

**AGENDA  
ITEM  
VI.**

**STATE OF OREGON**

**MEMORANDUM**

**BUILDING CODES DIVISION**

**JUNE 19, 2003**

**TO:** BOARD OF BOILER RULES

**FROM:** JOAN DAVIES  
HEARINGS OFFICER

**SUBJECT:** HEARINGS OFFICER REPORT ON PROPOSED RULE TO CLARIFY  
THE DEADLINE FOR OBTAINING CONTINUING EDUCATION

**HISTORY:** ORS 480.545 grants the board authority to adopt and enforce rules and minimum safety standards to carry out ORS 480.510 and 480.670 and adopt standards for persons performing welding on boilers and pressure vessels.

ORS 480.630 grants the department authority to license and certify persons installing, altering or repairing boilers or pressure vessels, to require annual renewal of licenses and certifications, and to require annual completion of continuing education.

Draft rule 918-225-0691 was approved for rulemaking at the May 2, 2003, special board meeting, clarifying the deadline for obtaining continued education. The Notice of Proposed Rulemaking was filed with the Secretary of State on May 14, 2003, and advertised in the Oregon Bulletin June 1.

**ANALYSIS:** There were no members of the public in attendance. The record closed at 5 p.m. on June 19, 2003. No written testimony was received. The hearings officer has reviewed the proposed rule and statutory requirements. All procedural and legal requirements have been met.

**DISCUSSION:** To have this rule amendment in place by July 1, the board agreed that if no changes were made to the rule, the division could file and report back to the board at their next meeting. Subsequently, the division filed the rule to be effective July 1, 2003.

**RECOMMENDATION:** None

**918-225-0691**

**Boiler, Pressure Vessel and Pressure Piping Installation, Alteration or Repair Certification Requirements**

Persons installing, altering or repairing boilers and pressure vessels shall be certified under these rules and may only work within the scope of their certification.

(1) Persons desiring to obtain certification under these rules shall:

(a) Meet the qualifications for that certification;

(b) Apply on a division form; and

(c) Pay the appropriate fee.

(2) An applicant may request the Board of Boiler Rules to approve alternate verification of training and work experience on a case-by-case basis when required by the certifications in sections (5) through (10) of this rule.

(3) Definitions. For the purpose of this rule:

(a) "Direct Supervision" means the person supervised is in the physical presence of a qualified certified person at the job site and the person doing the supervision is directly assigned to monitor and direct the activities of the person supervised;

(b) "Qualified Certified Person" means a person who holds a Class 2, 3, 4, 5, 5-A or 5-B certification and is authorized to do the work involved without supervision;

(c) "Supervision" means the individual person assigned to perform supervision under section (10) of this rule is directly and specifically assigned to monitor and direct the activities of the person being supervised. Both the person performing supervision and those being supervised shall be prepared to identify each other.

(d) "Verifiable" means the matter asserted by an applicant for certification is corroborated by independent evidence or by the sworn statements of others with actual knowledge.

(4) Class 1 Trainee/Helper Certification. A person holding this certification may install, alter or repair boilers, pressure vessels and pressure piping providing the work is of a mechanical nature only. Work performed shall be under the direct supervision of a qualified certified person. Direct supervision must be on a ratio of one qualified certified person to one trainee/helper. No **ASME Code** welding is permitted. This certification has no fixed or limited duration. A person may be permanently certified under this category. There are no minimum qualifications required for applicants to obtain this certification.

(5) Class 2 Pressure Vessel Installer Certification. A person holding this certification may install or repair unfired pressure vessels by any non-welded method of attachment.

(a) There are no minimum qualifications required to obtain this certification. Applicants shall pass an examination testing the applicant's knowledge of the Boiler and Pressure Vessel Law, ORS 480.510 to 480.665; OAR Chapter 918, Division 225; and **American Society of Mechanical Engineers, Boiler and Pressure Vessel Code, Section VIII, Division 1, General Requirements.**

(b) Persons who install refrigeration process equipment assembled and sold as a modular unit by the manufacturer and who do not attach piping to a pressure vessel during the installation, are exempt from this rule. To qualify for this exemption, the attachment shall be made by any method other than fusion welding.

(6) Class 3 Building Service Mechanic Certification. A person holding this certification may install or repair boilers (including boiler and non-boiler external piping) and unfired pressure vessels by a non-welded method of attachment. Applicants shall:

(a) Have at least 2,000 hours of verifiable experience installing and repairing boilers;

(b) Pass an examination testing the applicants knowledge of:

(A) Boiler and Pressure Vessel Laws, ORS 480.510 to 480.665; OAR Chapter 918, Division 225; and the general requirements of the **American Society of Mechanical Engineers, Boiler and Pressure Vessel Code, Sections I, IV and VIII, and CSD-1;**

(B) The State of Oregon Boiler Safety Program Study Guide;

(C) Building Service Systems (Hydronics) for boilers and related appurtenances, **American Society of Mechanical Engineers/ASME B31.1 Power Piping and B31.9 Building Service Piping;** and

(D) Structural and mechanical blueprints with the ability to interpret specifications.

(7) Class 4 Boilermaker Certification. A person holding this certification may install, alter or repair boilers and pressure vessels (excluding non-boiler external piping) by welding or other methods of attachment. Applicants shall:

(a) Have 2,000 hours of verifiable experience doing welding and 2,000 hours of verifiable experience doing non-welding applications involving boilers or pressure vessels. The verification must cover welding and non-welding applications separately; and

(b) Pass an examination testing the applicant's knowledge of:

(A) Boiler and Pressure Vessel Laws, ORS 480.510 to 480.665; OAR Chapter 918, Division 225; and the general requirements of the **American Society of Mechanical Engineers, Boiler and Pressure Vessel Code, Sections I, II, IV, V, VIII and IX, CSD-1, B31.1 and B31.9;**

(B) General boilermaker skills and procedures;

(C) Blueprint reading, layout and shop mathematics;

(D) Interpreting plans and specifications covering installation, alteration, repair, fabrication and erection of boilers and pressure vessels;

(E) Welding process, metallurgy and other procedures particularly applicable to boilers and pressure vessels; and

(F) The State of Oregon Boiler Safety Program Study Guide.

(c) Class 4 Boilermakers may also perform the scope of work allowed under section (8) of these rules providing;

(A) Work may only be done under the supervision of a qualified certified person under section (8) of these rules; and

(B) Prior to any welding, the individual must qualify to supervisor's employer's welding procedures.

(8) Class 5 Pressure Piping Mechanic Certification. A person holding this certification may:

(a) Fabricate, install, alter and repair pressure piping;

(b) Install boilers and pressure vessels by attachment of piping connections; and

(c) Install, assemble and repair cast iron sectional boilers.

(A) Applicants shall have a minimum of 2,000 hours of verifiable experience performing pipe-welding on **ASME B31** pressure piping and 2,000 hours of verifiable experience performing work on pressure piping and boilers; and

(B) Pass an examination testing the applicant's knowledge of:

(i) **American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Sections I and IV, CSD-1 and B31 Pressure Piping;**

(ii) Structural and mechanical blueprints with the ability to interpret specifications;

(iii) Pressure piping systems and controls;

(iv) Boiler and Pressure Vessel Laws, ORS 480.510 to 480.665 and OAR Chapter 918, Division 225;

(v) The State of Oregon Boiler Safety Program Study Guide; and

(vi) Welding and brazing processes, heat treatment, metallurgy and other procedures applicable to pressure piping systems.

(d) Class 5 [~~Process~~] **Pressure** Piping Mechanics may also perform the scope of work allowed under section (7) of these rules providing;

(A) Work may only be done under the supervision of a qualified certified person under section (7) of these rules; and

(B) Prior to any welding, the individual must qualify to supervisor's employer's welding procedures.

(9) Class 5-A Process Piping Mechanic Certification. A person holding this certification may fabricate, install, alter or repair **B31.3** process piping. Applicants shall:

(a) Have a minimum of 2,000 hours of verifiable experience performing pipe-welding or brazing on **B31.3** process piping and 2,000 hours of verifiable experience performing work on pressure piping; and

(b) Pass an examination testing the applicant's knowledge of:

(A) **American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section B31.3;**

(B) Structural and mechanical blueprints with the ability to interpret specifications;

(C) Pressure piping controls;

(D) Boiler and Pressure Vessel Laws, ORS 480.510 to 480.665 and OAR Chapter 918, Division 225; and

(E) Welding, brazing, chemical bonding procedures, heat treatment, metallurgy and other procedures applicable to pressure piping systems.

(10) Class 5-B Refrigeration Piping Mechanic Certification. A person holding this certification may fabricate, install, alter or repair **B31.5** refrigeration piping. Applicants shall:

(a) Have a minimum of 2,000 hours of verifiable experience performing pipe-welding or brazing on **B31.5** refrigeration piping and 2,000 hours of verifiable experience performing work on pressure piping; and

(b) Pass an examination testing the applicant's knowledge of:

(A) **American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section B31.5;**

(B) Structural and mechanical blueprints with the ability to interpret specifications;

(C) Pressure piping controls;

(D) Boiler and Pressure Vessel Laws, ORS 480.510 to 480.665 and OAR Chapter 918, Division 225; and

(E) Welding, brazing, heat treatment, metallurgy and other procedures applicable to pressure piping systems.

(11) Class 6 Welder Certification. A person holding this certification may weld on boilers, pressure vessels or pressure piping while employed by an approved welding employer. Work may only be performed under the supervision of a person certified under sections (7) through (10) of this rule as applicable. More than one welder may be supervised by one appropriately qualified certified person under this certification.

(a) A Class 6 Welder may also perform the scope of work under section (4) of this rule providing the work performed is under the direct supervision of a qualified certified person under sections (5) through (10) of these rules.

(b) Applicants shall be qualified as a welder in accordance with the **American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section IX, Part QW**. The employer shall attest in writing that the applicant is qualified under that code section and is currently qualified to that employer's welding procedures. This written statement is not transferable to another employer.

(12) Certifications may be renewed annually providing the person is in good standing and:

(a) Completes 8 hours of division-approved continuing education; and

(b) Pays renewal fee.

(13) Class 1 Trainee/Helpers and Class 6 Welders are exempt from the continuing education requirements.

(14) Individuals holding a Class 5 Pressure Piping Mechanic certification, who wish to maintain the Class 5 certification shall, by June 30, 2004:

(a) Complete 8 hours of division-approved continuing education per OAR 918-225-0900, specifically focused on **ASME Sections I and IV, [~~CSD-1 and~~ Cast Iron Sectional Boilers, ASME B31.3 Process Piping and B31.5 Refrigeration Piping**; and

(b) Pay a renewal fee.

(15) Individuals holding a Class 3 Building Service Mechanic Certification, a Class 4 Boilermaker certification or a Class 5 Pressure Piping Mechanic certification shall, [~~between July 1, 2004, and~~ **by** June 30, 2005:

(a) Complete 8 hours of division-approved continuing education per OAR 918-225-0900, specifically focused on **ASME CSD-1**; [~~and~~]

(b) Pay a renewal fee **every year; and**

**(c) Meet any other requirements determined by rule.**

Stat. Auth.: ORS 480.545 & 480.630

Stats. Implemented: ORS 480.630

Hist.: f. 3-14-03, cert. ef. 7-1-03; **f. 6-26-03, cert. ef. 7-1-03**