

AMENDATORY SECTION (Amending WSR 10-06-049, filed 2/24/10, effective 4/1/10)

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).
- Additional requirements:
- * Hot water heaters exceeding 120 gallons (454 liters) must be ASME code stamped;
- * Hot water heaters exceeding 200,000 ((BTU)) Btu/hr (58.58 kw) input must be ASME code stamped.
- **"Low pressure boiler"** shall mean a steam boiler operating at a pressure not exceeding 15 psig or a boiler in which water 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. 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.

"Pool heaters" shall mean a gas, oil, or electric appliance that is used to heat water contained in swimming pools, spas, and hot tubs.

(a) Pool heaters with energy input equivalent to 399,999 Btu/hr (117.2 KW) or less shall be manufactured and certified to ANSI Z21.56, UL 1261, CSA 4.7 or equivalent manufacturing standards, as approved by the chief inspector, and are excluded from the limit and control devices requirements of WAC 296-104-300 through 296-104-303.

(b) Pool heaters with energy input of 400,000 Btu/hr and above shall be stamped with an ASME Section IV Code symbol, and the requirements of WAC 296-104-300 through 296-104-303 shall apply.

(c) Pool heaters open to the atmosphere are excluded.

"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 296-104-200 Construction--What are the standards for new construction? The standards for new construction are:

(1) ASME Boiler and Pressure Vessel Code, (~~(2007)~~) 2010 edition, with addenda Sections I, III, IV, VIII, Division 1, 2, 3, X, XII;

(2) ASME PVHO-1 2007 Safety Standard for Pressure Vessels for Human Occupancy; and

(3) Standards of construction approved by the chief inspector and meeting the National Board Criteria for Registration of Boilers, Pressure Vessels and Other Pressure Retaining Items.

These codes and standards may be used on or after the date of issue and become mandatory twelve months after adoption by the board as specified in RCW 70.79.050(2). ASME Code Cases may be approved for use when accepted by the chief inspector. The board recognizes that the ASME Code states that new editions of the code become mandatory on issue and that subsequent addenda become mandatory six months after the date of issue. For nuclear systems, components and parts the time period for addenda becoming mandatory is defined in the Code of Federal Regulations.