Chapter 296-104 WAC
BOARD OF BOILER RULES—SUBSTANTIVE

Last Update: 9/1/26

WAC

296-104-001 Administration—To what do these rules apply?
296-104-010 Administration—What are the definitions of terms used in this chapter?
296-104-015 Administration—When and where are the board meetings held?
296-104-017 Administration—How are rules affected if other rules are invalidated?
296-104-018 Administration—Interpretation of rules—Appeal rights—Hearings.
296-104-019 Administration—How are Washington state specials and extensions of inspection frequencies for boilers and pressure vessels obtained?
296-104-020 Administration—What are the filing requirements for boilers and unfired pressure vessels before their installation/reinstallation?
296-104-021 Administration—What is the registration requirement for new standard boilers and unfired pressure vessels?
296-104-025 Administration—What are the notification and reporting requirements following an accident involving a boiler or pressure vessel?
296-104-030 Administration—What is the penalty for operation of unsafe boilers or unfired pressure vessels?
296-104-035 Administration—What are conflicts of interest for inspectors?
296-104-040 Administration—When should inspectors submit inspection reports and on what forms?
296-104-045 Administration—What are the insurance companies' responsibilities?
296-104-050 Administration—What are the requirements for a boiler inspector?
296-104-060 Administration—When shall an inspectors' Washington state commission be issued, suspended, or revoked?
296-104-065 Administration—How should an inspector obtain a Washington state commission?
296-104-100 Inspection—How often must boilers and unfired pressure vessels be inspected?
296-104-102 Inspection—What are the standards for in-service inspection?
296-104-105 Inspection—How much time is required for notification of an internal inspection?
296-104-110 Inspection—What will be done when boilers or unfired pressure vessels are deemed unsafe or defective?
296-104-115 Inspection—What will be done when defective conditions are concealed by covering?
296-104-125 Inspection—What are the requirements for obtaining a certificate of inspection?
296-104-130 Inspection—When are inspection certificates valid?
296-104-135 Inspection—What are the requirements for restamping of boilers and unfired pressure vessels?
296-104-140 Inspection—How should a state number be assigned and applied?
296-104-145 Inspection—How are groups of vessels operating as a single unit classified?
296-104-150 Inspection—How are unfired steam boilers classified?
296-104-151 Inspection—What are the requirements for rental boilers?
296-104-155 Inspection—What preparations are necessary prior to internal inspections?
296-104-160 Inspection—What happens if a boiler or unfired pressure vessel is improperly prepared for inspection?
296-104-165 Inspection—When should coverings be removed for inspection?
296-104-170 Inspection—When are shop inspections required?
296-104-180 Inspection—How are radioactive systems inspected?
296-104-200 Construction—What are the standards for new construction?
296-104-205 Construction—What are the requirements for nonstandard new construction?
296-104-210 Construction—What are the requirements for construction of boilers and unfired pressure vessels of special design?
296-104-215 Construction—What are the requirements to use nonstandard boilers and unfired pressure vessels other than historical boilers and pressure vessels?
296-104-220 Construction—What are the requirements to use nonstandard second hand boilers and unfired pressure vessels, other than historical boilers and pressure vessels?
296-104-226 Construction—What are the requirements to use historical boilers and pressure vessels?
296-104-245 Construction—Combustible fluid heaters.
296-104-251 Installation—What are the standards for installation for nonnuclear boiler and pressure vessels?
296-104-255 Installation—What are the required clearances for boilers?
296-104-260 Installation—What are the required clearances for unfired pressure vessels?
296-104-265 Installation—What are the requirements for unfired pressure vessels installed underground?
296-104-271 Installation—How does an owner, user, or installer obtain a variance from clearances?
296-104-273 Installation—What inspections are required for reinstalled standard boilers or unfired pressure vessels?
296-104-295 Installation—What are the requirements for an explosion door?
296-104-300 Installation—What control and limit devices are required on automatically fired boilers prior to June 1989?
296-104-301 Installation—What control and limit devices are required on automatically fired power boilers after June 1989?
296-104-302 Installation—What control and limit devices are required on automatically fired hot water heating, hot water supply boilers, coil type hot water heating boilers, low pressure steam boilers, and HLW potable water heaters after June 1989?
296-104-303 Installation—What fuel controls are required on automatically fired boilers after December 1998?
296-104-307 Installation—When are platforms around boilers required?
296-104-316 Installation—What safety pressure relief devices are required on boilers and unfired pressure vessels?

296-104-320 Installation—Where should the discharge from safety pressure relief devices, blow offs and drains be directed?
296-104-325 Installation—What are the requirements for boiler and unfired pressure vessel supports?
296-104-405 Existing installation—How can the maximum allowable working pressure be established for nonstandard boilers or unfired pressure vessels?
296-104-450 Operation—What are the requirements for operation of boilers?
296-104-502 Repairs—What is the standard for nonnuclear repairs and alterations?
296-104-503 Repairs—What are the requirements for nonnuclear boilers and unfired pressure vessel repairs and alterations?
296-104-510 Repairs—When a lap seam crack is discovered along a riveted longitudinal joint on a boiler or unfired pressure vessel, what action is required and what repairs are allowed?
296-104-515 Repairs—Do riveted repairs to boilers and unfired pressure vessels require prior approval?
296-104-520 Repairs—What are the requirements for repair of nonnuclear safety devices?
296-104-535 Repairs—What are the requirements for nuclear repairs/replacement?
296-104-540 Repairs—What are the requirements for nuclear repairs of safety devices?
296-104-700 What are the inspection fees—Examination fees—Certificate fees—Expenses?
296-104-701 What are the civil penalties?

DISPOSITION OF SECTIONS FORMERLY CODIFIED IN THIS CHAPTER

296-104-002 Approval by director. [Approval, filed 3/23/60.] Repealed by WSR 99-22-026, filed 10/26/99, effective 11/26/99. Statutory Authority: RCW 70.79.030 and 70.79.040.

296-104-055 Administration—What are the examination fees? [Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 03-12-051, § 296-104-055, filed 5/30/03, effective 6/30/03; WSR 02-12-021, § 296-104-055, filed 5/28/02, effective 6/28/02; WSR 01-12-034, § 296-104-055, filed 5/29/01, effective 6/29/01. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-055, filed 10/26/99, effective 11/26/99. Statutory Authority: RCW 70.79.040. WSR 93-12-014, § 296-104-055, filed 5/21/93, effective 6/21/93. Statutory Authority: RCW 70.79.030 and 70.79.330. WSR 82-24-025 (Order 82-36), § 296-104-055, filed 11/23/82, effective 1/1/83; Order 74-37, § 296-104-055, filed 11/8/74; Part II, § 8, filed 3/23/60.] Repealed by WSR 04-01-194, filed 12/24/03, effective 1/24/04. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW.

296-104-107 Inspection—Which unfired pressure vessels in places of public assembly are subject to these rules? [Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 97-20-109, § 296-104-107, filed 9/30/97, effective 10/31/97.] Repealed by WSR 99-22-026, filed 10/26/99, effective 11/26/99. Statutory Authority: RCW 70.79.030 and 70.79.040.

296-104-120 Inspection—Condemned boilers or unfired pressure vessel. [Statutory Authority: RCW 70.79.040. WSR 91-11-107, § 296-104-120, filed 5/22/91, effective 6/22/91; Part III, § 5, filed 3/23/60.] Repealed by WSR 95-19-058, filed 9/15/95, effective 10/16/95. Statutory Authority: RCW 70.79.030 and 70.79.040.

296-104-195 Pressure vessel clearances. [Statutory Authority: RCW 70.79.040. WSR 90-04-009, § 296-104-195, filed 1/26/90, effective 2/26/90.] Repealed by WSR 96-21-081, filed 10/16/96, effective 11/16/96. Statutory Authority: RCW 70.79.030 and 70.79.040.

296-104-201 Inspection of systems—Standard for water chillers. [Statutory Authority: RCW 70.79.030. WSR 80-14-015 (Order 80-12), § 296-104-201, filed 9/23/80.] Repealed by WSR 86-01-088 (Order 85-26), filed 12/19/85. Statutory Authority: RCW 70.79.040 and 70.79.050.

296-104-225 Inspection of systems—Reinstalled boiler or unfired pressure vessel. [Part IV, § 6, filed 3/23/60.] Repealed by WSR 96-21-081, filed 10/16/96, effective 11/16/96. Statutory Authority: RCW 70.79.030 and 70.79.040.

296-104-230 Construction—What are the testing requirements for new boilers or unfired pressure vessels exempted from code requirements for volume, pressure or temperature? [Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, § 296-104-230, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-230, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 96-21-081, § 296-104-230, filed 10/16/96, effective 11/16/96; Order 74-37, § 296-104-230, filed 11/8/74; Part IV, § 7, filed 3/23/60.] Repealed by WSR 13-10-018, filed 4/23/13, effective 6/1/13. Statutory Authority: Chapter 70.79 RCW.

296-104-235 Construction—What are the requirements for code exempted boiler and unfired pressure vessel safety relief valves? [Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-235, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 96-21-081, § 296-104-235, filed 10/16/96, effective 11/16/96. Statutory Authority: RCW 70.79.030. WSR 78-03-057 (Order 78-3), § 296-104-235, filed 2/22/78; Part IV, § 8, filed 3/23/60.] Repealed by WSR 13-10-018, filed 4/23/13, effective 6/1/13. Statutory Authority: Chapter 70.79 RCW.

296-104-240 Construction—When are piping components considered unfired pressure vessels? [Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-240, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 96-21-081, § 296-104-240, filed 10/16/96, effective 11/16/96; Part IV, § 9, filed 3/23/60.] Repealed by WSR 02-23-036, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW.

296-104-250 Inspection of systems—Hot water heating systems. [Part IV, § 11, filed 3/23/60.] Repealed by WSR 78-03-057 (Order 78-3), filed 2/22/78. Statutory Authority: RCW 70.79.030.

296-104-256 Installation—What inspections are required for reinstalled standard boilers or unfired pressure vessels? [Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 01-24-061, § 296-104-256, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR

96-21-081, § 296-104-256, filed 10/16/96, effective 11/16/96.] Decodified by WSR 02-23-036, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. Recodified as § 296-104-273.

296-104-256 Installation—What are the required clearances for boilers? [Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-256, filed 12/24/03, effective 1/24/04; WSR 02-23-036, amended and recodified as § 296-104-256, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 96-21-081, § 296-104-260, filed 10/16/96, effective 11/16/96. Statutory Authority: Chapter 70.79 RCW. WSR 89-15-025 (Order 89-05), § 296-104-260, filed 7/13/89, effective 8/13/89; Part IV, § 13, filed 3/23/60.] Repealed by WSR 06-24-042, filed 11/30/06, effective 1/1/07. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350.

296-104-260 Installation—Clearance front, back and sides. [Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 96-21-081, § 296-104-260, filed 10/16/96, effective 11/16/96. Statutory Authority: Chapter 70.79 RCW. WSR 89-15-025 (Order 89-05), § 296-104-260, filed 7/13/89, effective 8/13/89; Part IV, § 13, filed 3/23/60.] Amended and decodified by WSR 02-23-036, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. Recodified as § 296-104-256.

296-104-265 Installation—What control and limit devices are required on boilers? [Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 01-24-061, § 296-104-265, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-265, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-265, filed 10/28/98, effective 11/28/98; WSR 97-20-109, § 296-104-265, filed 9/30/97, effective 10/31/97. Statutory Authority: RCW 70.79.240. WSR 88-01-064 (Order 87-25), § 296-104-265, filed 12/17/87; Part IV, § 14, filed 3/23/60.] Decodified by WSR 02-23-036, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. Recodified as § 296-104-300.

296-104-270 Installation—What are the requirements for an explosion door? [Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 97-20-109, § 296-104-270, filed 9/30/97, effective 10/31/97; Part IV, § 15, filed 3/23/60.] Decodified by WSR 02-23-036, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. Recodified as § 296-104-295.

296-104-273 Installation—Pressure vessel clearances. [Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 96-21-081, § 296-104-273, filed 10/16/96, effective 11/16/96.] Amended and decodified by WSR 02-23-036, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. Recodified as § 296-104-260.

296-104-275 Inspection of systems—Hydro-pneumatic tanks. [Part IV, § 16, filed 3/23/60.] Repealed by WSR 78-03-057 (Order 78-3), filed 2/22/78. Statutory Authority: RCW 70.79.030.

296-104-280 Inspection of systems—Electric steam generators. [Part IV, § 17, filed 3/23/60.] Repealed by WSR 78-03-057 (Order 78-3), filed 2/22/78. Statutory Authority: RCW 70.79.030.

296-104-285 Unfired pressure vessels in places of public assembly. [Statutory Authority: RCW 70.79.030. WSR 78-03-057 (Order 78-3), § 296-104-285, filed 2/22/78.] Repealed by WSR 99-08-049, filed 4/1/99, effective 5/2/99. Statutory Authority: RCW 70.79.030 and 70.79.040.

296-104-300 Installation—When do I need to provide platforms around boilers? [Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 97-20-109, § 296-104-300, filed 9/30/97, effective 10/31/97; Part V, § 1, filed 3/23/60.] Decodified by WSR 02-23-036, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. Recodified as § 296-104-307.

296-104-305 Installation—How many exits are required in boiler rooms? [Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 97-20-109, § 296-104-305, filed 9/30/97, effective 10/31/97; Part V, § 2, filed 3/23/60.] Decodified by WSR 02-23-036, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. Recodified as § 296-104-310.

296-104-307 Installation—What safety pressure relief devices are required on boilers and pressure vessels? [Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-307, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-307, filed 10/28/98, effective 11/28/98.] Decodified by WSR 02-23-036, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. Recodified as § 296-104-316.

296-104-310 Installation—Where should the discharge from safety valves, blow offs and drains be directed? [Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-310, filed 10/28/98, effective 11/28/98; WSR 97-20-109, § 296-104-310, filed 9/30/97, effective 10/31/97; Part V, § 3, filed 3/23/60.] Decodified by WSR 02-23-036, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. Recodified as § 296-104-320.

296-104-310 Installation—How many exits are required in boiler rooms? [Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, recodified as § 296-104-310, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 97-20-109, § 296-104-305, filed 9/30/97, effective 10/31/97; Part V, § 2, filed 3/23/60.] Repealed by WSR 09-12-033, filed 5/27/09, effective 6/30/09. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350.

296-104-315 New installations—Blow off tanks. [Statutory Authority: RCW 70.79.030. WSR 78-03-057 (Order 78-3), § 296-104-315, filed 2/22/78; Part V, § 4, filed 3/23/60.] Repealed by WSR

89-15-025 (Order 89-05), filed 7/13/89, effective 8/13/89. Statutory Authority: Chapter 70.79 RCW.

296-104-320 Installation—What are the requirements for underground installations? [Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 97-20-109, § 296-104-320, filed 9/30/97, effective 10/31/97; Part V, § 5, filed 3/23/60.] Decodified by WSR 02-23-036, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. Recodified as § 296-104-265.

296-104-330 Installation—What are the relief or safety valve requirements when pressure reducing valves are used? [Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 08-12-015, § 296-104-330, filed 5/27/08, effective 6/30/08. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 97-20-109, § 296-104-330, filed 9/30/97, effective 10/31/97; Part V, § 7, filed 3/23/60.] Repealed by WSR 13-10-018, filed 4/23/13, effective 6/1/13. Statutory Authority: Chapter 70.79 RCW.

296-104-400 Existing installations—Stamping of existing boilers and unfired pressure vessels. [Statutory Authority: RCW 70.79.040. WSR 90-20-029, § 296-104-400, filed 9/24/90, effective 10/25/90; Part VI, § 1, filed 3/23/60.] Repealed by WSR 97-20-109, filed 9/30/97, effective 10/31/97. Statutory Authority: RCW 70.79.030 and 70.79.040.

296-104-410 Existing installations—Noncode steel heating boilers. [Part VI, § 3, filed 3/23/60.] Repealed by WSR 97-20-109, filed 9/30/97, effective 10/31/97. Statutory Authority: RCW 70.79.030 and 70.79.040.

296-104-415 Existing installations—Noncode cast iron boilers. [Part VI, § 4, filed 3/23/60.] Repealed by WSR 97-20-109, filed 9/30/97, effective 10/31/97. Statutory Authority: RCW 70.79.030 and 70.79.040.

296-104-500 Nonnuclear repairs. [Statutory Authority: RCW 70.79.040. WSR 93-12-014, § 296-104-500, filed 5/21/93, effective 6/21/93; WSR 92-11-070, § 296-104-500, filed 5/20/92, effective 6/20/92. Statutory Authority: RCW 70.79.030. WSR 86-04-059 (Order 86-01), § 296-104-500, filed 2/4/86. Statutory Authority: RCW 70.79.030 and 70.79.330. WSR 84-21-012 (Order 84-20), § 296-104-500, filed 10/5/84; Part VII, § 1, filed 3/23/60.] Repealed by WSR 94-21-002, filed 10/5/94, effective 11/5/94. Statutory Authority: RCW 70.79.040.

296-104-501 Nonnuclear alterations. [Statutory Authority: RCW 70.79.040. WSR 93-12-014, § 296-104-501, filed 5/21/93, effective 6/21/93; WSR 92-11-070, § 296-104-501, filed 5/20/92, effective 6/20/92. Statutory Authority: RCW 70.79.030. WSR 86-04-059 (Order 86-01), § 296-104-501, filed 2/4/86.] Repealed by WSR 94-21-002, filed 10/5/94, effective 11/5/94. Statutory Authority: RCW 70.79.040.

296-104-505 Repairs—Repairs by fusion welding. [Part VII, § 2, filed 3/23/60.] Repealed by WSR 94-21-002, filed 10/5/94, effective 11/5/94. Statutory Authority: RCW 70.79.040.

296-104-525 Repairs—Hydrostatic pressure tests. [Part VII, § 6, filed 3/23/60.] Repealed by WSR 98-22-024, filed 10/28/98, effective 11/28/98. Statutory Authority: RCW 70.79.030 and 70.79.040.

296-104-530 Repairs—Can air or vapor testing be performed? [Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-530, filed 10/28/98, effective 11/28/98. Statutory Authority: RCW 70.79.040. WSR 92-11-070, § 296-104-530, filed 5/20/92, effective 6/20/92; Part VII, § 7, filed 3/23/60.] Repealed by WSR 04-01-194, filed 12/24/03, effective 1/24/04. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW.

296-104-600 General requirements—Conditions not covered by these rules. [Part VIII, § 1, filed 3/23/60.] Repealed by WSR 98-22-024, filed 10/28/98, effective 11/28/98. Statutory Authority: RCW 70.79.030 and 70.79.040.

296-104-800 Inspection of systems subject to radioactivity. [Statutory Authority: RCW 70.79.240. WSR 88-01-064 (Order 87-25), § 296-104-800, filed 12/17/87.] Repealed by WSR 98-22-024, filed 10/28/98, effective 11/28/98. Statutory Authority: RCW 70.79.030 and 70.79.040.

296-104-801 Nuclear repairs/replacement. [Statutory Authority: RCW 70.79.040. WSR 91-11-106, § 296-104-801, filed 5/22/91, effective 6/22/91.] Repealed by WSR 98-22-024, filed 10/28/98, effective 11/28/98. Statutory Authority: RCW 70.79.030 and 70.79.040.

296-104-805 Nuclear repairs—Safety devices. [Statutory Authority: RCW 70.79.040. WSR 91-11-106, § 296-104-805, filed 5/22/91, effective 6/22/91.] Repealed by WSR 98-22-024, filed 10/28/98, effective 11/28/98. Statutory Authority: RCW 70.79.030 and 70.79.040.

WAC 296-104-001 Administration—To what do these rules apply? The following rules and regulations apply to all boilers and unfired pressure vessels except those exempt under RCW 70.79.080. Boilers and unfired pressure vessels listed under RCW 70.79.090 are exempt from inspection and fees, but shall comply with all rules for construction, installation, repairs and general requirements.

[Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-001, filed 10/26/99, effective 11/26/99; Promulgation, filed 3/23/60.]

WAC 296-104-010 Administration—What are the definitions of terms used in this chapter? (1) **"Accident"** shall mean a failure of

the boiler or unfired pressure vessel resulting in personal injury or property loss or an event which renders a boiler or unfired pressure vessel unsafe to return to operation.

(2) **"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.

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

(4) **"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.

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

(6) **"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.

(7) **"Boilers and/or unfired pressure vessels"** - Below are definitions for types of boilers and unfired pressure vessels used in these regulations:

(a) **"Boiler"** shall mean a closed vessel in which water or other liquid is heated, steam or vapor generated, steam or vapor is superheated, or any combination thereof, under pressure for use external to itself, by the direct application of energy from the combustion of fuels or from electricity or solar energy. The term "boiler" shall include the apparatus used to generate heat and all controls and safety devices associated with such apparatus or the closed vessel. Below are the types of boiler classifications:

(i) **"Hot water heating boiler"** shall mean a boiler in which water is heated in a closed loop and intended for operation at pressures not exceeding 160 psig or temperatures not exceeding 250 degrees F. Boilers open to atmosphere and vacuum boilers are excluded.

(ii) **"Hot water supply boiler"** shall mean a boiler in which water is heated in a potable water supply system and intended for operation at pressures not exceeding 160 psig or temperatures not exceeding 210 degrees F and is provided with a corrosion resistant lining or constructed with corrosion resistant materials.

(iii) **"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.

(iv) **"Steam heating boiler"** shall mean a steam boiler operating at a pressure not exceeding 15 psig.

(b) **"Boiler/unfired pressure vessel status"** shall mean:

(i) Active - Boilers or pressure vessels that are currently in service.

(ii) Inactive - Boilers or pressure vessels still located at the facility but are physically disconnected from the energy input and system.

(iii) Out-of-service - Boilers or pressure vessels that are no longer at the facility.

(iv) Scrapped - Boilers or pressure vessels that have been condemned as defined below.

(c) **"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. The following procedure shall be utilized:

(i) The inspector will issue and follow the department's "red tag" procedure.

(ii) The object will be immediately removed from service.

(iii) The existing national board and state number shall be obliterated by the inspector.

(iv) The ASME nameplate and/or stamping shall be physically removed by the owner/user and verified by the inspector.

(v) If required by the inspector, a portion of the pressure vessel shall be physically removed by the owner/user. This action will render the object incapable of holding pressure.

(vi) The inspector shall document this procedure on the boiler/pressure vessel inspection report and change the object status to "scrapped."

(d) **"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.

(e) **"Historical boilers and unfired pressure vessel"** shall mean nonstandard boilers and pressure vessels including steam tractors, traction engines, hobby steam boilers, portable steam boilers, and other such boilers or pressure vessels that are preserved, restored, and maintained only for demonstration, viewing, or educational purposes. They do not include miniature hobby boilers as described in RCW 70.79.080.

(f) **"Jacketed steam kettle"** shall mean a pressure vessel with inner and outer walls that is subject to steam pressure and is used to boil or heat liquids or to cook food. Jacketed steam kettles with a total volume greater than or equal to one and one-half cubic feet (11.25 gallons) shall be ASME code stamped.

(i) **"Direct fired jacketed steam kettle"** is a jacketed steam kettle having its own source of energy, such as gas or electricity for generating steam within the jacket's walls.

(ii) **"Unfired jacketed steam kettle"** is one where the steam within the jacket's walls is generated external to itself, such as from a boiler or other steam source.

(g) **"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.

(h) **"Organic vapor boiler,"** also known as **"organic fluid vaporizer"** shall mean a device that turns organic fluids into vapor. Organic fluids are volatile organic compounds (VOCs) or synthetic fluids with high molecular weight and low boiling points.

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

(i) 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, UL1261, 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.

(ii) 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.

(iii) Pool heaters without shut-off valves on the discharge side are considered open to the atmosphere, and therefore are exempt from inspection requirements.

(j) **"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.

(k) **"Rental boiler"** shall mean any power or low pressure heating boiler that is under a rental contract between owner and user.

(l) **"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.

(m) **"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.

(n) **"Unfired pressure vessel"** shall mean a closed vessel under pressure excluding:

(i) Fired process tubular heaters;

(ii) 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;

(iii) Piping whose primary function is to transport fluids from one location to another;

(iv) Those vessels defined as low pressure heating boilers or power boilers.

(o) **"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.

(p) **"Water heater"** means a "hot water heater" per RCW 70.79.080 and 70.79.090. For purposes of this chapter, "water heater" shall mean a closed vessel designed to supply hot water for external use to the system.

(i) All vessels must be listed by a nationally recognized testing agency.

(ii) Vessels shall be protected with an approved temperature and pressure safety relief valve with the appropriate pressure and relieving capacity ratings.

(iii) The water heater shall not exceed any of the following limits:

(A) Pressure of 160 psi (1100 kpa);

(B) Temperature of 210 degrees F (99°C);

(C) 120 gallons in capacity;

(D) 200,000 Btu/hr (58.6 kW).

(iv) Additional requirements:

(A) Water heaters exceeding 120 gallons (454 liters) must be ASME code stamped.

(B) Water heaters exceeding 200,000 Btu/hr (58.6 kW) input must be ASME code stamped and shall be considered a hot water supply boiler.

(q) **"Water heater, indirect"** shall mean a closed vessel appliance used to heat water for use external to itself, which includes a heat exchanger used to transfer heat to water from an external source. The requirements and limits described above shall apply.

(8) **"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.

(9) **"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.

(10) **"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.

(11) **"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.

(12) **"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.

(13) **"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.

(14) **"Corrosion"** shall mean the destruction or deterioration of a material that results from a reaction with its environment.

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

(16) **"Director"** shall mean the director of the department of labor and industries.

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

(18) **"Existing installations"** shall mean any boiler or unfired pressure vessel constructed, installed, placed in operation, or contracted for before January 1, 1952.

(19) **"Inspection certificate"** see "certificate of inspection."

(20) **"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.

(21) **"Inspection, internal"** shall mean an inspection made when a boiler is shut down and handholes, manholes, water leg and control manifold, or other inspection openings (including fireside for combustion fuels) are open or removed for examination of the interior. Unfired pressure vessels are depressurized and 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.

(22) **"Inspector"** shall mean the chief boiler inspector, a deputy inspector, or a special inspector.

(a) **"Chief inspector"** shall mean the inspector appointed under RCW 70.79.100 who serves as the secretary to the board without a vote.

(b) **"Deputy inspector"** shall mean an inspector appointed under RCW 70.79.120.

(c) **"Special inspector"** shall mean an inspector holding a Washington commission identified under RCW 70.79.130.

(23) **"Installer"** shall mean any entity or individual who physically or mechanically installs a boiler, pressure vessel, or water heater that meets the in-service inspection requirements of this chapter. The installer is defined as a registered contractor, owner, user, or designee.

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

(25) **"Operating permit"** see "certificate of inspection."

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

(27) **"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.

(28) **"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 13 or more children), public and private hospitals, nursing homes, and assisted living facilities that provide housing and basic services for seven or more residents.

(29) **"Repair organization"** shall mean an organization in possession of a valid "Certificate of Authorization" from the National Board of Boiler and Pressure Vessel Inspectors, to use the "R" symbol stamp for repair and/or alteration to pressure retaining items within their scope of authority.

(30) **"Special design"** shall mean a design using nationally or internationally recognized engineering standards other than the codes adopted in WAC 296-104-200.

[Statutory Authority: Chapter 70.79 RCW. WSR 26-18-075 (Order 25-27), s 296-104-010, filed 9/1/26, effective 10/2/26; WSR 25-09-124, s 296-104-010, filed 4/22/25, effective 7/1/25; WSR 21-03-067, § 296-104-010, filed 1/19/21, effective 2/19/21; WSR 19-15-120, § 296-104-010, filed 7/23/19, effective 9/1/19; WSR 18-23-092, § 296-104-010, filed 11/20/18, effective 1/1/19; WSR 18-01-113, § 296-104-010, filed 12/19/17, effective 1/31/18; WSR 15-14-100, § 296-104-010, filed 6/30/15, effective 9/1/15; WSR 13-10-018, § 296-104-010, filed 4/23/13, effective 6/1/13. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and 2009 c 90. WSR 10-06-049, § 296-104-010, filed 2/24/10, effective 4/1/10. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 08-12-015, § 296-104-010, filed 5/27/08, effective 6/30/08; WSR 06-24-042, § 296-104-010, filed 11/30/06, effective 1/1/07. Statutory Authority: Chapter 70.79 RCW.

WSR 04-21-069, § 296-104-010, filed 10/19/04, effective 1/1/05. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-010, filed 12/24/03, effective 1/24/04; WSR 02-23-036, § 296-104-010, filed 11/13/02, effective 12/14/02; WSR 01-24-061, § 296-104-010, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-010, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-010, filed 10/26/99, effective 11/26/99; WSR 98-22-024, § 296-104-010, filed 10/28/98, effective 11/28/98; WSR 96-21-081, § 296-104-010, filed 10/16/96, effective 11/16/96. Statutory Authority: RCW 70.79.040. WSR 94-21-002, § 296-104-010, filed 10/5/94, effective 11/5/94; WSR 93-12-014, § 296-104-010, filed 5/21/93, effective 6/21/93; WSR 92-11-070, § 296-104-010, filed 5/20/92, effective 6/20/92. Statutory Authority: RCW 70.79.240. WSR 88-01-064 (Order 87-25), § 296-104-010, filed 12/17/87. Statutory Authority: RCW 70.79.040 and 70.79.050. WSR 86-01-088 (Order 85-26), § 296-104-010, filed 12/19/85; Order 72-11, § 296-104-010, filed 7/7/72; Part I, filed 3/23/60.]

WAC 296-104-015 Administration—When and where are the board meetings held? The board of boiler rules shall hold its regular meetings quarterly. The time, place, and date of each regular meeting shall be set by the department, approved by the board chair and published annually. Special meetings may be called by the chair.

[Statutory Authority: Chapter 70.79 RCW. WSR 18-01-113, § 296-104-015, filed 12/19/17, effective 1/31/18. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 09-12-033, § 296-104-015, filed 5/27/09, effective 6/30/09. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-015, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-015, filed 9/15/95, effective 10/16/95. Statutory Authority: RCW 70.79.040. WSR 91-11-107, § 296-104-015, filed 5/22/91, effective 6/22/91. Statutory Authority: RCW 70.79.050. WSR 90-07-082, § 296-104-015, filed 3/21/90, effective 4/21/90. Statutory Authority: RCW 70.79.040 and 70.79.050. WSR 86-01-088 (Order 85-26), § 296-104-015, filed 12/19/85; Order 72-11, § 296-104-015, filed 7/7/72.]

WAC 296-104-017 Administration—How are rules affected if other rules are invalidated? Should any section, subsection, sentence, clause, phrase, provision or exemption of these rules be declared unconstitutional or invalid for any reason, such invalidity shall not affect the remaining portion or provisions.

[Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-017, filed 10/28/98, effective 11/28/98.]

WAC 296-104-018 Administration—Interpretation of rules—Appeal rights—Hearings. (1) Any person desiring clarification or interpretation and/or application of the rules in this chapter shall submit a request in writing to the chief inspector upon the "chief inspector

clarification and interpretation request form." The chief inspector shall issue a written decision responding to such a request.

(2) Any person who disputes the interpretation and/or application of the rule(s) by the chief inspector may ask the board of boiler rules (board) for its interpretation. Such requests must:

(a) Be submitted in writing to the board upon the "board of boiler rules interpretation and revision request form";

(b) Be received by the secretary to the board (the chief inspector) within thirty days after the date on which the chief inspector's written decision was served on the person making the request; and

(c) Be received by the secretary at least forty-five days before the board meeting date for inclusion at the next regularly scheduled board meeting. Otherwise, the request will be heard and considered at the following board meeting.

At the meeting, the board will affirm, modify or revoke the department's interpretation and a written order reflecting the board's decision will be issued by the chair.

(3) A party may seek judicial review of a final order of the board within thirty days after service of the order, in accordance with RCW 34.05.542.

(4) Any person, firm, partnership, corporation, or other entity wishing to appeal a penalty issued under chapter 70.79 RCW or this chapter must file a written notice of appeal with the chief boiler inspector within twenty days after the date on which the notice of the penalty was served on the assessed party. In the hearing of the appeal, the department has the burden of proof by a preponderance of the evidence. At the hearing, the board will decide the appropriateness of the penalty and may either affirm, modify or overturn the assessment. The parties shall prepare and submit an order reflecting the board's decision to the chair of the board.

(5) Except as provided in chapter 70.79 RCW and this chapter, all proceedings before the board and the courts will be conducted according to chapter 34.05 RCW, Administrative Procedure Act and chapter 10-08 WAC, Model rules of procedure.

[Statutory Authority: Chapter 70.79 RCW. WSR 13-10-018, § 296-104-018, filed 4/23/13, effective 6/1/13. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 09-12-033, § 296-104-018, filed 5/27/09, effective 6/30/09; WSR 07-11-137, § 296-104-018, filed 5/22/07, effective 6/30/07; WSR 05-22-092, § 296-104-018, filed 11/1/05, effective 1/1/06. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-018, filed 10/26/99, effective 11/26/99. Statutory Authority: RCW 70.79.040. WSR 92-11-070, § 296-104-018, filed 5/20/92, effective 6/20/92.]

WAC 296-104-019 Administration—How are Washington state specials and extensions of inspection frequencies for boilers and pressure vessels obtained? Stakeholders may request a Washington state special or an extension of inspection frequencies for boilers and pressure vessels by submitting a written request to the board of boiler rules. The request shall be in writing upon the appropriate form furnished by the chief inspector located on the boiler program website. These requests shall be submitted to the department of labor and

industries forty-five days prior to the board of boiler rules meeting date.

(1) Washington state specials may be granted for boilers and pressure vessels that meet the requirements of RCW 70.79.060, WAC 296-104-205, 296-104-210, and 296-104-220.

(2) Extension of inspection frequencies may be granted for boilers and pressure vessels that meet the requirements of RCW 70.79.240 and 70.79.260.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 09-12-033, § 296-104-019, filed 5/27/09, effective 6/30/09.]

WAC 296-104-020 Administration—What are the filing requirements for boilers and unfired pressure vessels before their installation/reinstallation? (1) "Boiler/pressure vessel, water heater installation or reinstallation permit" shall mean a permit approved by the chief inspector and submitted by the installer prior to starting installation or reinstallation of any boiler/pressure vessel or water heater within the jurisdiction of Washington.

(2) The "installer" is any entity or person who physically or mechanically installs a boiler, pressure vessel or water heater that meets the in-service inspection requirements of this chapter. The installer is responsible for the installation/reinstallation permit fee per WAC 296-104-700.

(3) If a nonconformance condition or deficiency is found on the initial permit inspection, the installer will be responsible for implementing immediate corrective action and any subsequent inspection fees after corrections per the fee schedule in WAC 296-104-700.

(4) The following pressure retaining items, as defined in WAC 296-104-010, require a boiler/pressure vessel and water heater installation or reinstallation permit:

- Expansion tanks;
- Historical boilers and unfired pressure vessels;
- Indirect water heaters;
- Jacketed steam kettles;
- Low pressure boilers;
- Nonstandard boilers and unfired pressure vessels;
- Pool heaters;
- Power boilers;
- Reinstalled boilers and unfired pressure vessels;
- Secondhand boilers and unfired pressure vessels;
- Standard boilers and unfired pressure vessels;
- Unfired pressure vessels;
- Unfired steam boilers;
- Water heaters.

(5) The installer shall notify the chief inspector utilizing the permit form to request a permit inspection not less than 10 working days prior to placing equipment in operation. Equipment shall not be operated other than for testing, prior to an inspection being conducted which finds the boiler or pressure vessel to be in compliance with this chapter.

(6) If an emergency installation (due to leakage, failure, etc.) situation occurs, the installer will notify the chief inspector within

48 hours after installation, utilizing the permit form to request an immediate inspection of the installation.

(7) The installer may be subject to civil penalties per WAC 296-104-701 for failure to comply with the filing requirements of the installation permit.

[Statutory Authority: Chapter 70.79 RCW. WSR 26-18-075 (Order 25-27), s 296-104-020, filed 9/1/26, effective 10/2/26; WSR 24-12-068, § 296-104-020, filed 6/4/24, effective 7/5/24; WSR 18-01-113, § 296-104-020, filed 12/19/17, effective 1/31/18. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 09-12-033, § 296-104-020, filed 5/27/09, effective 6/30/09. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, § 296-104-020, filed 11/13/02, effective 12/14/02; WSR 01-24-061, § 296-104-020, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-020, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-020, filed 9/15/95, effective 10/16/95; Order 74-37, § 296-104-020, filed 11/8/74; Part II, § 1, filed 3/23/60.]

WAC 296-104-021 Administration—What is the registration requirement for new standard boilers and unfired pressure vessels? Manufacturers' data report for new "standard boilers and unfired pressure vessels" shall be registered with the National Board of Boiler and Pressure Vessel Inspectors.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, § 296-104-021, filed 11/13/02, effective 12/14/02.]

WAC 296-104-025 Administration—What are the notification and reporting requirements following an accident involving a boiler or pressure vessel? When an accident occurs which renders a boiler or unfired pressure vessel inoperative, the owner or user shall notify the chief inspector, and submit a detailed report of the accident. In cases of accidents, such as explosions or those resulting in personal injury, notice to the chief inspector shall be given immediately by telephone or electronic means designed to assure its earliest possible receipt. Neither the boiler or unfired pressure vessel nor any parts thereof shall be removed or disturbed before an inspection has been made by the chief inspector, or his designee except for the purpose of saving life or limiting consequential damage. The inspector making the investigation and inspection shall report to the chief inspector as soon as possible. The boiler or pressure vessel owner shall be responsible for all costs of the department's investigation.

[Statutory Authority: Chapter 70.79 RCW. WSR 13-10-018, § 296-104-025, filed 4/23/13, effective 6/1/13. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-025, filed 10/26/99, effective 11/26/99; WSR 96-21-081, § 296-104-025, filed 10/16/96, effective 11/16/96; WSR 95-19-058, § 296-104-025, filed 9/15/95, effective 10/16/95; Part II, § 2, filed 3/23/60.]

WAC 296-104-030 Administration—What is the penalty for operation of unsafe boilers or unfired pressure vessels? In the event that a boiler or unfired pressure vessel is unsafe to operate, the inspection certificate shall be suspended. Any person, firm, partnership, or corporation causing such objects to be operated under pressure without a valid certificate of inspection shall be in violation of RCW 70.79.320 and subject to the penalties specified in WAC 296-104-701.

[Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-030, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-030, filed 9/15/95, effective 10/16/95; Part II, § 3, filed 3/23/60.]

WAC 296-104-035 Administration—What are conflicts of interest for inspectors? Inspectors commissioned by the state of Washington shall not engage in the sale of any service, article, or device or promote any other activity for personal gain relating to boilers or unfired pressure vessels or their appurtenances.

[Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-035, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-035, filed 9/15/95, effective 10/16/95; Part II, § 4, filed 3/23/60.]

WAC 296-104-040 Administration—When should inspectors submit inspection reports and on what forms? In-service reports of inspections of boilers and unfired pressure vessels shall be submitted within thirty days of inspection. Inspectors shall submit reports of inspections directly into the state's electronic inspection report system.

If an authorized in-service inspection agency or inspector does not have direct access to the state's electronic inspection report system, they shall be responsible for applicable processing fees incurred by the department as defined in WAC 296-104-700.

Reports of reinspection after suspension of an inspection certificate shall be submitted by an inspector as soon as notice of corrective action has been received.

[Statutory Authority: Chapter 70.79 RCW. WSR 19-15-120, § 296-104-040, filed 7/23/19, effective 9/1/19. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 01-24-061, § 296-104-040, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-040, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-040, filed 9/15/95, effective 10/16/95; Order 74-37, § 296-104-040, filed 11/8/74; Part II, § 5, filed 3/23/60.]

WAC 296-104-045 Administration—What are the insurance companies' responsibilities? All insurance companies shall notify the chief inspector within thirty days of all boiler and/or unfired pressure vessel risks written, canceled, not renewed or suspended. Special inspectors shall perform all in-service inspections of boilers and unfired pressure vessels insured by their employer.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 08-24-072, § 296-104-045, filed 12/1/08, effective 1/1/09. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 01-24-061, § 296-104-045, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-045, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-045, filed 9/15/95, effective 10/16/95; Part II, § 6, filed 3/23/60.]

WAC 296-104-050 Administration—What are the requirements for a boiler inspector? Application for examination for a Washington state certificate of competency shall be in writing upon a form to be furnished by the chief inspector stating the school and education of the applicant, a list of employers, period of employment and position held with each employer. Applications containing willful falsification or untruthful statements shall be rejected.

In order to qualify as a prospective inspector, an applicant shall meet the minimum requirements as set forth in the national board's "Rules for Commissioned Inspectors," NB263, (current edition) or API-510 (current edition), as appropriate.

If the applicant's history and experience meet with the approval of the chief inspector based on the board of boiler rules approved criteria, the candidate shall be given the Washington state examination. If the applicant is accepted on the merits of these examinations or as provided for in WAC 296-104-065, and the applicant is in possession of a national board commission or API-510 certification, as appropriate, a Washington state certificate of competency will be issued by the chief inspector.

For those applicants sitting for the national board examination in conjunction with the Washington state examination, a certificate of competency will be issued by the chief inspector upon receipt of a valid national board commission.

Examinations shall be held at locations and times when considered necessary by the chief inspector. The examinations may be offered four times each year, namely, the first Wednesday and following Thursday of the months of March, June, September and December. Special examinations may be held when considered necessary by the chief inspector.

[Statutory Authority: Chapter 70.79 RCW. WSR 15-14-100, § 296-104-050, filed 6/30/15, effective 9/1/15; WSR 14-13-087, § 296-104-050, filed 6/17/14, effective 8/1/14. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 08-12-015, § 296-104-050, filed 5/27/08, effective 6/30/08. Statutory Authority: Chapter 70.79 RCW. WSR 04-21-069, § 296-104-050, filed 10/19/04, effective 1/1/05. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-050, filed 12/24/03, effective 1/24/04; WSR 02-23-036, § 296-104-050, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-050, filed 10/26/99, effective 11/26/99. Statutory Authority: RCW 70.79.040. WSR 94-21-002, § 296-104-050, filed 10/5/94, effective 11/5/94. Statutory Authority: Chapter 70.79 RCW. WSR 89-15-025 (Order 89-05), § 296-104-050, filed 7/13/89, effective

8/13/89. Statutory Authority: RCW 70.79.030. WSR 78-03-057 (Order 78-3), § 296-104-050, filed 2/22/78; Part II, § 7, filed 3/23/60.]

WAC 296-104-060 Administration—When shall an inspectors' Washington state commission be issued, suspended, or revoked? The chief inspector shall issue a commission as a deputy or special inspector in accordance with RCW 70.79.120 and 70.79.130.

The deputy inspector commission shall be held by the chief inspector. The deputy inspector commission shall be valid for one year and may be renewed annually at the request of the chief inspector. The special inspector commission shall be held at the home office of the employing company and shall be valid for one year and may be renewed annually at the request of the employing company. Inspectors shall carry identifying commission cards while they are inspecting. The state or employing company shall return the commission and the identifying commission card at once to the chief inspector when the inspector to whom the commission was issued is no longer in its employ, or at the request of the chief inspector.

An inspector's commission may be suspended or revoked in accordance with RCW 70.79.180.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-060, filed 12/24/03, effective 1/24/04; WSR 02-23-036, § 296-104-060, filed 11/13/02, effective 12/14/02; WSR 02-12-021, § 296-104-060, filed 5/28/02, effective 6/28/02; WSR 01-24-061, § 296-104-060, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-060, filed 10/26/99, effective 11/26/99. Statutory Authority: RCW 70.79.040. WSR 94-21-002, § 296-104-060, filed 10/5/94, effective 11/5/94. Statutory Authority: RCW 70.79.030 and 70.79.330. WSR 82-24-025 (Order 82-36), § 296-104-060, filed 11/23/82, effective 1/1/83; Order 74-37, § 296-104-060, filed 11/8/74; Part II, § 9, filed 3/23/60.]

WAC 296-104-065 Administration—How should an inspector obtain a Washington state commission? A commission as a deputy inspector of boilers and/or unfired pressure vessels may be issued by the chief inspector to an inspector complying with WAC 296-104-065 (1) or (4). Upon the request of a boiler insurance company authorized to insure and insuring against loss from explosion of boilers and/or unfired pressure vessels in this state, or a company with an owner/user inspection agency, a commission as a special inspector of boilers and/or unfired pressure vessels shall be issued by the chief inspector to an inspector in the employ and supervision of such company provided the inspector has had the experience prescribed in chapter 70-79 RCW and complies with one of the following:

(1) Passed an examination covering the Washington state boilers and unfired pressure vessels law, chapters 70.79 RCW and 296-104 WAC; and holds a national board commission.

(2) Is certified by the American Petroleum Institute in accordance with API-510 for pressure vessel inspection, having passed an examination covering the Washington state boilers and unfired pressure vessels law, chapters 70.79 RCW and 296-104 WAC.

(3) Is certified by the American Petroleum Institute in accordance with API-510 for pressure vessel inspection, and specifically and temporarily in the direct employ of an owner/user inspection agency as set forth in RCW 70.79.130. This inspector shall be exempted from the state examination requirement in WAC 296-104-065(2).

(4) Is an inspector holding the national board authorized inspector commission and performs shop inspections only. This inspector shall be exempt from the exam requirement set forth in WAC 296-104-065(1).

[Statutory Authority: Chapter 70.79 RCW. WSR 18-23-092, § 296-104-065, filed 11/20/18, effective 1/1/19. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-065, filed 12/24/03, effective 1/24/04; WSR 01-24-061, § 296-104-065, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-065, filed 10/26/99, effective 11/26/99; WSR 96-21-081, § 296-104-065, filed 10/16/96, effective 11/16/96. Statutory Authority: RCW 70.79.040. WSR 94-21-002, § 296-104-065, filed 10/5/94, effective 11/5/94. Statutory Authority: RCW 70.79.030. WSR 78-03-057 (Order 78-3), § 296-104-065, filed 2/22/78; Order 74-37, § 296-104-065, filed 11/8/74; Part II, § 10, filed 3/23/60.]

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 (d) of this subsection.

(c) The required annual "certificate of inspection" will not be issued until both inspections listed in (a) and (b) of this subsection are completed and reported to the jurisdiction.

(d) 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 seven years or one-half the remaining life, whichever is less, 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) **Steam 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 an internal) - Biennially.

(4) **Hot water 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 an internal) - Every fourth year.

(c) Internally, for the waterside, not required for boilers using glycol, or adequately treated with corrosion inhibitor.

(5) **Hot water supply boilers** shall be inspected:

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

(b) Internally - None required.

(6) **Water heaters** shall be inspected:

(a) Externally - Biennially.

(b) Internally - None required.

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

(a) Externally - Biennially.

(b) Internally:

(i) When subject to corrosion and construction permits - Biennially, except that expansion tanks, air separators, ammonia storage tanks and hot water storage tanks may have internal inspections at the inspector's discretion. Vessels in an owner-user inspection program may follow intervals established by the NBIC or API-510.

(ii) Pulp or paper dryer rolls may be inspected on a five-year basis in accordance with TAPPI TIP 0402-16 revised 2011, provided the owner has established a written inspection program accepted by the inspector that meets the minimum requirements of TAPPI TIP 0402-16 revised 2011.

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

[Statutory Authority: Chapter 70.79 RCW. WSR 26-18-075 (Order 25-27), s 296-104-100, filed 9/1/26, effective 10/2/26; WSR 15-14-100, § 296-104-100, filed 6/30/15, effective 9/1/15. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and 2009 c 90. WSR 10-06-049, § 296-104-100, filed 2/24/10, effective 4/1/10. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 09-12-033, § 296-104-100, filed 5/27/09, effective 6/30/09; WSR 08-12-015, § 296-104-100, filed 5/27/08, effective 6/30/08. Statutory Authority: Chapter 70.79 RCW. WSR 04-21-069, § 296-104-100, filed 10/19/04, effective 1/1/05. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-100, filed 12/24/03, effective 1/24/04; WSR 01-24-061, § 296-104-100, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-100, filed 10/26/99, effective 11/26/99; WSR 98-22-024, § 296-104-100, filed 10/28/98, effective 11/28/98; WSR 95-19-058, § 296-104-100, filed 9/15/95, effective 10/16/95. Statutory Authority: RCW 70.79.040. WSR 94-21-002, § 296-104-100, filed 10/5/94, effective 11/5/94; Part III, § 1, filed 3/23/60.]

WAC 296-104-102 Inspection—What are the standards for in-service inspection? Where a conflict exists between the requirements of the standards listed below and this chapter, this chapter shall prevail. The duties of the in-service inspector do not include the installation's compliance with other standards and requirements (environmental, construction, electrical, undefined industrial standards, etc.), for which other regulatory agencies have authority and responsibility to oversee.

(1) The standard for inspection of nonnuclear boilers and unfired pressure vessels is the National Board Inspection Code (NBIC), current edition Part 2, excluding Section 6, Supplements 1, 5, 6, and 7 which may be used as nonmandatory guidelines.

(2) The standard for installation, in-service inspection, and repair of pressure relief devices is the National Board Inspection Code (NBIC), current edition Part 4, excluding Section 6, Supplement 1 which may be used as nonmandatory guidelines.

(3) The standard for inspection of historical steam boilers of riveted construction preserved, restored, or maintained for hobby or demonstration use, shall be Part 2, Section 6, Supplement 2 of the National Board Inspection Code (NBIC) current edition.

(4) The standard for inspection of nuclear items is ASME section XI. The applicable ASME Code edition and addenda shall be as specified in the owner in-service inspection program plan.

(5) Where a petroleum or chemical process industry owner/user inspection agency so chooses, the standard for inspection of unfired pressure vessels used by the owner shall be the API-510 Pressure Vessel Inspection Code, current edition. This code may be used on or after the date of issue.

(6) TAPPI TIP 0402-16, revised 2011 may be used for both pulp dryers and paper machine dryers when requested by the owner. When requested by the owner, this document becomes a requirement and not a guideline.

[Statutory Authority: Chapter 70.79 RCW. WSR 24-12-068, § 296-104-102, filed 6/4/24, effective 7/5/24; WSR 18-23-092, § 296-104-102, filed 11/20/18, effective 1/1/19; WSR 18-01-113, § 296-104-102, filed 12/19/17, effective 1/31/18; WSR 15-14-100, § 296-104-102, filed 6/30/15, effective 9/1/15; WSR 14-13-087, § 296-104-102, filed 6/17/14, effective 8/1/14. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 08-24-072, § 296-104-102, filed 12/1/08, effective 1/1/09; WSR 05-22-092, § 296-104-102, filed 11/1/05, effective 1/1/06. Statutory Authority: Chapter 70.79 RCW. WSR 04-21-069, § 296-104-102, filed 10/19/04, effective 1/1/05. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 01-24-061, § 296-104-102, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-102, filed 10/26/99, effective 11/26/99; WSR 98-22-024, § 296-104-102, filed 10/28/98, effective 11/28/98; WSR 96-21-081, § 296-104-102, filed 10/16/96, effective 11/16/96. Statutory Authority: RCW 70.79.040. WSR 94-21-002, § 296-104-102, filed 10/5/94, effective 11/5/94.]

WAC 296-104-105 Inspection—How much time is required for notification of an internal inspection? Seven days will be considered

sufficient notification. The owner or user shall prepare each boiler and unfired pressure vessel for internal inspection and shall prepare for and apply a hydrostatic pressure test whenever necessary on the date specified by the inspector.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 08-24-072, § 296-104-105, filed 12/1/08, effective 1/1/09. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-105, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-105, filed 9/15/95, effective 10/16/95; Part III, § 2, filed 3/23/60.]

WAC 296-104-110 Inspection—What will be done when boilers or unfired pressure vessels are deemed unsafe or defective? Upon inspection of a boiler or unfired pressure vessel or appurtenances, if an inspector finds hazardous conditions such that it is unsafe to operate under pressure, remedial action shall be initiated at once. A red tag indicating "unsafe - do not use" shall be attached to the principle operating control and the owner or user advised that further operation is prohibited until specified repairs or other action are taken. The chief inspector shall be notified immediately, followed by a report on the condition. Any certificate in force is considered suspended. When reinspection establishes that necessary repairs have been made or corrective action taken so that the boiler or unfired pressure vessel is safe to operate, a report of reinspection shall be submitted to the chief inspector. The certificate of inspection will then be reinstated or a new certificate issued as appropriate.

If other defects, but not unsafe conditions, are found, a routine inspection report containing a noncompliance report shall be submitted to the chief inspector. The owner or user shall be allowed to operate the object for a period as specified by the inspector so long as corrective action is completed in the allotted time.

[Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-110, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-110, filed 9/15/95, effective 10/16/95; Part III, § 3, filed 3/23/60.]

WAC 296-104-115 Inspection—What will be done when defective conditions are concealed by covering? If upon an external inspection there is evidence of a leak or crack, enough of the covering of the boiler or unfired pressure vessel shall be removed to satisfy the inspector in order to determine the safety of the boiler or unfired pressure vessel. If the covering cannot be removed at the time, the inspector may order the operation of the boiler or unfired pressure vessel stopped until such time as the covering can be removed and proper examination made.

[Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-115, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-115, filed 9/15/95, effective 10/16/95; Part III, § 4, filed 3/23/60.]

WAC 296-104-125 Inspection—What are the requirements for obtaining a certificate of inspection? Before a certificate of inspection as defined in RCW 70.79.290 is issued, a boiler or unfired pressure vessel must be inspected by an inspector and have all necessary permits. In addition, the owner or user shall pay the fees scheduled in WAC 296-104-700 directly to the chief inspector. The inspection process is not complete until the certificate of inspection is posted.

If the owner or user of each boiler or unfired pressure vessel required to be inspected refuses to allow an inspection to be made, or refuses to pay the above fee, the certificate of inspection shall be suspended by the chief inspector until the owner or user complies with the requirements.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, § 296-104-125, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-125, filed 10/26/99, effective 11/26/99; Part III, § 6, filed 3/23/60.]

WAC 296-104-130 Inspection—When are inspection certificates valid? An inspection certificate, issued in accordance with RCW 70.79.290, shall be valid until expiration unless some defect or condition affecting the safety of the boiler or unfired pressure vessel is disclosed or the conditions of RCW 70.79.300 apply.

When an agreement exists between the state and the city jurisdictions of Spokane or Seattle, the certificates for portable boilers and unfired pressure vessels will be considered valid.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 01-24-061, § 296-104-130, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-130, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-130, filed 9/15/95, effective 10/16/95; Part III, § 7, filed 3/23/60.]

WAC 296-104-135 Inspection—What are the requirements for restamping of boilers and unfired pressure vessels? When the stamping on a boiler or unfired pressure vessel becomes indistinct the inspector shall instruct the owner or user to have it restamped. Request for permission to restamp the boiler or unfired pressure vessel shall be made to the chief inspector and proof of the original stamping shall accompany the request. Restamping authorized by the chief inspector shall be done only in the presence of an inspector, and shall be identical with the original stamping except that it will not be required to restamp the code symbol. Notice of completion of such restamping shall be filed with the chief boiler inspector by the inspector who witnessed the restamping of the boiler or unfired pressure vessel together with a facsimile of the stamping applied.

[Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-135, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-135, filed 9/15/95, effective 10/16/95; Part III, § 8, filed 3/23/60.]

WAC 296-104-140 Inspection—How should a state number be assigned and applied? Upon completion of the installation, all boilers and unfired pressure vessels shall be inspected by an inspector as defined in WAC 296-104-100. At the time of this inspection, each boiler or unfired pressure vessel shall be marked with a serial number of the state of Washington followed by the letter "W." The marking should be conspicuously located and as close as possible to the boiler or unfired pressure vessel nameplate.

All boilers and unfired pressure vessels granted a Washington state special by the board of boiler rules shall have a serial number of the state of Washington followed by the letters "WS." This number shall be assigned by the chief inspector.

Washington numbers assigned by the chief inspector for historical boilers and pressure vessels from outside the jurisdiction shall be a serial number of the state of Washington followed by the letters "WH."

All rental boilers used in the state of Washington shall be marked with the serial number of the state of Washington followed by the letters "WR." This will indicate that the boiler is a rental unit.

The state of Washington markings, numbers and letters, referenced above, shall not be less than 5/16 inches in height and shall not be concealed by lagging or paint and shall be exposed at all times.

[Statutory Authority: Chapter 70.79 RCW. WSR 13-10-018, § 296-104-140, filed 4/23/13, effective 6/1/13; WSR 04-21-069, § 296-104-140, filed 10/19/04, effective 1/1/05. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, § 296-104-140, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-140, filed 10/26/99, effective 11/26/99; WSR 96-21-081, § 296-104-140, filed 10/16/96, effective 11/16/96; WSR 95-19-058, § 296-104-140, filed 9/15/95, effective 10/16/95; Order 73-1, § 296-104-140, filed 3/22/73; Part III, § 9, filed 3/23/60.]

WAC 296-104-145 Inspection—How are groups of vessels operating as a single unit classified? A group of unfired pressure vessels operating as a single unit such as the vessels in a refrigeration system, evaporators, ironers and paper machines shall have an individual state serial number marked on each boiler or unfired pressure vessel. The marking should be conspicuously located and as close as possible to the boiler or unfired pressure vessel nameplate. The certificate of inspection fee shall be as outlined in WAC 296-104-700, for each vessel of the system.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, § 296-104-145, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-145, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-145, filed 9/15/95, effective 10/16/95; Part III, § 10, filed 3/23/60.]

WAC 296-104-150 Inspection—How are unfired steam boilers classified? Unfired steam boilers as defined in WAC 296-104-010 operating at pressures of 50 psi or more shall be inspected as power boilers.

Unfired steam boilers operating at less than 50 psi shall be inspected as unfired pressure vessels.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, § 296-104-150, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-150, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-150, filed 9/15/95, effective 10/16/95; Part III, § 11, filed 3/23/60.]

WAC 296-104-151 Inspection—What are the requirements for rental boilers? Every rental boiler used in the state of Washington will have an internal inspection as defined in WAC 296-104-010 witnessed by an inspector once a year. An external inspection as defined in WAC 296-104-010 shall be witnessed by an inspector at each and every rental location before being placed into service. Rental boilers shall also meet the requirements of WAC 296-104-300.

A rental boiler, which has never been in rental service in the state of Washington, shall meet the requirements of WAC 296-104-273. Each inspection will be reported to the state of Washington in accordance with WAC 296-104-040, and a copy of this report will be posted on the rental boiler.

It is the responsibility of the rental boiler owner to arrange for all required inspections.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, § 296-104-151, filed 11/13/02, effective 12/14/02; WSR 01-24-061, § 296-104-151, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-151, filed 10/26/99, effective 11/26/99; WSR 96-21-081, § 296-104-151, filed 10/16/96, effective 11/16/96.]

WAC 296-104-155 Inspection—What preparations are necessary prior to internal inspections? The owner or user has the responsibility to prepare a pressure-retaining item for internal inspection. Requirements of occupational safety and health regulations (federal, state, local, or other), as well as the owner or user's own safety program and the safety program of the inspector's employer are applicable. In the absence of such rules, prudent and generally accepted engineering safety procedures satisfactory to the inspector shall be employed by the owner or user.

The owner or user shall prepare a boiler for internal inspection in the following manner or as required by the inspector:

(1) Water shall be drawn off and the boiler thoroughly washed (when a boiler is being prepared for internal inspection, the water should not be withdrawn until it has been sufficiently cooled).

(2) All manhole and handhole plates and wash-out plugs and water column connections shall be removed, the furnace and combustion chambers thoroughly cooled and cleaned.

(3) All grates of internally fired boilers shall be removed.

(4) At each annual inspection brickwork shall be removed as required by the inspector in order to determine the condition of the boiler headers, drums, furnace, supports, or other parts.

(5) The steam gauge shall be removed for testing or evidence of testing shown.

(6) Any leakage of steam or water into the boiler shall be prevented by either disconnecting the pipe or block valve at the most convenient point or installing isolation blinds. The owner or user must ensure that an effective energy isolation program (lock out and/or tag out) is in place and in effect that will prevent the unexpected energizing, start up, or release of stored energy.

The inspector shall determine that a safe atmosphere exists before entering the boiler or pressure-retaining item.

(7) The low water cutout shall be disassembled to such a degree as the inspector shall require.

(8) Pressure relief devices shall be removed and tested if required by the inspector.

Unfired pressure vessels shall be prepared for internal inspection to the extent deemed necessary by the inspector.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 08-12-015, § 296-104-155, filed 5/27/08, effective 6/30/08. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, § 296-104-155, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-155, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-155, filed 9/15/95, effective 10/16/95; Part III, § 12, filed 3/23/60.]

WAC 296-104-160 Inspection—What happens if a boiler or unfired pressure vessel is improperly prepared for inspection? If a boiler or unfired pressure vessel has not been properly prepared for an internal inspection, or the owner or user fails to comply with the requirements for hydrostatic test as set forth in these rules, the inspector may decline to make the inspection or test and the certificate of inspection shall be withheld until the owner or user complies with the requirements.

[Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-160, filed 10/26/99, effective 11/26/99; WSR 95-19-058, § 296-104-160, filed 9/15/95, effective 10/16/95; Part III, § 13, filed 3/23/60.]

WAC 296-104-165 Inspection—When should coverings be removed for inspection? If the boiler or unfired pressure vessel is jacketed such that the longitudinal seams of shells, drums, or domes cannot be seen, or if pertinent information cannot be determined by other means, the following may be ordered by the inspector: Enough of the jacketing, setting wall, or other form of casing or housing shall be removed so that information necessary to determine the safety of the boiler or unfired pressure vessel can be obtained to the satisfaction of the inspector.

[Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-165, filed 10/26/99, effective 11/26/99; WSR 95-19-058, §

296-104-165, filed 9/15/95, effective 10/16/95; Part III, § 14, filed 3/23/60.]

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 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.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and 2009 c 90. WSR 10-06-049, § 296-104-170, filed 2/24/10, effective 4/1/10. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 06-24-042, § 296-104-170, filed 11/30/06, effective 1/1/07. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, § 296-104-170, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-170, filed 10/26/99, effective 11/26/99; WSR 96-21-081, § 296-104-170, filed 10/16/96, effective 11/16/96. Statutory Authority: RCW 70.79.040. WSR 90-20-029, § 296-104-170, filed 9/24/90, effective 10/25/90. Statutory Authority: RCW 70.79.030. WSR 78-03-057 (Order 78-3), § 296-104-170, filed 2/22/78; Part III, § 15, filed 3/23/60.]

WAC 296-104-180 Inspection—How are radioactive systems inspected? An alternative means of inspection is allowed when a pressure vessel has radioactive contamination that would not allow entering for visual inspection. The inspector and owner shall work out a program of nondestructive examination that shall ascertain the condition of the vessel to assure its integrity.

[Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-180, filed 10/28/98, effective 11/28/98.]

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, current edition, Sections I, III, IV, VIII, Division 1, 2, 3, X, XII, XIII;

(2) ASME PVHO-1 Safety Standard for Pressure Vessels for Human Occupancy, current edition; 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 12 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 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.

[Statutory Authority: Chapter 70.79 RCW. WSR 24-12-068, § 296-104-200, filed 6/4/24, effective 7/5/24; WSR 13-10-018, § 296-104-200, filed 4/23/13, effective 6/1/13. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 09-12-033, § 296-104-200, filed 5/27/09, effective 6/30/09; WSR 08-24-072, § 296-104-200, filed 12/1/08, effective 1/1/09; WSR 08-12-015, § 296-104-200, filed 5/27/08, effective 6/30/08; WSR 06-24-042, § 296-104-200, filed 11/30/06, effective 1/1/07; WSR 05-22-092, § 296-104-200, filed 11/1/05, effective 1/1/06. Statutory Authority: Chapter 70.79 RCW. WSR 04-21-069, § 296-104-200, filed 10/19/04, effective 1/1/05. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, § 296-104-200, filed 11/13/02, effective 12/14/02; WSR 01-24-061, § 296-104-200, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-200, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-200, filed 10/28/98, effective 11/28/98; WSR 97-20-109, § 296-104-200, filed 9/30/97, effective 10/31/97; WSR 96-21-081, § 296-104-200, filed 10/16/96, effective 11/16/96. Statutory Authority: RCW 70.79.040. WSR 93-12-014, § 296-104-200, filed 5/21/93, effective 6/21/93; WSR 92-11-070, § 296-104-200, filed 5/20/92, effective 6/20/92; WSR 91-11-107, § 296-104-200, filed 5/22/91, effective 6/22/91; WSR 90-04-009, § 296-104-200, filed 1/26/90, effective 2/26/90. Statutory Authority: RCW 70.79.040 and 70.79.050. WSR 86-01-088 (Order 85-26), § 296-104-200, filed 12/19/85. Statutory Authority: RCW 70.79.030 and 70.79.330. WSR 84-11-016 (Order 84-09), § 296-104-200, filed 5/10/84; WSR 82-24-025 (Order 82-36), § 296-104-200, filed 11/23/82, effective 1/1/83. Statutory Authority: RCW 70.79.030. WSR 82-05-003 (Order 82-2), § 296-104-200, filed 2/4/82; WSR 81-12-012 (Order 81-10), § 296-104-200, filed 5/28/81; WSR 81-01-114 (Order 80-28), § 296-104-200, filed 12/24/80; WSR 80-05-065 (Order 80-7), § 296-104-200, filed 4/23/80; WSR 79-05-054 (Order 79-7), § 296-104-200, filed 4/30/79; WSR 78-10-096 (Order 78-19), § 296-104-200, filed 10/3/78; Order 77-23, § 296-104-200, filed 11/8/77; Order 77-9, § 296-104-200, filed 5/26/77; Order 75-35, § 296-104-200, filed 10/29/75; Order 74-37, § 296-104-200, filed 11/8/74; Order 73-1, § 296-104-200, filed 3/22/73; Order 72-17, § 296-104-200, filed 9/28/72; Order 72-11, § 296-104-200, filed 7/7/72; Part IV, § 1, filed 3/23/60.]

WAC 296-104-205 Construction—What are the requirements for nonstandard new construction? Nonstandard boilers and unfired pressure vessels that are not to be constructed to the codes adopted in WAC 296-104-200 may be treated as special designs at the discretion of the board. Nonstandard construction shall not be permitted to avoid standard construction.

[Statutory Authority: Chapter 70.79 RCW. WSR 13-10-018, § 296-104-205, filed 4/23/13, effective 6/1/13. Statutory Authority: RCW 70.79.030,

70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 09-12-033, § 296-104-205, filed 5/27/09, effective 6/30/09. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 01-24-061, § 296-104-205, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-205, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 96-21-081, § 296-104-205, filed 10/16/96, effective 11/16/96; Part IV, § 2, filed 3/23/60.]

WAC 296-104-210 Construction—What are the requirements for construction of boilers and unfired pressure vessels of special design? Boilers and unfired pressure vessels of special design require a special certificate granted by the board of boiler rules. At a minimum the following information shall be supplied to obtain board approval for special designs: Construction drawings, design calculations, material specifications, and a written evaluation by a professional engineer knowledgeable with boilers and unfired pressure vessels. Upon board approval a Washington special number will be assigned by the chief inspector. The installation will be subject to the regular inspections required by WAC 296-104-100 and any additional conditions as required by the board.

[Statutory Authority: Chapter 70.79 RCW. WSR 13-10-018, § 296-104-210, filed 4/23/13, effective 6/1/13. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 05-22-092, § 296-104-210, filed 11/1/05, effective 1/1/06. Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-210, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 96-21-081, § 296-104-210, filed 10/16/96, effective 11/16/96. Statutory Authority: RCW 70.79.040 and 70.79.050. WSR 86-07-064 (Order 86-02), § 296-104-210, filed 3/19/86; Order 73-1, § 296-104-210, filed 3/22/73; Part IV, § 3, filed 3/23/60.]

WAC 296-104-215 Construction—What are the requirements to use nonstandard boilers and unfired pressure vessels other than historical boilers and pressure vessels? Nonstandard boilers and unfired pressure vessels, other than historical boilers and pressure vessels may be used provided they have not been moved from their original setting since January 1, 1952.

[Statutory Authority: Chapter 70.79 RCW. WSR 13-10-018, § 296-104-215, filed 4/23/13, effective 6/1/13. Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-215, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 97-20-109, § 296-104-215, filed 9/30/97, effective 10/31/97; WSR 96-21-081, § 296-104-215, filed 10/16/96, effective 11/16/96; Part IV, § 4, filed 3/23/60.]

WAC 296-104-220 Construction—What are the requirements to use nonstandard second hand boilers and unfired pressure vessels, other than historical boilers and pressure vessels? Nonstandard second hand

boilers and unfired pressure vessels constructed after January 1, 1952, cannot be used in this state without prior approval of the board of boiler rules. At a minimum the following information shall be supplied to obtain board approvals: Construction drawings, photographs, operating and inspection history, design calculations, an engineer's evaluation of the design and present condition and any additional requirements of the board.

[Statutory Authority: Chapter 70.79 RCW. WSR 13-10-018, § 296-104-220, filed 4/23/13, effective 6/1/13. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 05-22-092, § 296-104-220, filed 11/1/05, effective 1/1/06. Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-220, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 96-21-081, § 296-104-220, filed 10/16/96, effective 11/16/96. Statutory Authority: RCW 70.79.240. WSR 88-01-064 (Order 87-25), § 296-104-220, filed 12/17/87; Part IV, § 5, filed 3/23/60.]

WAC 296-104-226 Construction—What are the requirements to use historical boilers and pressure vessels? Historical boilers and pressure vessels not previously registered may be used in this state provided they meet all the requirements for historical boilers in the National Board Inspection Code and have prior approval of the board of boiler rules.

Historical boilers and pressure vessels from outside the jurisdiction can be used subject to the approval of the chief inspector, provided they have been registered in another national board jurisdiction and have been inspected and maintained in accordance with all requirements for historical boilers in the National Board Inspection Code.

The object will be subject to regular periodic inspections as required in WAC 296-104-100.

[Statutory Authority: Chapter 70.79 RCW. WSR 13-10-018, § 296-104-226, filed 4/23/13, effective 6/1/13.]

WAC 296-104-245 Construction—Combustible fluid heaters. Steam or hot water combustible fluid heaters shall be so designed and constructed that in the event of failure of any part, the combustible fluid cannot enter the boiler water.

[Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 96-21-081, § 296-104-245, filed 10/16/96, effective 11/16/96. Statutory Authority: RCW 70.79.030. WSR 78-03-057 (Order 78-3), § 296-104-245, filed 2/22/78; Part IV, § 10, filed 3/23/60.]

WAC 296-104-251 Installation—What are the standards for installation for nonnuclear boiler and pressure vessels? Where a conflict exists between the requirements of the standards listed below and this chapter, this chapter shall prevail. The duties of the in-service inspector do not include the installation's compliance with other standards and requirements (environmental, construction, electrical, unde-

fined industrial standards, etc.), for which other regulatory agencies have authority and responsibility to oversee.

The standard for installation of nonnuclear boilers, unfired pressure vessels, and safety devices is the National Board Inspection Code (NBIC), current edition Part 1, excluding Section 5 and Section 6, Supplements 1, 2, and 5 which may be used as nonmandatory guidelines.

[Statutory Authority: Chapter 70.79 RCW. WSR 18-23-092, § 296-104-251, filed 11/20/18, effective 1/1/19.]

WAC 296-104-255 Installation—What are the required clearances for boilers? When boilers are replaced or new boilers installed in either existing or new buildings, a minimum top clearance as specified below shall be provided between the top of boiler proper and ceiling. Sufficient access must be provided for inspection, maintenance, operations, and repair. Required clearances shall be:

(1) Minimum clearances at sides, front, and back wall shall be the manufacturers' service clearance recommendations. If no recommendations are stated by the manufacturer, then 18 inches shall be the minimum clearance.

(2) Minimum clearance from manhole openings and any wall, ceiling, or piping that will prevent a person from entering the boiler shall be. . . . . 5 feet.

(3) Minimum clearance on top of power boilers having a steam generating capacity in excess of 5,000 pounds per hour or having a heat surface in excess of 1,000 sq. ft. or input in excess of 5,000,000 btu per hour shall be. . . . . 7 feet.

(4) Minimum clearance on top of low pressure heating boilers which exceed any one of the following limits: 5,000,000 btu input; 5,000 lbs. steam per hour capacity or 1,000 sq. ft. heating surface; and power boilers which do not exceed any of the following limits: 5,000,000 btu input; 5,000 lbs. steam per hour capacity or 1,000 sq. ft. heating surface shall be. . . . . 3 feet.

(5) Minimum clearance on top of boilers which do not exceed the above limits and miniature boilers shall be. . . . . 2 feet.

[Statutory Authority: Chapter 70.79 RCW. WSR 24-12-068, § 296-104-255, filed 6/4/24, effective 7/5/24. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 06-24-042, § 296-104-255, filed 11/30/06, effective 1/1/07. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 96-21-081, § 296-104-255, filed 10/16/96, effective 11/16/96; Part IV, § 12, filed 3/23/60.]

WAC 296-104-260 Installation—What are the required clearances for unfired pressure vessels? When unfired pressure vessels are replaced or new vessels are installed in either existing or new buildings, clearances shall be provided to allow access for safe operation, inspection, maintenance, and/or repair. Passageways around all sides of pressure vessels shall have an unobstructed width of not less than 18 inches. Exception: Unfired pressure vessels may be installed with a side clearance of less than 18 inches if the lesser clearance does not violate the manufacturer's installation instructions or inhibit inspection, maintenance, and/or repair. Any exception shall be notated

in object comments in the jurisdictional database. All unfired pressure vessels having a manhole shall have five foot clearance at the manhole opening to allow an individual to have safe access to the inside of the vessel to perform inspection and/or maintenance.

[Statutory Authority: Chapter 70.79 RCW. WSR 24-12-068, § 296-104-260, filed 6/4/24, effective 7/5/24. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, amended and recodified § 296-104-260, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 96-21-081, § 296-104-273, filed 10/16/96, effective 11/16/96.]

WAC 296-104-265 Installation—What are the requirements for unfired pressure vessels installed underground? Unfired pressure vessels installed underground shall comply with the following requirements:

(1) A pit with concrete or masonry sides and floor shall enclose the underground portion of the unfired pressure vessel.

(2) Pit covers shall be removable.

(3) Clearances shall be as required by WAC 296-104-260.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-265, filed 12/24/03, effective 1/24/04; WSR 02-23-036, recodified as § 296-104-265, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 97-20-109, § 296-104-320, filed 9/30/97, effective 10/31/97; Part V, § 5, filed 3/23/60.]

WAC 296-104-271 Installation—How does an owner, user, or installer obtain a variance from clearances? Variances from WAC 296-104-255, 296-104-260, and 296-104-265 may be requested. The variance request shall be in writing on an appropriate form approved by the chief inspector, and shall specify how equivalent safety is to be maintained. The chief inspector may grant the variance provided that safety and accessibility for inspections are acceptable.

[Statutory Authority: Chapter 70.79 RCW. WSR 14-13-087, § 296-104-271, filed 6/17/14, effective 8/1/14. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, § 296-104-271, filed 11/13/02, effective 12/14/02.]

WAC 296-104-273 Installation—What inspections are required for reinstalled standard boilers or unfired pressure vessels? When a stationary standard boiler or unfired pressure vessel is moved and reinstalled it must be inspected and documented on the inspection report by an inspector. The following will be required:

(1) An installation permit must be submitted in accordance with WAC 296-104-020.

(2) The fittings and appurtenances must comply with the latest codes adopted in WAC 296-104-200. For automatically fired boilers,

fuel controls and other limit devices as listed in WAC 296-104-303 shall be provided.

(3) For any boiler or unfired pressure vessel not currently registered with the department, the following are required unless waived by the inspector:

(a) A hydrostatic or pressure test as prescribed in the original code of construction.

(b) An internal inspection.

(c) An operational test.

(d) Any repairs deemed necessary.

(e) A complete history of inspection, operation and repairs/alterations.

(f) Additional examination or nondestructive testing.

(g) A written evaluation by a professional engineer knowledgeable with boilers and pressure vessels, an ASME certificate holder, or a National Board R certificate holder.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 09-12-033, § 296-104-273, filed 5/27/09, effective 6/30/09. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, recodified as § 296-104-273, filed 11/13/02, effective 12/14/02; WSR 01-24-061, § 296-104-256, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 96-21-081, § 296-104-256, filed 10/16/96, effective 11/16/96.]

WAC 296-104-295 Installation—What are the requirements for an explosion door? Provide substantial deflectors to divert the blast when explosion doors are located within seven feet of the firing floor or an operating platform.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, recodified as § 296-104-295, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 97-20-109, § 296-104-270, filed 9/30/97, effective 10/31/97; Part IV, § 15, filed 3/23/60.]

WAC 296-104-300 Installation—What control and limit devices are required on automatically fired boilers prior to June 1989? All automatically fired steam, vapor, or hot water boilers except boilers having a constant attendant who has no other duties while the boiler is in operation, shall be equipped with:

(1) An automatic low-water fuel cutoff; and

(2) An automatic water feeding device.

(3) All devices shall be designed so that they may be readily tested at frequent intervals.

[Statutory Authority: Chapter 70.79 RCW. WSR 04-21-069, § 296-104-300, filed 10/19/04, effective 1/1/05. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-300, filed 12/24/03, effective 1/24/04; WSR 02-23-036, recodified as § 296-104-300, filed 11/13/02, effective 12/14/02; WSR 01-24-061, § 296-104-265, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030, 70.79.040 and

chapter 70.79 RCW. WSR 00-21-024, § 296-104-265, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-265, filed 10/28/98, effective 11/28/98; WSR 97-20-109, § 296-104-265, filed 9/30/97, effective 10/31/97. Statutory Authority: RCW 70.79.240. WSR 88-01-064 (Order 87-25), § 296-104-265, filed 12/17/87; Part IV, § 14, filed 3/23/60.]

WAC 296-104-301 Installation—What control and limit devices are required on automatically fired power boilers after June 1989? In addition to those requirements listed in WAC 296-104-300, the following are also required:

(1) All steam power boilers shall be equipped with:

(a) Two high steam pressure limit controls, the highest of which shall be provided with a manual reset.

(b) Two low-water fuel cutoffs, one of which shall be provided with a manual reset device and independent of the feed water controller.

(2) Coil type flash steam boilers may use two high-temperature limit controls, one of which shall have a manual reset. This is instead of the low-water fuel cutoff.

(3) All high temperature water (greater than 250°F) power boilers shall be equipped with:

(a) Two high-temperature limit controls, the highest of which shall be provided with a manual reset.

(b) Two low-water fuel cutoffs, one of which shall be provided with a manual reset device and independent of the feed water controller.

(4) All controls and limit devices shall be tested or verified by means acceptable by the jurisdiction.

(5) For installations after December 2004 - All automatically fired power boilers with input greater than 400,000 Btu/hr, including electric boilers with input greater than 117 kW, shall have a manually operated remote shutdown switch or circuit breaker. When an existing remote shutdown switch exists, all boilers may be connected to the existing switch to allow for remote shutdown of all boilers in the room. When an additional boiler is added to the room where an existing remote shutdown switch does not exist, all boilers meeting the input requirements should be added to the new remote shutdown switch. Activation of the emergency shutdown switch or circuit breaker shall immediately shut off the fuel or energy supply and initiate the boiler shutdown sequence in accordance with manufacturer's recommendations where applicable. The shutdown switch should be located just outside the boiler room door and marked for easy identification. Consideration should be given to the type and location of the switch to safeguard against tampering. If the boiler room door is on the building exterior, the switch should be located just inside the door. If there is more than one door to the boiler room, there should be a switch located at each door.

[Statutory Authority: Chapter 70.79 RCW. WSR 20-06-058, § 296-104-301, filed 3/3/20, effective 4/3/20; WSR 04-21-069, § 296-104-301, filed 10/19/04, effective 1/1/05.]

WAC 296-104-302 Installation—What control and limit devices are required on automatically fired hot water heating, hot water supply boilers, coil type hot water heating boilers, low pressure steam boilers, and HLW potable water heaters after June 1989? In addition to those requirements listed in WAC 296-104-300, the following are also required:

(1) All automatically fired hot water heating, hot water supply boilers shall be equipped with:

(a) Two high temperature limit controls, the highest of which shall be provided with a manual reset when heat input is greater than 400,000 Btu/hr (117 kW).

(b) One low-water fuel cutoff with a manual reset device and independent of the feed water controller.

(c) For installations after December 2004, a means shall be provided for testing the operation of hot water heating boiler low-water fuel cutoff(s) without resorting to draining the entire system. Such means shall not render the device(s) inoperable. If the means temporarily isolates the device from the boiler during testing, it shall automatically return to its normal position.

(2) For coil type hot water boilers with heat input greater than 400,000 Btu/hr (117 kW) a low-water flow limit control installed in the circulating water line may be used instead of a low-water fuel cutoff when forced circulation is required to prevent overheating of the tubes.

(3) Automatically fired low pressure steam boilers shall be equipped with:

(a) Two high steam pressure limit controls, the highest of which shall be provided with a manual reset.

(b) Two low-water fuel cutoffs, one of which shall be provided with a manual reset device and independent of the feed water controller.

(4) HLW potable water heaters:

(a) Two temperature limit controls, one being a high-limit temperature control that will automatically cut off the fuel supply.

(b) Heaters with input greater than 400,000 Btu/hr (117 kW) installed after January 1, 2018, shall comply with all items in subsection (6) of this section.

(5) All controls and limit devices shall be tested or verified by means acceptable by the jurisdiction.

(6) For installations after December 2004, all automatically fired boilers with input greater than 400,000 Btu/hr, including electric boilers with input greater than 117 kW, shall have a manually operated remote shutdown switch or circuit breaker. When an existing remote shutdown switch exists, all boilers may be connected to the existing switch to allow for the remote shutdown of all boilers in the room. When an additional boiler is added to the room where an existing remote shutdown switch does not exist, all boilers meeting the input requirements should be added to the new remote shutdown switch. Activation of the emergency shutdown switch or circuit breaker shall immediately shut off the fuel or energy supply and initiate the boiler shutdown sequence in accordance with manufacturer's recommendations where applicable. The shutdown switch should be located just outside the boiler room door and marked for easy identification. Consideration should be given to the type and location of the switch to safeguard against tampering. If the boiler room door is on the building exterior, the switch should be located just inside the door. If there is

more than one door to the boiler room, there should be a switch located at each door.

[Statutory Authority: Chapter 70.79 RCW. WSR 20-06-058, § 296-104-302, filed 3/3/20, effective 4/3/20. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 08-24-072, § 296-104-302, filed 12/1/08, effective 1/1/09; WSR 05-22-092, § 296-104-302, filed 11/1/05, effective 1/1/06. Statutory Authority: Chapter 70.79 RCW. WSR 04-21-069, § 296-104-302, filed 10/19/04, effective 1/1/05.]

WAC 296-104-303 Installation—What fuel controls are required on automatically fired boilers after December 1998? In addition to those requirements listed in WAC 296-104-301 and 296-104-302, the following are required with regard to installations or refits of gas, oil, or combinations of gas or oil:

(1) All boilers installed or refitted after December 1998, shall be equipped with suitable primary (flame safeguards) safety controls, safety limit switches, and burners or electrical elements as required by a nationally or internationally recognized standard.

(2) The symbol of the certifying organization that has investigated such equipment as having complied with nationally or internationally recognized standard shall be affixed to the equipment and shall be considered evidence that the unit was manufactured in accordance with that standard. A certifying organization is one that provides uniform testing, examination, and listing procedures under established, nationally or internationally recognized standards, and that is acceptable to the authorities having jurisdiction.

(3) These devices shall be installed in accordance with jurisdictional requirements, manufacturer's recommendations, and/or industry standards as applicable.

[Statutory Authority: Chapter 70.79 RCW. WSR 20-06-058, § 296-104-303, filed 3/3/20, effective 4/3/20; WSR 15-14-100, § 296-104-303, filed 6/30/15, effective 9/1/15; WSR 13-10-018, § 296-104-303, filed 4/23/13, effective 6/1/13; WSR 04-21-069, § 296-104-303, filed 10/19/04, effective 1/1/05.]

WAC 296-104-307 Installation—When are platforms around boilers required? Provide platforms allowing safe access to each boiler, when the controls, valves, manholes, or casing openings are over ten feet above the floor.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-307, filed 12/24/03, effective 1/24/04; WSR 02-23-036, recodified as § 296-104-307, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 97-20-109, § 296-104-300, filed 9/30/97, effective 10/31/97; Part V, § 1, filed 3/23/60.]

WAC 296-104-316 Installation—What safety pressure relief devices are required on boilers and unfired pressure vessels? All boilers and unfired pressure vessels, including pressure retaining items lis-

ted in RCW 70.79.090(5), shall be safeguarded by safety pressure relief devices as specified in the applicable ASME Code or recognized standard. The pressure relieving device set pressure shall not exceed the boiler's or the unfired pressure vessel's maximum allowable working pressure unless allowed by the code of construction. These pressure relieving devices shall be installed per the applicable ASME Code or manufacturer's requirements. The outlet of the relief valve shall be run full size to a safe place and shall not induce undue stress on the valve. As an alternative they may be safeguarded by a fail safe pressure relief control system that is evaluated by a professional engineer knowledgeable with boilers and pressure vessels and accepted by the chief inspector.

[Statutory Authority: Chapter 70.79 RCW. WSR 13-10-018, § 296-104-316, filed 4/23/13, effective 6/1/13. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-316, filed 12/24/03, effective 1/24/04; WSR 02-23-036, recodified as § 296-104-316, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-307, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-307, filed 10/28/98, effective 11/28/98.]

WAC 296-104-320 Installation—Where should the discharge from safety pressure relief devices, blow offs and drains be directed? Discharge from safety pressure relief devices, blow offs and drains shall be directed to a safe point of discharge to prevent injury to personnel and property. Discharge lines from boilers, accumulators, or headers, with a capacity of 1,000 pounds of steam per hour or more, shall be directed outside of the building.

For water heater discharge lines as defined in WAC 296-104-010 that do not exceed 120 gallons or 200,000 Btu/hr input the following requirements shall be followed:

The discharge piping serving a temperature relief valve, pressure relief valve, or combination of both shall have no valves, or obstructions, or means of isolation and be provided with the following:

(1) Equal to the size of the valve outlet and shall discharge full size to the flood level of the area receiving the discharge and pointing down.

(2) Materials shall be rated at not less than the operating temperature of the system and approved for such use.

(3) Discharge pipe shall discharge independently by gravity through an air gap into the drainage system or outside of the building with the end of the pipe not exceeding 2 feet (610 mm) and not less than 6 inches (152 mm) above the ground and pointing downwards.

(4) Discharge in such a manner that does not cause personal injury or structural damage.

(5) No part of such discharge pipe shall be trapped or subject to freezing.

(6) The terminal end of the pipe shall not be threaded.

(7) Discharge from a relief valve into a water heater pan shall be prohibited.

Exception: Where no drainage was provided, replacement water heating equipment shall only be required to provide a drain pointing downward from the relief valve to extend between 2 feet (610 mm) and 6 inches (152 mm) from the floor. No additional floor drain need be provided.

[Statutory Authority: Chapter 70.79 RCW. WSR 26-18-075 (Order 25-27), s 296-104-320, filed 9/1/26, effective 10/2/26; WSR 18-23-092, § 296-104-320, filed 11/20/18, effective 1/1/19. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-320, filed 12/24/03, effective 1/24/04; WSR 02-23-036, recodified as § 296-104-320, filed 11/13/02, effective 12/14/02. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-310, filed 10/28/98, effective 11/28/98; WSR 97-20-109, § 296-104-310, filed 9/30/97, effective 10/31/97; Part V, § 3, filed 3/23/60.]

WAC 296-104-325 Installation—What are the requirements for boiler and unfired pressure vessel supports? Each boiler or unfired pressure vessel shall be supported by masonry or structural supports of sufficient strength and rigidity to safely support the vessel and its contents. There shall be no excessive vibration in either the vessel or its connecting piping.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-325, filed 12/24/03, effective 1/24/04. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 97-20-109, § 296-104-325, filed 9/30/97, effective 10/31/97; Part V, § 6, filed 3/23/60.]

WAC 296-104-405 Existing installation—How can the maximum allowable working pressure be established for nonstandard boilers or unfired pressure vessels? The maximum allowable working pressure MAWP of cylindrical components under internal pressure shall be established as follows:

(1) For nonstandard steel low pressure steam heating boilers the MAWP shall be computed from the formula in subsection (5) of this section not exceeding 15 psi steam.

(2) For nonstandard steel low pressure water heating boilers the MAWP shall be computed from the formula in subsection (5) of this section not exceeding 30 psi.

(3) For nonstandard cast iron low pressure steam heating boilers the MAWP shall not exceed 15 psi steam.

(4) For nonstandard cast iron low pressure water heating boilers the MAWP shall not exceed 30 psi.

(5) For boilers and unfired pressure vessels not listed above, where the original code of construction is unknown, the following formula will be used.

$$\frac{TS \times t \times E}{R \times FS} = MAWP$$

TS = Tensile Strength in psi as given in ASME Code, when material cannot be identified use 55,000 for steel and 45,000 for wrought iron.

t = thickness in inches of the thinnest part determined by actual measurement.

E	=	efficiency of longitudinal joint or ligament, whichever is the least, determined by the rules and formula in the ASME Code. When construction methods are not known welded joint efficiency will be 70%.
R	=	radius of largest course in inches.
FS	=	Factor of Safety, for boilers shall be a minimum of 5. For boilers with a longitudinal lap seam it shall be a minimum 8. Boilers with a longitudinal lap seam, unless granted a special permit, may only be used at a maximum of 15 psi provided they have passed inspection. The minimum for unfired pressure vessels shall be 4 when less than 20 years old, 4 1/2 when over 20 years old.

[Statutory Authority: Chapter 70.79 RCW. WSR 04-21-069, § 296-104-405, filed 10/19/04, effective 1/1/05. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-405, filed 12/24/03, effective 1/24/04. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-405, filed 10/28/98, effective 11/28/98; WSR 97-20-109, § 296-104-405, filed 9/30/97, effective 10/31/97; Part VI, § 2, filed 3/23/60.]

WAC 296-104-450 Operation—What are the requirements for operation of boilers? (1) Designation of operators: Owners of boilers as defined in this chapter shall designate an operator to discharge the duties of operation and maintenance of such boilers.

(2) Maintenance requirements: Owners of boilers shall, as a minimum, maintain such boilers in accordance with manufacturer's specifications.

(3) Operational requirements: Owners of boilers shall perform periodic checks and operational maintenance of such boilers to ensure the mechanical integrity of the boiler. Frequency of checks and operational maintenance shall be determined by the manufacturer of the boiler and this chapter. Depending on the size and use of a boiler, checks and maintenance must be made at designated intervals by the operator. The designated interval and checks shall be as prescribed by, but need not be limited to, the manufacturer's specification(s) and ASME CSD 1 (Controls and Safety Devices for Automatically Fired Boilers). Operators responsible for the maintenance and operation of boilers shall have the skills necessary to perform those tasks at the level to ensure the safe operation of regulated boilers. It is recommended that all operators of boilers obtain training in the proper operation and maintenance of such boilers; training may be obtained through community colleges, mechanical insurers, trade associations, trade unions, owners, and manufacturers and distributors of such devices.

(4) Recordkeeping: Is required for power boilers with a energy input greater than 500,000 Btu/hr (146.5 kW) and low pressure steam and hydronic heating boilers with a energy input of greater than 2,500,000 Btu/hr (732 kW). The owner shall maintain records of operation and maintenance of boilers for a period of no less than three years from the date of recording and records must be available upon request of the inspector. Such records shall include, but not be limited to, the following information:

(a) Maintenance history of the boiler.

(b) Operational check and maintenance logs that are secured in such a way to prevent revisions, additions, or deletions to entries which have been previously entered.

(c) Permits, licenses, and other regulatory compliance information.

(d) Problems and operational disruptions due to failure of the boiler or a boiler accessory.

(5) This section takes effect April 2, 2027.

[Statutory Authority: Chapter 70.79 RCW. WSR 26-18-075 (Order 25-27), s 296-104-450, filed 9/1/26, effective 10/2/26.]

WAC 296-104-502 Repairs—What is the standard for nonnuclear repairs and alterations? The standard for repairs/alterations is:

(1) National Board Inspection Code (NBIC), current edition Part 3, excluding Section 6, Supplements 1, 5, 6, and 7 which may be used as nonmandatory guidelines.

(2) The standard for repair of historical boilers or riveted construction preserved, restored, or maintained for hobby or demonstration use, shall be Part 3, Section 6, Supplement 2 of the National Board Inspection Code (NBIC) current edition.

[Statutory Authority: Chapter 70.79 RCW. WSR 18-23-092, § 296-104-502, filed 11/20/18, effective 1/1/19; WSR 18-01-113, § 296-104-502, filed 12/19/17, effective 1/31/18; WSR 14-13-087, § 296-104-502, filed 6/17/14, effective 8/1/14. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 08-24-072, § 296-104-502, filed 12/1/08, effective 1/1/09; WSR 06-24-042, § 296-104-502, filed 11/30/06, effective 1/1/07. Statutory Authority: Chapter 70.79 RCW. WSR 04-21-069, § 296-104-502, filed 10/19/04, effective 1/1/05. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 02-23-036, § 296-104-502, filed 11/13/02, effective 12/14/02; WSR 01-24-061, § 296-104-502, filed 11/30/01, effective 12/31/01. Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-502, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-22-026, § 296-104-502, filed 10/26/99, effective 11/26/99; WSR 98-22-024, § 296-104-502, filed 10/28/98, effective 11/28/98. Statutory Authority: RCW 70.79.040. WSR 94-21-002, § 296-104-502, filed 10/5/94, effective 11/5/94.]

WAC 296-104-503 Repairs—What are the requirements for nonnuclear boilers and unfired pressure vessel repairs and alterations? Repairs and alterations to standard nonnuclear boilers and pressure vessels shall be made in accordance with the rules of the National Board Inspection Code (NBIC), Part 3 as adopted in WAC 296-104-502(1).

Repairs and alterations shall be made by an organization in possession of a valid Certificate of Authorization for use of the national board "R" symbol stamp. The national board "R" symbol stamp organization shall comply with the following jurisdictional requirements:

(1) Assign and submit a current "controlled copy" of their quality control manual to the jurisdiction prior to starting mechanical work in Washington state.

(2) Submit a completed copy of the "process traveler/checklist" signed off by qualified company QC personnel and the national board commissioned inspector with "R" endorsement for each repair/alteration job within forty-five days of the completion of the physical work.

(3) Submit a completed copy of the completed "R-1" (for repairs, also for routine repairs) form or the completed "R-2" (for alterations) form within forty-five days of the completion of the physical work.

Repairs and alterations to nonstandard boilers and pressure vessels, as addressed in WAC 296-104-215, must be authorized by the chief inspector.

[Statutory Authority: Chapter 70.79 RCW. WSR 20-06-058, § 296-104-503, filed 3/3/20, effective 4/3/20. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 08-24-072, § 296-104-503, filed 12/1/08, effective 1/1/09.]

WAC 296-104-510 Repairs—When a lap seam crack is discovered along a riveted longitudinal joint on a boiler or unfired pressure vessel, what action is required and what repairs are allowed? A "lap seam crack" is a crack found in a riveted lap seam, extending parallel to the longitudinal joint and located either between or adjacent to rivet holes. Repairs to a "lap seam crack" on a shell or drum of any boiler or unfired pressure vessel is not allowed. The shell or drum of any boiler or unfired pressure vessel in which a lap seam crack is discovered shall be immediately discontinued from use.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-510, filed 12/24/03, effective 1/24/04. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-510, filed 10/28/98, effective 11/28/98; Part VII, § 3, filed 3/23/60.]

WAC 296-104-515 Repairs—Do riveted repairs to boilers and unfired pressure vessels require prior approval? Yes, riveted repairs to boilers and unfired pressure vessels requires prior approval by the chief inspector.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-515, filed 12/24/03, effective 1/24/04. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-515, filed 10/28/98, effective 11/28/98. Statutory Authority: RCW 70.79.030. WSR 86-04-059 (Order 86-01), § 296-104-515, filed 2/4/86. Statutory Authority: RCW 70.79.030 and 70.79.330. WSR 84-21-012 (Order 84-20), § 296-104-515, filed 10/5/84; Part VII, § 4, filed 3/23/60.]

WAC 296-104-520 Repairs—What are the requirements for repair of nonnuclear safety devices? (1) The resetting, repairing, and restamping of safety valves and relief valves shall be done by a qualified valve repair organization holding a valid "VR" Certificate of Authorization issued by the National Board of Boiler and Pressure Vessel Inspectors. ASME valve manufacturers holding a valid "V," "HV," and "UV"

Certificate(s) of Authorization may also do this work provided they also have a valid "VR" Certificate of Authorization issued by the national board.

(2) With jurisdictional approval, boiler and pressure vessel owners/users, may authorize external adjustments to bring their installed safety valves and relief valves, back to the stamped set pressure when performed by the owner/user's trained, qualified, regular, and full-time employees. Refer to Supplement 7.10 of the National Board Inspection Code as referenced in WAC 296-104-502(1) for guidelines regarding training, documentation, and the implementation of a quality system for the owner/user employees. All such external adjustments shall be resealed with a metal tag showing the identification of the organization making the adjustments and the date. If any valve repairs are required, they shall be done by a qualified "VR" certificate holder.

(3) Repairing of noncode relief or safety valves shall not be allowed, except as specified below. Noncode liquid relief valves installed prior to 1-1-85 shall be repaired by an organization holding a valid "VR" Certificate of Authorization, but need not be stamped.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 08-24-072, § 296-104-520, filed 12/1/08, effective 1/1/09; WSR 06-24-042, § 296-104-520, filed 11/30/06, effective 1/1/07. Statutory Authority: Chapter 70.79 RCW. WSR 04-21-069, § 296-104-520, filed 10/19/04, effective 1/1/05. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-520, filed 12/24/03, effective 1/24/04. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-520, filed 10/28/98, effective 11/28/98; Part VII, § 5, filed 3/23/60.]

WAC 296-104-535 Repairs—What are the requirements for nuclear repairs/replacement? (1) Repairs/replacement to all nuclear components, appurtenances, and their supports shall conform to the rules contained in the ASME Section XI Code. The ASME Section XI Code edition and addenda shall be as specified in the owner in-service inspection program plan.

(2) Where a repair/replacement is performed, a report as required by ASME Section XI Code, signed by the owner and the Authorized Nuclear In-service Inspector (ANII) shall be submitted to the jurisdiction.

[Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-535, filed 10/28/98, effective 11/28/98.]

WAC 296-104-540 Repairs—What are the requirements for nuclear repairs of safety devices? All nuclear pressure retaining items shall be safe-guarded by safety devices, as specified in the ASME Section III, Division 1, Class 1, 2, and 3.

(1) The resetting, repair, and restamping of these safety devices shall be performed only by organizations holding a valid National Board "NR" and "VR" Certificate of Authorization to repair ASME Section III Code safety devices. An owner's ASME Section XI program may be used in lieu of a "NR" Certificate of Authorization for repair activities of the owner's valves. The repair work shall be documented on the applicable NR-1/NVR-1 form or on an owner's NIS-2 form. All re-

pair/replacement activities performed under the "NR" Certificate of Authorization or owner's Section XI Repair program must be in accordance with the provisions of the NBIC, ASME Section XI, and the rules of the jurisdiction.

(2) External adjustments or repair activities performed by the owner shall be resealed with a metal tag showing the identification of the organization and the date.

[Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 07-24-057, § 296-104-540, filed 12/4/07, effective 1/4/08; WSR 06-24-042, § 296-104-540, filed 11/30/06, effective 1/1/07. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 98-22-024, § 296-104-540, filed 10/28/98, effective 11/28/98.]

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.

The boiler and pressure vessel installation/reinstallation permit fee of $83.80 shall be paid by the installer, as defined in WAC 296-104-010.

Certificate of inspection fees: For objects inspected, the certificate of inspection fee per object is $36.00.

Hot water heaters per RCW 70.79.090, inspection fee: $10.60.

The department shall assess a $8.60 fee, per object, for processing of jurisdictional inspection reports to any authorized in-service inspection agency or inspector who does not file the report directly into the department's electronic inspection report system.

Heating boilers:	Internal	External
Cast iron—All sizes	$60.90	$48.60
All other boilers less than 500 sq. ft.	$60.90	$48.60
500 sq. ft. to 2500 sq. ft.	$122.00	$60.90
Each additional 2500 sq. ft. of total heating surface, or any portion thereof	$48.60	$23.60
Power boilers:	**Internal**	**External**
Less than 100 sq. ft.	$60.90	$48.60
100 sq. ft. to less than 500 sq. ft.	$73.80	$48.60
500 sq. ft. to 2500 sq. ft.	$122.00	$60.90
Each additional 2500 sq. ft. of total heating surface, or any portion thereof	$48.60	$23.60
Pressure vessels:		
Square feet shall be determined by multiplying the length of the shell by its diameter.	Internal	External
Less than 15 sq. ft.	$48.60	$36.00
15 sq. ft. to less than 50 sq. ft.	$72.40	$36.00
50 sq. ft. to 100 sq. ft.	$84.40	$48.60
For each additional 100 sq. ft. or any portion thereof	$84.30	$23.60
Nonnuclear shop inspections, field construction inspections, and special inspection services:		
For each hour or part of an hour up to 8 hours		$73.80

For each hour or part of an hour in excess of 8 hours	$110.30
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	$110.30
For each hour or part of an hour in excess of 8 hours	$172.80
Nonnuclear triennial shop survey and audit:	
When state is authorized inspection agency:	
For each hour or part of an hour up to 8 hours	$73.80
For each hour or part of an hour in excess of 8 hours	$110.30
When insurance company is authorized inspection agency:	
For each hour or part of an hour up to 8 hours	$110.30
For each hour or part of an hour in excess of 8 hours	$172.80

Examination fee: A fee of $136.60 will be charged for each applicant sitting for an inspection examination(s).

Special inspector commission: A fee of $73.70 for initial work card. A fee of $45.60 for annual renewal.

If a special inspector changes companies: A work card fee of $73.70.

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 $689.60 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.

[Statutory Authority: Chapter 70.79 RCW. WSR 26-18-075 (Order 25-27), s 296-104-700, filed 9/1/26, effective 10/2/26; WSR 25-09-124, s 296-104-700, filed 4/22/25, effective 7/1/25; WSR 24-12-068, § 296-104-700, filed 6/4/24, effective 7/5/24; WSR 22-09-062, § 296-104-700, filed 4/19/22, effective 7/1/22; WSR 21-20-118, § 296-104-700, filed 10/5/21, effective 11/5/21; WSR 21-12-088, § 296-104-700, filed 6/1/21, effective 7/2/21; WSR 21-03-067, § 296-104-700, filed 1/19/21, effective 2/19/21; WSR 20-06-058, § 296-104-700, filed 3/3/20, effective 4/3/20; WSR 19-15-120, § 296-104-700, filed 7/23/19, effective 9/1/19; WSR 18-23-092, § 296-104-700, filed 11/20/18, effective 1/1/19; WSR 18-01-113, § 296-104-700, filed 12/19/17, effective 1/31/18; WSR 17-13-105, § 296-104-700, filed 6/20/17, effective 7/31/17; WSR 16-18-003, § 296-104-700, filed 8/25/16, effective 10/1/16; WSR 13-10-018, § 296-104-700, filed 4/23/13, effective 6/1/13. Statutory Authority: Chapter 70.79 RCW and 2011 1st sp.s. c 50. WSR 12-09-057, §

296-104-700, filed 4/17/12, effective 6/30/12. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and 2009 c 90. WSR 10-06-049, § 296-104-700, filed 2/24/10, effective 4/1/10. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 08-12-015, § 296-104-700, filed 5/27/08, effective 6/30/08; WSR 07-11-137, § 296-104-700, filed 5/22/07, effective 6/30/07; WSR 06-12-032, § 296-104-700, filed 5/31/06, effective 7/1/06; WSR 05-12-028, § 296-104-700, filed 5/24/05, effective 6/30/05. Statutory Authority: Chapter 70.79 RCW. WSR 04-21-069, § 296-104-700, filed 10/19/04, effective 1/1/05; WSR 04-13-044, § 296-104-700, filed 6/10/04, effective 6/30/04. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, 70.79.350, and chapter 70.79 RCW. WSR 04-01-194, § 296-104-700, filed 12/24/03, effective 1/24/04; WSR 03-12-051, § 296-104-700, filed 5/30/03, effective 6/30/03; WSR 02-23-036, § 296-104-700, filed 11/13/02, effective 12/14/02; WSR 02-12-021, § 296-104-700, filed 5/28/02, effective 6/28/02; WSR 01-24-061, § 296-104-700, filed 11/30/01, effective 12/31/01; WSR 01-12-034, § 296-104-700, filed 5/29/01, effective 6/29/01. Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-700, filed 10/10/00, effective 11/13/00. Statutory Authority: RCW 70.79.030 and 70.79.040. WSR 99-08-049, § 296-104-700, filed 4/1/99, effective 5/2/99; WSR 98-09-064, § 296-104-700, filed 4/20/98, effective 5/21/98. Statutory Authority: RCW 70.79.040. WSR 93-12-014, § 296-104-700, filed 5/21/93, effective 6/21/93. Statutory Authority: RCW 70.79.030 and 70.79.330. WSR 84-21-012 (Order 84-20), § 296-104-700, filed 10/5/84; WSR 84-11-016 (Order 84-09), § 296-104-700, filed 5/10/84; WSR 82-24-025 (Order 82-36), § 296-104-700, filed 11/23/82, effective 1/1/83; Order 77-23, § 296-104-700, filed 11/8/77; Emergency Order 77-22, § 296-104-700, filed 11/8/77.]

WAC 296-104-701 What are the civil penalties? (1) An installer, owner, user, operator, or repair organization of a boiler or pressure vessel that violates a provision of chapter 70.79 RCW, or of the rules adopted under that chapter, is liable for a civil penalty based on the following schedule.

Operating under pressure a boiler or pressure vessel which the department has condemned, has issued a red tag or has suspended the inspection certificate:

First offense	$150.00
Second offense	$300.00
Each additional offense	$500.00

Each day of such unlawful operation shall be deemed a separate offense.

Operating under pressure a boiler or pressure vessel without a valid inspection certificate:

First offense	$50.00
Second offense	$100.00
Each additional offense	$200.00

Each day of such unlawful operation shall be deemed a separate offense.

Installation of a boiler or pressure vessel without meeting prior filing requirements of WAC 296-104-020:

First offense	$100.00
Second offense	$200.00
Each additional offense	$500.00

Performing a welded repair or alteration to a boiler or unfired pressure vessel, without meeting the filing and procedural requirements of WAC 296-104-503:

First offense	$150.00
Second offense	$300.00
Each additional offense	$500.00

A violation will be a second or additional offense only if it occurs within one calendar year from the first violation.

Performing resetting, repair or restamping of safety valves, safety relief valves, or rupture discs, without meeting requirements of WAC 296-104-520:

First offense	$150.00
Second offense	$300.00
Each additional offense	$500.00

Failure of owner to notify chief inspector in case of accident which serves to render a boiler or unfired pressure vessel inoperative, as required by WAC 296-104-025:

Each offense	$100.00

Failure to comply with a noncompliance report requirement:

Within 90 days	$100.00
Within 91-180 days	$250.00
Within 181-270 days	$400.00
Within 271-360 days	$500.00

(2) The inspection agency responsible for the in-service inspector of a boiler or unfired pressure vessel that violates a provision of chapter 296-104 WAC, or the rules adopted under that chapter, is liable for a civil penalty based on the following schedule.

Failure to file a report of inspection per WAC 296-104-040:

Each offense	$50.00

Failure to apply a state serial number per WAC 296-104-140:

Each offense	$50.00

Failure to attach a "Red TAG" per WAC 296-104-110:

Each offense	$50.00

Each object (boiler or unfired pressure vessel) is considered a separate offense.

(3) The department shall by certified mail notify a person of its determination that the person has violated this section.

(4) Any person aggrieved by an order or act under the boiler and unfired pressure vessels law or under the rules and regulations may appeal to the board of boiler rules. This appeal shall be filed within twenty days after service of the notice of the penalty to the assessed

party by filing a written notice of appeal with the chief boiler inspector per RCW 70.79.361.

(5) Each day that a violation occurs will be a separate offense. A violation will be a second or additional offense only if it occurs within one year from the first violation.

[Statutory Authority: Chapter 70.79 RCW. WSR 21-03-067, § 296-104-701, filed 1/19/21, effective 2/19/21; WSR 18-01-113, § 296-104-701, filed 12/19/17, effective 1/31/18. Statutory Authority: RCW 70.79.030, 70.79.040, 70.79.150, 70.79.290, 70.79.330, and 70.79.350. WSR 05-22-092, § 296-104-701, filed 11/1/05, effective 1/1/06. Statutory Authority: Chapter 70.79 RCW. WSR 04-21-069, § 296-104-701, filed 10/19/04, effective 1/1/05. Statutory Authority: RCW 70.79.030, 70.79.040 and chapter 70.79 RCW. WSR 00-21-024, § 296-104-701, filed 10/10/00, effective 11/13/00. Statutory Authority: Chapter 70.79 RCW. WSR 87-12-003 (Order 87-10), § 296-104-701, filed 5/21/87.]