CHAPTER 90

ADMINISTRATION OF THE BOILER AND PRESSURE VESSEL PROGRAM

[Prior to 1/14/98, see 347—Chs 41 to 49] [Prior to 8/16/06, see 875—Chs 200, 202]

875—90.1(89) Purpose and scope. These rules institute administrative and operational procedures for implementation of Iowa Code chapter 89. An object shall not be considered "under pressure" and shall not be within the scope of Iowa Code chapter 89 when there is clear evidence that the manufacturer did not intend it to be operated at more than 3 psi and the object is operating at 3 psi or less. [ARC 0416C, IAB 10/31/12, effective 12/5/12]

875—90.2(89,261,252J,272D) **Definitions.** To the extent they do not conflict with the definitions contained in Iowa Code chapter 89, the definitions in this rule shall be applicable to the rules contained in 875—Chapters 90 to 96.

"Alteration" means a change in a boiler or pressure vessel that substantially alters the original design requiring consideration of the effect of the change on the original design. It is not intended that the addition of nozzles smaller than an unreinforced opening size will be considered an alteration.

"ANSI/ASME CSD-1" means Control and Safety Devices for Automatically Fired Boilers.

"ASME" means the American Society of Mechanical Engineers.

"Blowoff valve" means all blowoff valves, drain valves, and pipe connections.

"Boiler" means a vessel in which water or other liquids are heated, steam or other vapors are generated, steam or other vapors are superheated, or any combination thereof, under pressure or vacuum by the direct application of heat. "Boiler" includes all temporary boilers.

"Certificate of noncompliance" means:

- 1. A certificate of noncompliance issued by the child support recovery unit, department of human services, pursuant to Iowa Code chapter 252J;
- 2. A certificate of noncompliance issued by the college student aid commission pursuant to Iowa Code chapter 261; or
- 3. A certificate of noncompliance issued by the centralized collection unit of the department of revenue pursuant to Iowa Code chapter 272D.

"CFR" means Code of Federal Regulations.

"Construction or installation code" means the applicable standard for construction or installation in effect at the time of installation.

"Division" means the division of labor services, unless another meaning is clear from the context.

"Electric boilers" means a power boiler, heating boiler, high or low temperature water boiler in which the source of heat is electricity.

"External inspection" means as complete an examination as can be reasonably made of the external surfaces and safety devices while the boiler or pressure vessel is in operation.

"High temperature water boiler" means a water boiler intended for operations at pressures in excess of 160 psig or temperatures in excess of 250 degrees F.

"Hot water heating boiler" means a boiler in which no steam is generated, from which hot water is circulated for heating purposes and then returned to the boiler, and which operates at a pressure not exceeding 160 psig or a temperature of 250 degrees F at the boiler outlet.

"Hot water supply boiler" means a boiler completely filled with water that furnishes hot water to be used externally to itself at pressures not exceeding 160 psig or at temperatures not exceeding 250 degrees F.

"Institution of health and custodial care" means any of the following:

- 1. A health care facility as defined by Iowa Code section 135C.1;
- 2. An assisted living program as defined by Iowa Code section 231C.2:
- 3. A boarding home as defined by Iowa Code section 1350.1;
- 4. A hospice that offers inpatient services in an institutional setting;
- 5. Any institution or facility in which persons are housed to receive medical, health, or other care or treatment; or

6. Any other institution or facility in which persons are housed to receive assistance with meeting personal needs or activities of daily living.

A facility or office that provides care and services only on an outpatient basis shall not be an "institution of health and custodial care."

"Internal inspection" means as complete an examination as can be reasonably made of the internal and external surfaces of a boiler or pressure vessel while it is shut down and while manhole plates, handhole plates or other inspection opening closures are removed as required by the inspector.

"ISO" means International Standards Organization.

"Labor commissioner" means the labor commissioner or the commissioner's designee.

"Lap seam crack" means a crack found in lap seams, extending parallel to the longitudinal joint and located either between or adjacent to rivet holes.

"National Board" means the National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, Ohio 43229, whose membership is composed of the chief inspectors of jurisdictions who are charged with the enforcement of the provisions of boiler codes.

"National Board Inspection Code" means the Manual for Boiler and Pressure Vessel Inspectors (ANSI/NB 23) published by the National Board. Copies of the code may be obtained from the National Board.

"Object" means a boiler or pressure vessel.

"Power boiler" means a boiler in which steam or other vapor is generated at a pressure of more than 15 pounds per square inch or a water boiler intended for operation at pressures in excess of 160 pounds per square inch or temperatures in excess of 250 degrees Fahrenheit.

"Process steam generator" means a vessel or system of vessels comprised of one or more drums and one or more heat exchange surfaces as used in waste heat or heat recovery type steam boilers.

"Psig" means pounds per square inch gage.

"Reinstalled boiler or pressure vessel" means an object removed from its original setting and reinstalled at the same location or at a new location.

"Relief valve" means an automatic pressure-relieving device actuated by a static pressure upstream of the valve that opens further with the increase in pressure over the opening pressure and that is used primarily for liquid service.

"Repair" means work necessary to return a boiler or pressure vessel to a safe operating condition.

"Rupture disk device" means a nonreclosing pressure-relief device actuated by inlet static pressure and designed to function by the bursting of a pressure-containing disk.

"Safety appliance" shall include, but not be limited to:

- 1. Rupture disk device;
- 2. Safety relief valve;
- 3. Safety valve;
- 4. Temperature limit control;
- 5. Pressure limit control;
- 6. Gas switch;
- 7. Air switch; or
- 8. Any major gas train control.

"Safety relief valve" means an automatic, pressure-actuated relieving device suitable for use as a safety or relief valve, depending on application.

"Safety valve" means an automatic, pressure-relieving device actuated by the static pressure upstream of the valve and characterized by full opening pop action. The safety valve is used for gas or vapor service.

"Special inspection" means an inspection which is not required by Iowa Code chapter 89.

"Temperature and pressure relief valve" means a valve set to relieve at a designated temperature and pressure.

"Unfired steam boiler" means a vessel or system of vessels intended for operation at a pressure in excess of 15 psig for the purpose of producing and controlling an output of thermal energy.

"Unfired steam pressure vessel" means a vessel or container used for the containment of steam pressure either internal or external in which the pressure is obtained from an external source.

"U.S. customary units" means feet, pounds, inches and degrees Fahrenheit.

"Water heater supply boiler" means a closed vessel in which water is heated by combustion of fuels, electricity or any other source and withdrawn for use external to the system at pressure not exceeding 160 psig and shall include all controls and devices necessary to prevent water temperatures from exceeding 210 degrees F.

[ARC 8283B, IAB 11/18/09, effective 1/1/10; ARC 9790B, IAB 10/5/11, effective 11/9/11; ARC 0319C, IAB 9/5/12, effective 10/10/12; ARC 0739C, IAB 5/15/13, effective 6/19/13]

- **875—90.3(89) Iowa identification numbers.** All objects shall be identified by an Iowa identification number. State inspectors and special inspectors shall assign identification numbers as directed by the division to all jurisdictional objects that lack numbers. Identification numbers shall be attached in plain view to the object using one of the following methods:
 - 1. A yellow sticker 2 inches by 3 inches affixed to the object and bearing the number.
 - 2. A metal tag 1 inch by $2\frac{1}{2}$ inches affixed to the object and bearing the number.
 - 3. Numbers at least 5/16 of an inch high and stamped directly on the object.

875—90.4(89) National Board registration. Rescinded IAB 11/18/09, effective 1/1/10.

875—90.5(89) Preinspection owner or user preparation.

90.5(1) *Preparation of objects.* Each owner or user shall ensure that each object covered by Iowa Code chapter 89 is prepared for inspection pursuant to this rule.

90.5(2) Confined space and lockout, tagout procedures.

- a. It is the responsibility of the owner or user to assess all objects for compliance with the confined space and lockout, tagout standards pursuant to 29 CFR 1910.146 and 1910.147. If an object is a non-permit-required confined space or a permit-required confined space as defined by 29 CFR 1910.146, the owner or user must comply with all applicable requirements of 29 CFR 1910.146 and 1910.147 in preparing the object for inspection.
- b. It is the duty of the owner or user to inform any inspector of the owner's or user's confined space entry and lockout, tagout procedures and supply to the inspector all information necessary to assess whether the confined space is safe for entry. It is the right of an inspector to verify any of the information supplied.
- c. If the requirements of 29 CFR 1910.146 and 1910.147 are not met, the inspector shall not enter the space. If there is a breach of the procedure or the procedure is inconsistent with 29 CFR 1910.146 or 1910.147, the inspection process shall cease until the space is reassessed and determined to be safe or the procedure is rewritten in a manner consistent with the standards. No inspector shall violate the owner's or user's confined space or lockout, tagout procedures in making an inspection.
- d. The owner or user shall have all objects locked and tagged, as applicable, prior to the inspector's entry for inspection or testing.
- *e.* For entry into a permit-required confined space, the owner or user shall provide the necessary equipment such as air monitors and a qualified attendant who has received all the information relevant to the entry.
- **90.5(3)** *Hydrostatic tests.* The owner or user shall prepare for and apply a hydrostatic test, whenever necessary, on the date specified by the inspector, which date shall be not less than seven days after the date of notification

90.5(4) *Boilers.* A boiler shall be prepared for internal inspection in the following manner:

- a. Fluid shall be drawn off and the boiler washed thoroughly.
- *b*. Manhole and handhole plates, washout plugs and inspection plugs in water columns shall be removed as required by the inspector. The furnace and combustion chambers shall be thoroughly cooled and cleaned.
 - c. All grates of internally fired boilers shall be removed.

- d. Brickwork shall be removed as required by the inspector in order to determine the condition of the boiler, header, furnace, supports or other parts.
 - e. Low-water fuel cutoff controls shall be opened or removed to allow for visual inspection.
- **90.5(5)** *Pressure vessels.* The extent of inspection preparation for a pressure vessel will vary. If the inspection is to be external only, advance preparation is not required other than to afford reasonable access to the vessel. For combined internal and external inspections of small vessels of simple construction handling air, steam, nontoxic or nonexplosive gases or vapors, minor preparation is required, including affording reasonable means of access and removing manhole plates and inspection openings. In other cases, preparation shall include removing the internal fittings and appurtenances to permit satisfactory inspection of the interior of the vessel if required by the inspector.
- **90.5(6)** Removal of covering or brickwork to permit inspection. If the object is jacketed so that the longitudinal seams of shells, drums, or domes cannot be seen, sufficient jacketing, setting wall, or other form of casing or housing shall be removed to permit reasonable inspection of the seams and so that the size of rivets, pitch of the rivets, and other data necessary to determine the safety of the object may be obtained, providing the information cannot be determined by other means. Brickwork shall be removed as required by the inspector in order to determine the condition of the boiler, header, furnace, supports or other parts.
- **90.5**(7) *Improper preparation for inspection.* If an object has not been properly prepared for an internal inspection, or if the owner or user fails to comply with the requirements for hydrostatic tests as set forth in this chapter, the inspector may decline to make the inspection or test, and the inspection certificate shall be withheld until the owner or user complies with the requirements.

 [ARC 9082B, IAB 9/22/10, effective 10/27/10]

875—90.6(89) Inspections.

90.6(1) *General.* All boilers and unfired steam pressure vessels covered by Iowa Code chapter 89 shall be inspected according to the requirements of the National Board Inspection Code (2011), which is hereby adopted by reference. A division inspector or special inspector must perform the inspections.

90.6(2) *Schedule.*

- a. All required inspections must be performed according to the schedule set forth in Iowa Code section 89.3.
- b. Except for inspections of unfired steam pressure vessels operating in excess of 15 pounds per square inch and low pressure steam boilers, each certificate inspection must be performed within a 60-day period prior to the expiration date of the operating certificate. Modification of this 60-day period will be permitted only upon written application showing just cause for waiver of the 60-day period.
- c. Special inspections may be conducted at any time mutually agreed to by the division and the object's owner or user.
- **90.6(3)** *Inspections conducted by special inspectors.* Special inspectors shall provide copies of the completed report to the insured and to the division within 30 days of the inspection. The reports shall list all adverse conditions and all requirements, if any. If the special inspector has not notified the division of the inspection results within 30 days of the expiration of an operating certificate, the division may conduct the inspection.
- **90.6(4)** *Type of inspection.* The inspection shall be an internal inspection when required; otherwise, it shall be as complete an external inspection as possible. Conditions including, but not limited to, the following may also be the basis for an internal inspection:
 - a. Visible metal or insulation discoloration due to excessive heat.
 - b. Visible distortion of any part of the pressure vessel.
 - c. Visible leakage from any pressure-containing boundary.
- d. Any operating records or verbal reports of a vessel being subjected to pressure above the nameplate rating or to a temperature above or below the nameplate design temperature.
 - e. A suspected or known history of internal corrosion or erosion.
 - f. Evidence or knowledge of a vessel having been subjected to external heat from a fire.
 - g. A welded repair not documented as required.

- h. Evidence of an accident, incident or malfunction that could affect or may have resulted from a problem with the object's integrity.
- **90.6(5)** Internal inspections for unfired steam pressure vessels operating at more than 15 pounds per square inch. The commissioner may require an internal inspection of an unfired steam pressure vessel operating in excess of 15 psi when an inspector observes any deviation from these rules, Iowa Code chapter 89, the construction code, the installation code, or the National Board Inspection Code.
- **90.6(6)** *Inspection of inaccessible parts.* When, in the opinion of the inspector, as a result of conditions disclosed at the time of inspection, it is advisable to remove the interior or exterior lining, covering, or brickwork to expose certain parts of the vessel not normally visible, the owner or user shall remove such material to permit proper inspection and thickness measurement of any part of the vessel. Nondestructive examination is acceptable.
- **90.6(7)** *Imminent danger.* If the labor commissioner determines that continued operation of an object constitutes an imminent danger that could seriously injure or cause death to any person, notice to immediately cease operation of that object shall be posted by the labor commissioner. Upon such notice, the owner shall immediately begin the necessary steps to cease operation of the object. The object shall not be used until the necessary repairs have been completed and the object has passed inspection. Operation of an object in violation of this subrule may result in further legal action pursuant to Iowa Code sections 89.11 and 89.13.
- **90.6(8)** *Internal inspections on a four-year cycle.* The owner shall demonstrate compliance with the requirements set forth in 2012 Iowa Acts, Senate File 2280, by annually submitting to the labor commissioner a notarized affidavit. The affidavit shall be in a format approved by the labor commissioner and shall be signed by the owner or an officer of the company.

[ARC 8283B, IAB 11/18/09, effective 1/1/10; ARC 0319C, IAB 9/5/12, effective 10/10/12; ARC 1189C, IAB 11/27/13, effective 1/1/14]

875—90.7(89) Fees.

- **90.7(1)** Special inspector commission fee. A \$55 fee shall be paid annually to the commissioner to obtain a special inspector commission pursuant to Iowa Code section 89.7.
- **90.7(2)** *Certificate fee.* A \$40 fee shall be paid for each one-year certificate, an \$80 fee shall be paid for each two-year certificate, and a \$160 fee shall be paid for each four-year certificate.
- **90.7(3)** *Fees for inspection.* An inspection fee for each object inspected by a division inspector shall be paid by the appropriate party as follows:
 - a. A \$55 fee for each water heater supply boiler.
- b. A \$95 fee for each boiler, other than a water heater supply boiler, having a working pressure up to and including 450 pounds per square inch or generating between 20,000 and 100,000 pounds of steam per hour.
- c. A \$215 fee for each boiler, other than a water heater supply boiler, having a working pressure in excess of 450 pounds per square inch and generating in excess of 100,000 pounds of steam per hour.
- d. A \$55 fee for each pressure vessel, such as steam stills, tanks, jacket kettles, sterilizers and all other reservoirs having a working pressure of 15 pounds or more per square inch.
- e. In addition to the applicable object's inspection fee, if the division cannot follow normal practice of scheduling inspections in a cost-effective manner due to a request by an owner or user for a customized schedule, travel expenses may be charged at the discretion of the division.
- f. Upon receipt of a request for a state inspector to visit or inspect for a reason not required by Iowa Code chapter 89, the labor commissioner may negotiate an appropriate fee.
- g. If a boiler or pressure vessel has to be reinspected, there shall be another inspection fee as specified above.
- **90.7(4)** Fees for attempted inspections. A \$35 fee shall be charged for each attempt by a division inspector to conduct an inspection which is not completed through no fault of the division. [ARC 7863B, IAB 6/17/09, effective 7/1/09; ARC 8081B, IAB 8/26/09, effective 9/30/09; ARC 0319C, IAB 9/5/12, effective 10/10/12; ARC 1422C, IAB 4/16/14, effective 5/21/14]

875—90.8(89) Certificate. A certificate to operate shall not be issued until the boiler or pressure vessel is in compliance with the applicable rules and all fees have been paid. The current certificate to operate or a copy of the current certificate to operate shall be conspicuously posted in the room where the object is installed.

875—90.9(89,252J,261) Special inspector commissions.

- **90.9(1)** Application. A person applying for a commission shall complete, sign, and submit to the division with the required fee the form entitled "Application for Boiler and Pressure Vessel Special Inspector Commission" provided by the division. Additionally, the applicant shall submit a copy of the applicant's current National Board work card with each application.
- **90.9(2)** Expiration. The commission is for no more than one year and ceases when the special inspector leaves employment with the insurance company, or when the commission is suspended or revoked by the labor commissioner. Each commission shall expire no later than June 30 of each year.
- **90.9(3)** *Changes*. The special inspector shall notify the division at the time any of the information on the form or attachments changes.
- **90.9(4)** *Denials.* The labor commissioner may refuse to issue or renew a special inspector's commission for failure to complete an application package, if the applicant or inspector does not hold a National Board commission, or for any reason listed in subrules 90.9(6) to 90.9(8).
- **90.9(5)** *Investigations*. Investigations shall take place at the time and in the places the labor commissioner directs. The labor commissioner may investigate for any reasonable cause. The labor commissioner may conduct interviews and utilize other reasonable investigatory techniques. Investigations may be conducted without prior notice.
- **90.9(6)** *Reasons for probation.* The labor commissioner may issue a notice of commission probation when an investigation reasonably reveals that the special inspector filed inaccurate reports.
- **90.9(7)** Reasons for suspension. The labor commissioner may issue a notice of commission suspension when an investigation reasonably reveals the following:
 - a. The special inspector failed to submit and report inspections on a timely basis;
 - b. The special inspector abused the special inspector's authority;
 - c. The special inspector misrepresented self as a state inspector or a state employee;
 - d. The special inspector used commission authority for inappropriate personal gain;
- e. The special inspector failed to follow the division's rules for inspection of object repairs, alterations, construction, installation, or in-service inspection;
 - f. The special inspector committed numerous violations as described in subrule 90.9(6);
- g. The special inspector used fraud or deception to obtain or retain, or to attempt to obtain or retain, a special inspector commission whether for one's self or another;
 - h. The National Board revoked or suspended the special inspector's work card;
 - i. The division received a certificate of noncompliance; or
- *j.* The special inspector failed to take appropriate disciplinary actions against a subordinate special inspector who has committed repeated acts or omissions listed in paragraphs "a" to "h" of this subrule.
- **90.9(8)** Reasons for revocation. The labor commissioner may issue a notice of revocation of a special inspector's commission when an investigation reveals any of the following:
 - a. The special inspector filed a misleading, false or fraudulent report;
 - b. The special inspector failed to perform a required inspection;
- c. The special inspector failed to file a report or filed a report which was not in accordance with the provisions of applicable standards;
 - d. The special inspector failed to notify the division in writing of any accident involving an object;
 - e. The special inspector committed repeated violations as described in subrule 90.9(7);
- f. The special inspector used fraud or deception to obtain or retain, or to attempt to obtain or retain, a special inspector commission whether for one's self or another;
- g. The special inspector instructed, ordered, or otherwise encouraged a subordinate special inspector to perform the acts or omissions listed in paragraphs "a" to "f" of this subrule;
 - h. The National Board revoked or suspended the special inspector's work card; or

- *i*. The division received a certificate of noncompliance.
- **90.9(9)** *Procedures.* The following procedures shall apply except in the event of revocation or suspension due to receipt of a certificate of noncompliance. In instances involving receipt of a certificate of noncompliance, the applicable procedures of Iowa Code chapter 252J, 261, or 272D shall apply.
- a. Notice of actions. The labor commissioner shall serve a notice on the special inspector by certified mail to an address listed on the commission application form or by other service as permitted by Iowa Code chapter 17A. A copy shall be sent to the insurance company employing the special inspector.
- b. Contested cases. The special inspector shall have 20 days to file a written notice of contest with the labor commissioner. If the special inspector does not file a written contest within 20 days of receipt of the notice, the action stated in the notice shall automatically be effective.
 - c. Hearing procedures. The hearing procedures in 875—Chapter 1 shall govern.
- d. Emergency suspension. Pursuant to Iowa Code section 17A.18A, if the labor commissioner finds that public health, safety or welfare imperatively requires emergency action because a special inspector failed to comply with applicable laws or rules, the special inspector's commission may be summarily suspended.
- e. Probation period. A special inspector may be placed on probation for a period not to exceed one year for each incident causing probation.
- f. Suspension period. A special inspector's commission may be suspended up to five years for each incident causing a suspension.
- g. Revocation period. A special inspector's commission that has been revoked shall not be reinstated for five years.
- h. Concurrent actions. Multiple actions may proceed at the same time against any special inspector.
- *i.* Revoked or suspended commissions. Within five business days of final agency action revoking or suspending a special inspector commission, the special inspector shall forfeit the special inspector's commission card to the labor commissioner.

 [ARC 8283B, IAB 11/18/09, effective 1/1/10]

875—90.10(89) Quality reviews, surveys and audits.

- **90.10(1)** An entity that manufactures or repairs boilers, pressure vessels or related equipment may request quality reviews, surveys or audits from certifying organizations such as the ASME or the National Board. The division is authorized to conduct the quality reviews, surveys or audits. If the division performs the service, the manufacturer or repairer shall pay all applicable expenses.
- **90.10(2)** Quality reviews, surveys and audits for certification to the National Board or ASME standards shall be conducted only by a person or organization designated by the labor commissioner. Any person or organization seeking this designation on behalf of the division shall provide documented evidence of training, examination, experience, and certification for the type of reviews, surveys and audits to be performed. The labor commissioner shall have final authority to determine qualifications and designations.
- a. Assessing quality programs. The division recognizes the ASME and the National Board as qualified designees for conducting quality reviews, surveys and audits that lead to ASME or National Board program certification.
 - b. ISO 9000 assessments. The division recognizes the ASME and the National Board:
- (1) To be acceptable ISO 9000 registrars of quality systems for boilers and pressure vessels and the related pressure-technology equipment industry;
- (2) To certify auditors and lead auditors to the requirements of ISO 10011-2 1991(E), Annex A; and
- (3) To conduct ISO 9000 assessments for the boiler, pressure vessel, and related pressure-technology equipment industry.
- **875—90.11(89) Notification of explosion.** Owners and users of covered objects must report any object explosion by calling (515)281-3647 or (515)281-6533. If the explosion occurs during normal division

operating hours, notification shall occur before close of business on that day. If the explosion occurs when the division office is closed, the notification shall occur no later than close of business on the next division business day. Division hours are 8 a.m. to 4:30 p.m., Monday through Friday, except state holidays.

875—90.12(89) Publications available for review. Pursuant to Iowa Code section 89.5, subsection 3, the standards, codes, and publications adopted by reference in these rules are available for review in the office of the Division of Labor Services, 1000 East Grand Avenue, Des Moines, Iowa.

875—90.13(89) Notice prior to installation. Written notice of intent to install objects subject to the jurisdiction of Iowa Code chapter 89 shall be provided to the labor commissioner at least ten days before installation. Written notice shall be accomplished by completing and submitting to the labor commissioner either:

- 1. The form designated by the labor commissioner, or
- 2. The National Board's Boiler Installation Report, I-1.

875—90.14(89) Temporary boilers. A certificate to operate a temporary boiler shall expire one year from the date of issuance or when the temporary boiler is disconnected. Inspections on temporary boilers that remain in one location longer than one year shall be performed according to the inspection schedule of Iowa Code section 89.3. A temporary boiler that is installed at a different location less than a year since the prior internal inspection of the boiler shall be subjected to a hydrostatic test pursuant to the National Board Inspection Code or to an internal inspection, at the discretion of the inspector.

875—90.15(89) Conversion of a power boiler to a low-pressure boiler. The following requirements apply to the conversion of a power boiler to a low-pressure boiler. The owner shall comply with the requirements of subrule 90.15(1) for each conversion. In addition, the owner shall comply with the requirements of subrule 90.15(2) if the converted object will be located outside of a place of public assembly or with the requirements of subrule 90.15(3) if the converted object will be located in a place of public assembly.

90.15(1) General requirements.

- a. The owner shall provide to the labor commissioner written notice of intent to convert a power boiler to a low-pressure boiler prior to conversion. The required form for a notice of conversion is available at http://www.iowaworkforce.org/labor/boiler inspection http://www.iowaworkforce.org/labor/boil
 - (1) Address, uses, and owner of the building where the boiler is located.
 - (2) The Iowa identification number assigned to the boiler.
 - (3) Name and contact information for the person completing the notice.
- (4) Name and contact information for the contractor or other person planning to perform the conversion.
 - b. Pressure controls shall not exceed 14 pounds per square inch.
 - c. All boiler controls shall comply with ASME CSD-1.
- d. Safety valves and safety relief valves shall be manufactured in accordance with a national or international standard.
- *e.* One or more spring-pop safety valves meeting the following requirements shall be installed on each steam boiler:
 - (1) The valve shall be adjusted and sealed to discharge at a pressure not to exceed 15 psig.
 - (2) The valve capacity shall be certified by the National Board.
- f. The converted boiler shall be subject to post-conversion external inspection to ensure that the requirements of this rule are met.

90.15(2) *Boilers located outside places of public assembly.* A power boiler that was converted to a low-pressure boiler and that is located outside of a place of public assembly shall not be converted back to a power boiler unless the following requirements are met:

- a. The owner shall notify the labor commissioner at least ten days prior to converting the boiler.
- b. The owner shall comply with the editions of ASME Section I and CSD-1 in effect at the time of the second conversion.
- c. The owner shall comply with the version of 875—Chapter 92 in effect at the time of the second conversion.

90.15(3) *Boilers located in places of public assembly.* A power boiler converted to a low-pressure boiler that is located in a place of public assembly shall comply with 875—Chapter 94. [ARC 9232B, IAB 11/17/10, effective 12/22/10]

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These rules are intended to implement Iowa Code chapters 17A, 89, 252J, 261, and 272D.
   [Filed emergency 12/26/97 after Notice 11/19/97—published 1/14/98, effective 1/1/98]
      [Filed emergency 5/4/99 after Notice 3/24/99—published 6/2/99, effective 7/1/99]
            [Filed 3/14/01, Notice 1/24/01—published 4/4/01, effective 5/9/01]
            [Filed 7/29/05, Notice 6/8/05—published 8/17/05, effective 9/21/05]
              [Filed emergency 9/6/05—published 9/28/05, effective 9/21/05]
           [Filed 7/26/06, Notice 5/10/06—published 8/16/06, effective 9/20/06]<sup>§</sup>
         [Filed 11/30/07, Notice 10/24/07—published 12/19/07, effective 1/23/08]
          [Filed 2/19/08, Notice 12/19/07—published 3/12/08, effective 4/16/08]<sup>1</sup>
               [Filed Emergency ARC 7863B, IAB 6/17/09, effective 7/1/09]
   [Filed ARC 8081B (Notice ARC 7865B, IAB 6/17/09), IAB 8/26/09, effective 9/30/09]
   [Filed ARC 8283B (Notice ARC 8082B, IAB 8/26/09), IAB 11/18/09, effective 1/1/10]
  [Filed ARC 9082B (Notice ARC 8694B, IAB 4/21/10), IAB 9/22/10, effective 10/27/10]
  [Filed ARC 9232B (Notice ARC 9087B, IAB 9/22/10), IAB 11/17/10, effective 12/22/10]
   [Filed ARC 9790B (Notice ARC 9511B, IAB 5/18/11), IAB 10/5/11, effective 11/9/11]
   [Filed ARC 0319C (Notice ARC 0207C, IAB 7/11/12), IAB 9/5/12, effective 10/10/12]
   [Filed ARC 0416C (Notice ARC 0322C, IAB 9/5/12), IAB 10/31/12, effective 12/5/12]
   [Filed ARC 0739C (Notice ARC 0647C, IAB 3/20/13), IAB 5/15/13, effective 6/19/13]
   [Filed ARC 1189C (Notice ARC 1015C, IAB 9/18/13), IAB 11/27/13, effective 1/1/14]
   [Filed ARC 1422C (Notice ARC 1333C, IAB 2/19/14), IAB 4/16/14, effective 5/21/14]
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Date corrected IAC Supp. 3/26/08