Program: Codes and Standards: State of Oregon.

## **BOILERS**

#### **Annual Maintenance**

- · Inspect and test all system valves.
- · Inspect and test all safety valves.
- · Clean and rebuild low water cut-off.
- · Recalibrate all operating controls.
- · Inspect electrical terminals.
- · Clean and Inspect chimneys.
- · Clean and tune boiler and components.

# Periodic Maintenance - by building custodial staff

- · Keep sight glasses clean.
- · Keep air filter clean.
- Flush drain low water cut-off while burner is on and flame is present in the boiler's combustion chamber.
- Flush down water-line heater, shut off lower isolation valve, open drain valve to flush unit, shut drain off valve, and reopen isolation valve.
- · Conduct boiler bottom blowdown (mud legs) monthly or as needed.
- · Monitor the make-up water being added and/or the boiler feed unit.
- · Maintain a rigorous boiler chemical feedwater treatment program.
- · Maintain a boiler log to record problems and routine maintenance.
- · Check combustion, inspect burner controls, and inspect burner operation.
- Conduct pipe inspection program to ensure all pipes are pitched in the direction of steam source (one-pipe steam system) or condensate drainage (two-pipe systems).







#### **Outdoor Units**

- Inspect unit for proper refrigerant level and adjust if necessary.
- · Clean dirt, leaves, and debris from inside cabinet.
- Inspect base pan for restricted drain openings remove obstructions.
- · Inspect coil and cabinet clean as needed.
- Inspect fan motor and fan blades for wear and damage on older models lubricate as needed.
- Inspect control box, associated controls, wiring and connections.
- · Inspect compressor and associated tubing for damage.

#### **Indoor Units**

- · Inspect and clean blower assembly.
- · Older models may need lubrication.
- Check combustion blower housing for lint and debris and clean as needed.
- Inspect evaporator coil, drain pan and condensate drain lines. Clean as needed.
- · Inspect for gas leaks in gas furnace.
- · Inspect burner assembly clean and adjust as needed.
- Inspect ignition system and safety controls clean and adjust as needed.
- · Inspect heat exchanger or heating element.
- Inspect control box, associated controls, wiring, and connections.
- · Clean or replace air filters
- Inspect conditioned airflow system (ductwork) check for leaks.

### While Your System is Operating

- · Listen for abnormal noises.
- · Search for source of unusual odors.
- · Monitor air conditioning and heat pump systems for correct refrigerant charge.
- · Measure outdoor dry bulb temperature.
- · Monitor gas furnace for correct line and manifold gas pressure make adjustments as needed.
- · Measure temperatures and adjust airflow as needed.
- Monitor system for correct line and load volts/amps.
- · Monitor system operation per manufacturer's specifications.
- · Provide system operation report and recommend repairs or replacement as necessary.

If you have any questions or concerns, please contact the Risk Management Department at 800-285-5461 or <a href="mailto:riskmanagement@sdao.com">riskmanagement@sdao.com</a>.