



Operating boilers safely



PUBLICATION
F600-025-000 [07-2006]

Required inspections could save you trouble, money and maybe even lives

Here's what you need to know to keep your boilers and pressure vessels operating safely.



Inspection = public safety

The safe design, installation, operation and maintenance of boilers and unfired pressure vessels are essential to public safety. Leaking, corroded or ruptured units can cause:

- Explosions
- Poisonings
- Fires
- Suffocations

Periodic inspections by the Department of Labor and Industries (L&I) are required by law and are the surest way to avoid problems. Boiler or vessel owners must pay inspection fees used to fund this public-safety program.

Inspection = economic benefits

- Skilled inspectors use state-of-the-art technology, such as ultrasound, thermo sensors and carbon monoxide detectors, to identify maintenance needs and potential problems before they become major repair or replacement costs.
- An efficiently operating boiler saves money on energy costs.



Inspection fees

Fees vary, depending on the type and size of unit. Inspection fees range from about \$6 to \$62. Other certificate and permit fees may also apply. Ask your L&I boiler inspector for the current fee schedule, or visit www.LNI.wa.gov/TradesLicensing/Boilers/InsFees, or call the L&I Boiler Program at 360-902-5271.

Inspection requirements

Most boilers and pressure vessels in commercial facilities must be inspected, including:

- **All boilers**
 - High-pressure steam operating at a pressure exceeding 15 PSI
 - Low-pressure steam operating at a pressure 15 PSI or below
 - Hot-water-heating boilers and hot-water-supply boilers (with burner input exceeding 200,000 BTU/hr.)

- **All unfired pressure vessels of five cubic feet (37.5 gallons) or larger and operating at a pressure of 15 PSI, including:**
 - Air receivers
 - Expansion tanks
 - Air separators
 - Refrigeration vessels
 - Heat exchangers
 - Other types of storage and pressurized tanks

(Exception: vessels in a place of public assembly must be inspected if they are 1.5 cubic feet or larger.)

- **Domestic hot-water heaters when located in a place of public assembly, with:**

- Maximum heat input of 200,000 BTU
- Water capacity of 11.25 to 120 gallons
- Maximum operating pressure of 160 PSI

(Places of public assembly are defined as facilities used for 50 or more people for education, instruction, worship, entertainment, amusement, drinking, dining or awaiting transportation. They also include child-care centers with 13 or more children, government-owned or operated buildings, public or private hospitals, and adult care, nursing and boarding homes.)

Inspection frequency

- Steam boilers operating over 15 PSI must be inspected annually.
- All other low-pressure boilers and pressure vessels must be inspected every two years.

Inspection requirements

Owners or installers must obtain boiler/pressure vessel installation or re-installation permits prior to installation and placing units in service. Permit forms are available online at www.LNI.wa.gov/TradesLicensing/Boilers/.



L&I Boiler Program

Performs safety inspections and issues operating permits for more than 100,000 boilers and unfired pressure vessels throughout the state.

Administers National Board and state examinations.

Investigates accidents involving boilers or pressure vessels.

Inspects, audits and reviews boiler and vessel manufacturers for conformance with national construction standards.

More information

www.LNI.wa.gov/TradesLicensing/Boilers/

L&I Boiler Program: 360-902-5271

This document is available in other formats to accommodate persons with disabilities. For assistance, call 1-800-547-8367. (TDD users, please call 360-902-5797.) Labor and Industries is an Equal Opportunity Employer.

PUBLICATION F600-025-000 [07-2006]