

AMENDATORY SECTION (Amending WSR 08-12-015, filed 5/27/08, effective 6/30/08)

WAC 296-104-010 Administration--What are the definitions of terms used in this chapter? "Agriculture purposes" shall mean any act performed on a farm in production of crops or livestock, and shall include the storage of such crops and livestock in their natural state, but shall not be construed to include the processing or sale of crops or livestock.

"Attendant" shall mean the person in charge of the operation of a boiler or unfired pressure vessel.

"Automatic operation of a boiler" shall mean automatic unattended control of feed water and fuel in order to maintain the pressure and temperature within the limits set. Controls must be such that the operation follows the demand without interruption. Manual restart may be required when the burner is off because of low water, flame failure, power failure, high temperatures or pressures.

"Board of boiler rules" or "board" shall mean the board created by law and empowered under RCW 70.79.010.

"Boiler and unfired pressure vessel installation/reinstallation permit," shall mean a permit approved by the chief inspector before starting installation or reinstallation of any boiler and unfired pressure vessel within the jurisdiction of Washington.

Owner/user inspection agency's, and Washington specials are exempt from "boiler and unfired pressure vessel installation/reinstallation permit."

"Boilers and/or unfired pressure vessels" - below are definitions for types of boilers and unfired pressure vessels used in these regulations:

- **"Condemned boiler or unfired pressure vessel"** shall mean a boiler or unfired pressure vessel that has been inspected and declared unsafe or disqualified for further use by legal requirements and appropriately marked by an inspector.
- **"Expansion tank"** shall mean a tank used to absorb excess water pressure. Expansion tanks installed in closed water heating systems and hot water supply systems shall meet the requirements of ASME Section IV, HG-709.
- **"Hot water heater"** shall mean a closed vessel designed to supply hot water for external use to the system. All vessels must be listed by a nationally recognized testing agency and shall be protected with an approved temperature and pressure safety relief valve and shall not exceed any of the following limits:
 - * Pressure of 160 psi (1100 kpa);

- * Temperature of 210 degrees F (99°C) ((7)).
Additional requirements:
- * ((Capacity of)) Hot water heaters exceeding 120 ((U.S.)) gallons (454 liters) must be ASME code stamped;
((± Input of 200,000 BTU/hr (58.58 kw). Note that if input exceeds 200,000 BTU/hr (58.58 kw), other terms defined in this section may apply.))
- * Hot water heaters exceeding 200,000 BTU/hr (58.58 kw) input must be ASME code stamped.
- **"Low pressure ((heating)) boiler"** shall mean a steam ((or vapor)) boiler operating at a pressure not exceeding 15 psig or a boiler in which water ((or other fluid)) is heated and intended for operation at pressures not exceeding 160 psig or temperatures not exceeding 250 degrees F by the direct application of energy from the combustion of fuels or from electricity, solar or nuclear energy((, excluding lined hot water heaters supplying potable hot water for external use to the system)). Low pressure boilers open to atmosphere and vacuum boilers are excluded.
- **"Nonstandard boiler or unfired pressure vessel"** shall mean a boiler or unfired pressure vessel that does not bear marking of the codes adopted in WAC 296-104-200.
- **"Power boiler"** shall mean a boiler in which steam or other vapor is generated at a pressure of more than 15 psig for use external to itself or a boiler in which water is heated and intended for operation at pressures in excess of 160 psig and/or temperatures in excess of 250 degrees F by the direct application of energy from the combustion of fuels or from electricity, solar or nuclear energy.
- **"Reinstalled boiler or unfired pressure vessel"** shall mean a boiler or unfired pressure vessel removed from its original setting and reset at the same location or at a new location without change of ownership.
- **"Rental boiler"** shall mean any power or low pressure heating boiler that is under a rental contract between owner and user.
- **"Second hand boiler or unfired pressure vessel"** shall mean a boiler or unfired pressure vessel of which both the location and ownership have changed after primary use.
- **"Standard boiler or unfired pressure vessel"** shall mean a boiler or unfired pressure vessel which bears the marking of the codes adopted in WAC 296-104-200.
- **"Unfired pressure vessel"** shall mean a closed vessel under pressure excluding:
 - * Fired process tubular heaters;
 - * Pressure containers which are integral parts of components of rotating or reciprocating mechanical devices where the primary design considerations and/or stresses are derived from the functional requirements of

- the device;
- * Piping whose primary function is to transport fluids from one location to another;
 - * Those vessels defined as low pressure heating boilers or power boilers.
 - **"Unfired steam boiler"** shall mean a pressure vessel in which steam is generated by an indirect application of heat. It shall not include pressure vessels known as evaporators, heat exchangers, or vessels in which steam is generated by the use of heat resulting from the operation of a processing system containing a number of pressure vessels, such as used in the manufacture of chemical and petroleum products, which will be classed as unfired pressure vessels.

"Certificate of competency" shall mean a certificate issued by the Washington state board of boiler rules to a person who has passed the tests as set forth in WAC 296-104-050.

"Certificate of inspection" shall mean a certificate issued by the chief boiler inspector to the owner/user of a boiler or unfired pressure vessel upon inspection by an inspector. The boiler or unfired pressure vessel must comply with rules, regulations, and appropriate fee payment shall be made directly to the chief boiler inspector.

"Code, API-510" shall mean the Pressure Vessel Inspection Code of the American Petroleum Institute with addenda and revisions, thereto made and approved by the institute which have been adopted by the board of boiler rules in accordance with the provisions of RCW 70.79.030.

"Code, ASME" shall mean the boiler and pressure vessel code of the American Society of Mechanical Engineers with addenda thereto made and approved by the council of the society which have been adopted by the board of boiler rules in accordance with the provisions of RCW 70.79.030.

"Code, NBIC" shall mean the National Board Inspection Code of the National Board of Boiler and Pressure Vessel Inspectors with addenda and revisions, thereto made and approved by the National Board of Boiler and Pressure Vessel Inspectors and adopted by the board of boiler rules in accordance with the provisions of RCW 70.79.030.

"Commission" shall mean an annual commission card issued to a person in the employ of Washington state, an insurance company or a company owner/user inspection agency holding a Washington state certificate of competency which authorizes them to perform inspections of boilers and/or unfired pressure vessels.

"Department" as used herein shall mean the department of labor and industries of the state of Washington.

"Director" shall mean the director of the department of labor and industries.

"Domestic and/or residential purposes" shall mean serving a private residence or an apartment house of less than six families.

"Existing installations" shall mean any boiler or unfired pressure vessel constructed, installed, placed in operation, or

contracted for before January 1, 1952.

"Inspection certificate" see "certificate of inspection."

"Inspection, external" shall mean an inspection made while a boiler or unfired pressure vessel is in operation and includes the inspection and demonstration of controls and safety devices required by these rules.

"Inspection, internal" shall mean an inspection made when a boiler or unfired pressure vessel is shut down and handholes, manholes, or other inspection openings are open or removed for examination of the interior. An external ultrasonic examination of unfired pressure vessels less than 36" inside diameter shall constitute an internal inspection.

"Inspector" shall mean the chief boiler inspector, a deputy inspector, or a special inspector.

- **"Chief inspector"** shall mean the inspector appointed under RCW 70.79.100 who serves as the secretary to the board without a vote.
- **"Deputy inspector"** shall mean an inspector appointed under RCW 70.79.120.
- **"Special inspector"** shall mean an inspector holding a Washington commission identified under RCW 70.79.130.

"Nationwide engineering standard" shall mean a nationally accepted design method, formulae and practice acceptable to the board.

"Operating permit" see "certificate of inspection."

"Owner" or **"user"** shall mean a person, firm, or corporation owning or operating any boiler or unfired pressure vessel within the state.

"Owner/user inspection agency" shall mean an owner or user of boilers and/or pressure vessels that maintains an established inspection department, whose organization and inspection procedures meet the requirements of a nationally recognized standard acceptable to the department.

"Place of public assembly" or **"assembly hall"** shall mean a building or portion of a building used for the gathering together of 50 or more persons for such purposes as deliberation, education, instruction, worship, entertainment, amusement, drinking, or dining or waiting transportation. This shall also include child care centers (those agencies which operate for the care of thirteen or more children), public and private hospitals, nursing and boarding homes.

"Special design" shall mean a design using nationwide engineering standards other than the codes adopted in WAC 296-104-200 or other than allowed in WAC 296-104-230.

WAC 296-104-100 Inspection--How often must boilers and unfired pressure vessels be inspected? In accordance with RCW 70.79.080, 70.79.090, and 70.79.240 the following inspection requirements shall apply:

(1) **Power boilers** shall be inspected:

(a) Externally while under pressure - Annually.

(b) Internally and externally while not under pressure - Annually, except as noted in the following paragraph.

A power boiler in a national board accredited owner-user inspection program may have the internal inspection intervals extended by the owner-user inspection organization to five years maximum under the following conditions:

(i) The boiler water treatment and specific chemical limits are prescribed and monitored by an individual or company that specializes in the water treatment field;

(ii) Nondestructive examination (NDE) is performed along with the internal inspections;

(iii) The boiler is monitored within a manned operating facility;

(iv) Inspection, maintenance, and water treatment records are maintained;

(v) There is sufficient inspection history for the boiler or a boiler in similar service to justify the increase in the inspection interval; and

(vi) This provision shall not apply to a black liquor recovery boiler or any boiler with an unsuitable corrosion rate, remaining life, and/or repair history.

(2) **Organic vapor boilers** shall be inspected:

(a) Externally while under pressure - Annually.

(b) Internally and externally while not under pressure - Biennially.

(3) **Low pressure ((heating)) boilers** shall be inspected:

(a) Externally while in operation and under pressure - Biennially.

(b) Internally while not under pressure (except where construction does not permit((s, internally while not under pressure. Also, as a minimum, an internal of their low water fuel cutoff(s) must be completed, where construction permits -- Biennially)) an internal) - every fourth year.

(c) Internally, all steam heating boilers will have as a minimum, an internal of their low water fuel cut off - Biennially.

(d) Internally, none required for nonvapor boilers using glycol, or adequately treated with corrosion inhibitor.

(4) **Hot water heaters** shall be inspected:

(a) Externally - Biennially.

(b) Internally - None required.

(5) **Unfired pressure vessels** shall be inspected:

(a) Externally - Biennially.

(b) Internally:

(i) When subject to corrosion and construction permits - Biennially. Vessels in an owner-user inspection program may follow intervals established by the NBIC or API-510 ninth edition with addenda.

(ii) Pulp or paper dryer rolls may be inspected on a five-year basis in accordance with TAPPI TIP 0402-16 2001 edition, provided the owner has established a written inspection program accepted by the inspector that meets the minimum requirements of TAPPI TIP 0402-16 2001 edition.

(iii) Vessels not subject to corrosion do not require an internal.

AMENDATORY SECTION (Amending WSR 06-24-042, filed 11/30/06, effective 1/1/07)

WAC 296-104-170 Inspection--When are shop inspections required? Shop inspections shall be as required in the standards of construction as adopted in WAC 296-104-200. Only inspectors and supervisors of inspectors holding a national board commission with the appropriate endorsements shall make shop inspections in this state.

Upon request from a boiler or pressure vessel manufacturer holding an ASME Certificate of Authorization within the jurisdiction, the department (~~shall~~) may provide inspection services as required by the ASME Code. The manufacturer receiving such inspection services shall reimburse the department for the time and expenses in accordance with the fee schedule established in WAC 296-104-700.

AMENDATORY SECTION (Amending WSR 08-12-015, filed 5/27/08, effective 6/30/08)

WAC 296-104-700 What are the inspection fees--Examination fees--Certificate fees--Expenses? The following fees shall be paid by, or on behalf of, the owner or user upon the completion of the inspection. The inspection fees apply to inspections made by inspectors employed by the state.

Boiler and pressure vessel installation/reinstallation permit (excludes inspection and certificate of inspection fee): \$50.00.

Certificate of inspection fees: For objects inspected, the certificate of inspection fee per object is \$20.70.

Hot water heaters per RCW 70.79.090, inspection fee: \$6.50.

Heating boilers:

Internal External

Cast iron--All sizes	\$34.80	\$27.80
All other boilers less than 500 sq. ft.		\$27.80
500 sq. ft. to 2500 sq. ft.	\$69.40	\$34.80
Each additional 2500 sq. ft. of total heating surface, or any portion thereof	\$27.80	\$13.70
Power boilers:	Internal	External
Less than 100 sq. ft.	\$34.80	\$27.80
100 sq. ft. to less than 500 sq. ft.	\$42.10	\$27.80
500 sq. ft. to 2500 sq. ft.	\$69.40	\$34.80
Each additional 2500 sq. ft. of total heating surface, or any portion thereof	\$27.80	\$13.70
Pressure vessels:		
((Automatic utility hot water supply heaters per RCW 70.79.090		\$6.50
All other pressure vessels:))		
Square feet shall be determined by multiplying the length of the shell by its diameter.		
	Internal	External
Less than 15 sq. ft.	\$27.80	\$20.70
15 sq. ft. to less than 50 sq. ft.	\$41.30	\$20.70
50 sq. ft. to 100 sq. ft.	\$48.10	\$27.80
For each additional 100 sq. ft. or any portion thereof	\$48.10	\$13.70
((Certificate of inspection fees: For objects inspected, the certificate of inspection fee is \$20.70 per object.		
Boiler and pressure vessel installation/reinstallation permit (excludes inspection and certificate of inspection fee)		\$50.00))
Nonnuclear shop inspections, field construction inspections, and special inspection services:		
For each hour or part of an hour up to 8 hours		\$42.10
For each hour or part of an hour in excess of 8 hours		\$62.80
Nuclear shop inspections, nuclear field construction inspections, and nuclear triennial shop survey and audit:		
For each hour or part of an hour up to 8 hours		\$62.80

For each hour or part of an
hour in excess of 8
hours \$98.20

Nonnuclear triennial shop survey and audit:

When state is authorized inspection agency:

For each hour or part of an
hour up to 8 hours \$42.10

For each hour or part of an
hour in excess of 8
hours \$62.80

When insurance company is authorized inspection
agency:

For each hour or part of an
hour up to 8 hours \$62.80

For each hour or part of an
hour in excess of 8
hours \$98.20

Examination fee: A fee of \$77.70 will be charged for each applicant sitting for an inspection examination(s).

Special inspector commission: An initial fee of \$26.30 and an annual renewal fee of \$10.50 along with an annual work card fee of \$15.80.

Expenses shall include:

Travel time and mileage: The department shall charge for its inspectors' travel time from their offices to the inspection sites and return. The travel time shall be charged for at the same rate as that for the inspection, audit, or survey. The department shall also charge the current Washington office of financial management accepted mileage cost fees or the actual cost of purchased transportation. Hotel and meals: Actual cost not to exceed the office of financial management approved rate.

Requests for Washington state specials and extensions of inspection frequency: For each vessel to be considered by the board, a fee of \$390.50 must be paid to the department before the board meets to consider the vessel. The board may, at its discretion, prorate the fee when a number of vessels that are essentially the same are to be considered.