

**BOILER
AND PRESSURE VESSEL
REGULATIONS**

OF

**THE COLORADO STATE
DIVISION OF
OIL AND PUBLIC SAFETY**

7 C.C.R 1101-5

Effective Date June 15, 2013

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BOILER AND PRESSURE VESSEL RULE
7 CCR 1101-5
Effective June 15, 2013

ARTICLE 1 GENERAL PROVISIONS

Section 1-1 Basis and Purpose

The basis and purpose of this rule is to establish inspection schedules for boilers and pressure vessels, establish inspection and certificate of inspection fees, adopt nationally recognized codes and standards, add or clarify terminology, and add or clarify the duties of owners, users and inspectors in order to improve the efficiencies of the state boiler program and to ensure compliance with the Colorado Boiler and Pressure Vessel Code.

Section 1-2 Technical Rationale

The technical requirements of this rule are generally accepted as national and international standards governing the minimum levels of acceptability for the initial design, fabrication and certification, as well as in-service inspection rating, repair and alteration, and re-rating of boilers and pressures vessels. The adoption of these consistent standards is necessary for the preservation of the public health, safety and welfare of the citizens of Colorado.

Section 1-3 Statutory Authority

The amendments to this rule are created pursuant to §§8-20-101, 9-4-103 and 9-4-109(1)(a) of the Colorado Revised Statutes (CRS).

Section 1-4 Effective Date

These amended rules shall be effective on June 15, 2013

Section 1-5 Codes Incorporated by Reference

1-5-1 Codes incorporated by reference

The following codes are incorporated by reference:

- (a) For the construction of new boilers and pressure vessels, the ASME Boiler and Pressure Vessel Code, sections I, IV, V, VIII-Divisions 1 and 2 and 3, IX, X, 2010 edition, including the 2011 addenda, and B31.1, 2010 edition.
- (b) For in service inspection, repairs, alterations and re-rating of boilers and pressure vessels performed after July 31, 2006:
 - (1) For boilers, pressure vessels and pressure retaining items the NBIC Code, 2011 edition.
 - (2) For pressure vessels used in the petroleum and chemical processing industries, the API/ASME 510, 9TH edition, addenda 1-3;
 - (3) For pressure piping used in the petroleum and chemical processing industries, the API/ASME 570, 2nd edition, addenda 1-4.
- (c) ASME CSD-1, 2012 edition.
- (d) NFPA 85, Boiler and Combustion Systems Hazards Code, 2011 edition.
- (e) NB-371, Accreditation of Owner-User Inspection Organizations (OUIO) Rev 4

1-5-2 Inspection of incorporated codes

Interested parties may inspect the referenced incorporated materials by contacting the Program Manager, Boiler Inspection Section, 633 17th Street, Suite 500, Denver, CO 80202 and/or The State Depository Libraries.

1-5-3 Later amendments not included

This rule does not include later amendments to or editions of the incorporated material.

Section 1-6 Definitions

- (a) Terms in these regulations shall have the same meaning as those found in Title 4 Article 9 of the Colorado Revised Statutes. In addition, unless the context otherwise requires:
- (1) **Alteration - *Alteration*** means any change in the item described on the original Manufactures' Data Report that affects the pressure-containing capability of the boiler or pressure vessel. Non-physical changes, such as an increase in the maximum allowable working pressure (internal or external) or design temperature of a boiler or pressure vessel shall be considered an alteration. A reduction in minimum temperature, such that additional mechanical tests are required, shall also be considered an alteration.
 - (2) **Apartment house - *Apartment house*** means a building with multiple family dwelling units, including condominiums and townhouses, where boilers are located in a common area outside of the individual dwelling units, such as a boiler room. The exemption for apartment houses with fewer than six units refers to the number of units, not the number of units served by a boiler. Individual dwelling units are considered residences, such that any boiler located inside an individual dwelling unit is exempt.
 - (3) **ANSI - *ANSI*** is the American National Standards Institute.
 - (4) **API - *API*** means the American Petroleum Institute.
 - (5) **API certified inspector - *An API Certified Inspector*** is an inspector who is certified by the American Petroleum Institute to perform functions specified in API-510 or API-570.
 - (6) **API-510, Pressure Vessel Inspection Code-** The ***API-510, Pressure Vessel Inspection Code*** is the code for maintenance inspection, repair, alteration and re-rating procedures for pressure vessels used by the petroleum and chemical process industries. API-510 is published by the American Petroleum Institute and is an approved ANSI standard.
 - (7) **API-570, Piping Inspection Code -** The ***API-570, Piping Inspection Code*** is the code for maintenance inspection, repair, alteration and re-rating procedures for process piping used by the petroleum and chemical process industries. API-570 is published by the American Petroleum Institute and is an approved ANSI standard.
 - (8) **ASME CSD-1 - *ASME CSD-1*** means the American national standard entitled Controls and Safety Devices for Automatically Fired Boilers published by ASME.
 - (9) **ASME International - *ASME International*** was formerly the American Society of Mechanical Engineers (ASME).
 - (10) **Boiler, copper tube - A *copper tube boiler*** is a boiler that has water tubes or coils constructed primarily of copper material, requires forced circulation to prevent overheating and failure of the tubes or coils, and has no definitive waterline.

- (11) **Boiler, heating** - A *heating boiler* is a steam or vapor boiler operating at a pressure not exceeding 15 psig or a boiler in which water or other fluid is heated and intended for operation at pressures not exceeding 160 psig or temperatures not exceeding 250 degrees Fahrenheit.
- (12) **Boiler, high temperature** - A *high temperature boiler* is a boiler in which water or other fluid is heated and intended for operation at pressures in excess of 160 psig and temperatures in excess of 250 degrees Fahrenheit.
- (13) **Boiler, electric** - An *electric boiler* is a boiler whose source of heat is electricity.
- (14) **Boiler, unfired** - An *unfired boiler* is a steam or other vapor generating system using heat external from itself, usually from the operation of a processing system or other indirect heat source.
- (15) **Btu - Btu** means British thermal unit.
- (16) **Certificate inspection** - A *certificate inspection* means an inspection performed by an authorized State or Special Inspector, the report of which is used as justification for issuing, withholding or revoking the certificate of inspection.
- (17) **Certificate of inspection** - A *certificate of inspection*, also known as a *certificate of boiler operation*, an *inspection certificate* or an *operations certificate*, is the certificate issued by the state Boiler Inspection Section authorizing the operation of a boiler, pressure vessel or nuclear system until a specific date.
- (18) **Certificate of operation** - See *certificate of inspection*.
- (19) **Condemned** - A *condemned boiler or pressure vessel* is one determined by an Inspector to be so unsafe that further use is prohibited until it is satisfactorily repaired or replaced.
- (20) **CSD-1** - See **ASME CSD-1**.
- (21) **Existing installation** - An *existing installation* includes any boiler, pressure vessel or nuclear component that has received its initial certificate of inspection.
- (22) **Forced circulation water heater** - A *forced circulation water heater* is a water heater requiring forced circulation to prevent overheating and failure of the tubes or coils, and has no definitive waterline.
- (23) **Grace period - Grace period** means the time when a boiler or pressure vessel may legally be operated without a valid certificate of inspection.
- (24) **Hot water storage tank** - A *hot water storage tank* is a closed vessel connected to a water heater used exclusively to contain potable water. When heated by steam or any other indirect means, these storage tanks shall comply with ASME construction requirements if any of the following limitations are exceeded: heat input of 200,000 Btu/hr; water temperature of 210° F; nominal water containing capacity of 120 gal.
- (25) **Inspector - Inspector** means a person who is authorized by the Boiler Inspection Section to perform certificate inspections. *Inspector* refers to either a State Boiler Inspector or a Special Boiler Inspector, unless one or the other is specifically named.
- (26) **Installer -Installer** means a person or company responsible for setting up for use any boiler or pressure vessel required by the Act to be inspected.
- (27) **Jacketed steam kettle** - A *jacketed steam kettle* is a pressure vessel with inner and outer walls that is subject to steam pressure and stress, is used to boil or heat liquids or to cook food, and falls under the scope of Appendix 9 (Jacketed Vessels) or Appendix 19 (Electrically Heated or Gas Fired Jacketed Steam Kettles) of the ASME Boiler and Pressure Vessel Code.

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

(ii) An **indirect fired jacketed steam kettle** is one where the steam within the jacket's walls is generated external to itself, such as from a boiler.

- (28) **MAWP - MAWP** means maximum allowable working pressure.
- (29) **MSHA - MSHA** means the Mine Safety and Health Administration of the U.S. Department of Labor.
- (30) **NBIC -NBIC** means the National Board Inspection Code, also known as ANSI/NB-23.
- (31) **National Board - National Board** means the National Board of Boiler and Pressure Vessel Inspectors.
- (32) **New installation - A new installation** includes any boiler, pressure vessel or nuclear component that has not received its initial certificate of inspection at its current location.
- (33) **NFPA - NFPA** means the National Fire Protection Association.
- (34) **Operations certificate - See certification of inspection.**
- (35) **Out of service - An out-of-service boiler** means one that has been removed from service in accordance with §1-12. A certificate of inspection is not required for an out-of-service boiler or pressure vessel.
- (36) **Owner-User Inspection Organization - An owner-user inspection organization** means an owner or user of pressure-retaining items who maintains a regularly established inspection department, and whose organization and inspection procedures meet the requirements of the National Board rules or API-510 and are acceptable to the Director.
- (37) **Owner-User Inspector - An owner-user inspector** is an inspector who holds a valid National Board Owner-User Commission and who has passed the examination prescribed by the National Board or is an API Certified Inspector under a jurisdictionally approved Owner-User Inspection Organization.
- (38) **Portable Boiler - A portable boiler** is a boiler permanently affixed to a trailer with wheels, being totally self-contained while operating, and not attached to any other object for any reason either by pipe, hose or wire while operating.
- (39) **PRI - See pressure retaining item.**
- (40) **Pressure retaining item - A pressure retaining item, or PRI,** is any boiler, pressure vessel, piping, or material used for the containment of pressure, either internal or external. The pressure may be obtained from an external source, or by the application of heat from a direct source, or any combination thereof.
- (41) **PSI-PSI** means pounds per square inch.
- (42) **PSIG - PSIG** means pounds per square inch gage.
- (43) **Repair -Repair** means the work necessary to restore pressure-retaining items to a safe and satisfactory operating condition.
- (44) **Re-rate - Re-rate** means a change in either the temperature rating or the maximum allowable working pressure rating or both of a boiler or pressure vessel, and shall be considered an alteration.

- (45) **Scrapped** - A *scrapped* boiler is one that has been cut into pieces or damaged to the point it cannot be returned to service.
- (46) **Section I boiler** - A *Section I boiler* is a power boiler falling under the scope of Section I of the ASME Boiler and Pressure Vessel Code.
- (47) **Section IV boiler** - A *Section IV boiler* is a heating boiler or water heater falling under the scope of Section IV of the ASME Boiler and Pressure Vessel Code.
- (48) **Section VIII vessel** - A *Section VIII vessel* is a pressure vessel falling under the scope of Section VIII of the ASME Boiler and Pressure Vessel Code.
- (49) **Stand-by status** - A boiler or pressure vessel is in *stand-by status* when it is not in use but its fuel supply or source of pressure remains connected. A current certificate of inspection is required for a boiler or pressure vessel in stand-by status.
- (50) **Water heater** - A *water heater* is a closed vessel used to supply potable hot water which is heated by the combustion of fuels, electricity or any other source and withdrawn for use external to the system at pressures not exceeding 160 psig, and shall include all controls and devices necessary to prevent water temperatures from exceeding 210 degrees Fahrenheit.

Section 1-7 Code Changes

1-7-1 Miniature boiler

A miniature boiler is any power boiler that does not exceed any of the following:

- (a) 16 inches inside diameter of shell;
- (b) Repealed May 15, 2007;
- (c) Five cubic feet gross volume exclusive of casing and insulation;
- (d) 100 psig maximum allowable working pressure.

1-7-2 Code cases

Code cases approved for use by the American Society of Mechanical Engineers are allowed to be used in the design, fabrication and testing of boilers and pressure vessels provided acceptance is first obtained from the Chief Boiler Inspector.

Section 1-8 Applicability of ASME CSD-1

ASME CSD-1 applies to all boilers and pressure vessels installed, re-located or returned to service on or after January 1, 1993. The pertinent edition of ASME CSD-1 is the one adopted by the Colorado Boiler and Pressure Vessel Code at the installation, re-location, or return to service date.

Section 1-9 Exemptions

Repealed May 15, 2007.

Section 1-10 Duties of Owners-Users

Duties imposed by the Colorado Boiler and Pressure Vessel Code (Code) on the owner or the user may be performed by either, or by any party so authorized by the owner or user. However, if the duty is not performed, the owner shall be considered in violation of the Code requirement.

Section 1-11 Condemning a Boiler

- (a) Conditions which a State or Special Inspector may determine to be unsafe include bypassed safety controls, inoperative safety valves, an excessive gas leak, and any other condition that, in the Inspector's judgment, means the boiler should be condemned.
- (b) The owner or user must shut down the condemned boiler or pressure vessel as directed by the inspector. If neither the owner nor user is available, the Inspector will cause the boiler to be shut down.
- (c) The Inspector will affix to a condemned boiler or pressure vessel a notice that it has been condemned and may not be used until satisfactory repairs are made, as determined by a re-inspection by an authorized State or Special Inspector.

Section 1-12 Removing a Boiler from Service

Boilers removed from service must be done so in a safe manner. This may be accomplished by scrapping the boiler or by putting the boiler into out-of-service status. To safely put a boiler into out-of-service status, physically sever all sources of energy (water, gas, electricity, etc.); cap all fuel lines; and disconnect or remove all electrical lines.

Section 1-13 Exit Requirements

Two means of exit shall be provided for new power boiler rooms exceeding 500 sq. ft. floor area and containing one or more boilers having a fuel capacity of 1,000,000 Btu/hour or more (or equivalent electrical heat input). Each elevation shall be provided with at least two means of egress, each to be remotely located from the other. A platform at the top of a single boiler is not considered an elevation.

Section 1-14 Application for Variance

The application for a variance shall be made on the form provided by the state boiler inspection section.

Section 1-15 Registration Requirements

- (a) All boilers, including reinstalled and second hand, regardless of code of construction, shall be registered with the National Board of Boiler and Pressure Vessel Inspectors (excluding cast iron boilers and non-standard boilers).
- (b) All fired and unfired pressure vessels, regardless of code of construction, shall be registered with the National Board of Boiler and Pressure Vessel Inspectors, except for the following:
 - (1) Vessels installed or re-installed before April 30, 1999;
 - (2) Vessels built to Section VIII, Division 1 of the ASME Boiler and Pressure Vessel Code bearing the "UM" symbol before January 1, 2003.

Section 1-16 Notification Requirements

- (a) The owner, user or installer shall report to the Boiler Inspection Section the location of newly installed or relocated boilers by completing the application form supplied by the Section and submitting it prior to operation. This application form will assure vital information is obtained, proper codes are utilized and timely inspections are scheduled. No fee will be charged for completing this application form.
- (b) The owner, user or insurer of any existing boiler or pressure vessel shall report to the State Boiler Section any boiler that is taken out of service or scrapped within 30 days in the format required by the Section.

Section 1-17 Requirements for Reinstalled Boilers and Pressure Vessels

When a boiler or pressure vessel is moved and reinstalled in this jurisdiction, the attached fittings and appurtenances shall comply with rules and regulations for new installations.

Section 1-18 Pressure Setting Requirements

If any of the other components in the boiler system not otherwise protected (such as valves, pumps, expansion or storage tanks, or piping) have a lesser working pressure rating than the boiler or water heater, the pressure setting for the relief valve(s) on the boiler or water heater shall be based upon the component with the lowest maximum allowable working pressure rating.

Section 1-19 Repairs

- (a) Repairs to pressure relief valves shall be made only by an organization that holds a valid Certificate of Authorization for use of the National Board Pressure Relief Valve Repair "VR" symbol stamp. The initial installation testing and adjustments of a new pressure relief valve on a boiler or pressure vessel are not considered a repair, if made by the manufacturer or assembler of the valve.
- (b) Repairs and alterations to boilers and pressure vessels shall be made in accordance with the regulations set forth in the National Board Inspection Code or the API Pressure Vessel Inspection Code as applicable (API-510).

Section 1-20 Forced Circulation Water Heaters

- (a) All water tube or coil-type water heaters, requiring forced circulation to prevent overheating and failure of the tubes or coils, shall have an accepted safety control to prevent burner operation at a flow rate inadequate to protect the water heater unit against overheating, at all allowable firing rates. This safety control shall shut down the burner and prevent restarting until an adequate flow is restored. Positive means shall be provided to determine during testing that the accepted safety control has functioned upon an inadequate flow condition.
- (b) All water tube or coil-type water heaters, requiring forced circulation to prevent overheating and failure of the tubes or coils, shall have a manually operated remote shutdown switch or circuit breaker and shall be located just outside the water heater 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 water heater 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 water heater room, there should be a switch located at each door. The emergency shutdown switch or circuit breaker must disconnect all power to the burner controls.

ARTICLE 2 INSPECTIONS

Section 2-1 Inspection Schedule

The following external inspection schedules are established pursuant to §9-4-103(3) CRS:

- (a) All new and reinstalled boilers shall receive an inspection by a State Inspector, which shall be the certificate of boiler and pressure vessel inspection.
- (b) Except as permitted in (1) below, power boilers and high-temperature water boilers shall receive a certificate inspection annually which shall be an internal inspection where construction permits; otherwise, it shall be as complete an inspection as possible. Such boilers shall also be inspected externally annually while under normal operating conditions.
 - (1) Alternative internal inspection requirements:
 - (A) Fully attended power boilers and high-temperature boilers may be extended to thirty-six (36) months if the following requirements are met and approved by the Chief Boiler Inspector:
 - (1) Continuous boiler water treatment under the direct supervision of persons trained and experienced in water treatment for the purpose of controlling and limiting corrosion and deposits.
 - (2) Record-keeping available for review, showing:
 - (i) The date and time the boiler is out of service and the reason therefore.
 - (ii) Daily analysis of water samples that adequately show the conditions of the water and elements or characteristics that are capable of producing corrosion or other deterioration to the boiler or its parts.
 - (3) Controls, safety devices, instrumentation, and other equipment necessary for safe operation are up-to-date, in service, calibrated, and meet the requirements of an appropriate safety code for that size boiler, such as NFPA 85, ASME CSD-1 Controls and Safety Devices for Automatically Fired Boilers, National Board Inspection Code ANSI/NB-23, jurisdictional requirements, and are not compromised.
 - (2) Inspection intervals beyond thirty-six (36) months may be granted at the discretion of the Chief Boiler Inspector.
- (c) Low-pressure boilers, water heaters, and direct-fired jacketed steam kettles covered by these rules and regulations shall receive a certificate inspection biennially, with an internal inspection at least every two years where construction permits.
 - (1) Steam or vapor boilers shall have an external inspection and an internal inspection every two years where construction permits;
 - (2) Hot water heating and hot water supply boilers shall have an external inspection biennially and, where construction permits, an internal inspection at the discretion of the Inspector;
 - (3) Water heaters, including hot water storage tanks, shall have an external inspection every two years which shall include the function of all controls and devices;

- (4) Indirect-fired jacketed steam kettles shall be inspected when the boiler providing steam to the kettle is inspected;
 - (5) Hot water storage tanks shall be inspected when the hot water heating boiler or hot water supply boiler is inspected.
- (d) Based upon documentation of such actual service conditions by the owner or user of the operating equipment, the Chief Boiler Inspector may, at his/her discretion, permit variations in the inspection frequency requirements as provided in the Act.
- (e) Historical boilers, defined as steam boilers of riveted construction, preserved, restored, or maintained for hobby or demonstration use, shall be subjected to an initial inspection followed by a certificate inspection ever three (3) years thereafter if stored inside a shelter and annually if stored outdoors. The initial inspection shall include ultrasonic thickness testing of all pressure boundaries. All thinned areas shall be monitored and recorded on the inspection report both to the owner and Boiler Inspection Section's electronic copy in the comments section.
- (f) When a boiler, water heater, or direct-fired jacketed steam kettle that is required to have an operating certificate has a noted deficiency or a requirement for repair from an inspector authorized to inspect boilers and/or pressure vessels in the State of Colorado, the Inspector shall re-inspect the pressure retaining item within 90 days from the date the requirement or deficiency was first noted. The Inspector may omit this re-inspection at his/her discretion.

Section 2-2 Inspections of Exempt Vessels

State or Special Inspectors may perform an inspection of exempt boilers or pressure vessels, upon receiving a written request from the owner and depending upon inspector availability. The inspector will notify the owner of any safety code violations. An inspection fee and a certificate fee will be charged according to the schedule established by Article 3 of this rule.

Section 2-3 Inspection of Insured Vessels by a State Inspector

If an insurance company has not submitted to the Boiler Inspection Section an inspection report of an insured boiler or pressure vessel by 60 days after the expiration date of the certificate of inspection, the Director may send a State Boiler Inspector to perform the certificate inspection. Such an inspection by a State Boiler Inspector becomes the certificate inspection, regardless of whether the Special Inspector also performs the inspection, and will be invoiced at the state inspection rate.

Section 2-4 Submission of Inspection Reports by Special Inspectors

- (a) For all inspections performed before January 1, 2003, Special Inspectors shall file their inspection reports either by entering data into the Division's web-based inspection entry form or by submitting a paper inspection report in the format recommended by the National Board (Forms NB-6 and NB-7).
- (b) For all inspections performed on or after January 1, 2003, Special Inspectors shall file their inspection reports either by entering data into the Division's web-based inspection entry form or by electronic transfer of data between the insurance company's database and the Division's database. If the electronic transfer of data option is selected, the insurance company is responsible for all costs to develop and implement this functionality.
- (c) For all inspections performed on or after January 1, 2003, Special Inspectors shall submit an inspection report in the required format for all internal and external inspections. The inspection report shall indicate whether or not the inspection is a certificate inspection.

Section 2-5 Inspections Required before Shipment to Colorado

Before a new power boiler or a used or secondhand boiler or pressure vessel may be shipped for installation in this jurisdiction, an inspection must be made by an Inspector authorized by this jurisdiction or by any Inspector holding a valid National Board Commission. The purpose of this inspection is to assess the integrity of the vessel and assure it meets the original design specification. Prior to installation, an application shall be filed by the owner or user of the boiler or pressure vessel with the boiler inspection section for approval.

ARTICLE 3 CERTIFICATES OF INSPECTION

Section 3-1 Valid, Current Certificates Required

A valid certificate of inspection is required for all boilers and pressure vessels that are included in the inspection fee schedule established by this rule and that are in operational or stand-by status.

Section 3-2 Exemptions

A certificate of inspection is not required for the following:

- (a) A certificate of inspection is not required for a boiler or pressure vessel that is out of service or scrapped, as defined by this rule.
- (b) A certificate of inspection is not required for pressure vessels inspected by an approved owner-user inspection organization.

Section 3-3 Grace Periods

- (a) A boiler or pressure vessel may legally be operated without a current, valid certificate of inspection in the following situations:
 - (1) A new boiler or pressure vessel that has received its initial inspection by a State Inspector, and
 - (i) either no violations were noted or proper notice has been made that all noted violations have been corrected, and
 - (ii) a cease and desist order has not been issued for non-payment of invoiced inspection fees;
 - (2) An existing boiler whose certificate has expired because the boiler was not timely inspected, provided the owner or owner's representative has not hindered the performance of that inspection;
 - (3) An existing boiler that has received its certificate inspection by a State or Special Inspector, and
 - (i) either no violations were noted or proper notice has been made that all noted violations have been corrected, and
 - (ii) a cease and desist order has not been issued for non-payment of invoiced inspection fees;
- (b) The Chief Boiler Inspector may extend the grace period for good cause and provided there is no undue risk to public safety.
- (c) No grace period applies for any boiler or pressure vessel when the certificate of inspection has been suspended for non-compliance with safety requirements of the Colorado Boiler and Pressure Code.

Section 3-4 Inspection Fees

- (a) Fees associated with the certificate of boiler or pressure vessel operation are imposed pursuant to §9-4-109(1)(a) CRS.
- (b) Repealed December 13, 2010.
- (c) The disconnection inspection fee shall be imposed when a State Inspector performs the inspection either at the request of the owner or user or because the owner or user failed to properly notify the boiler inspection section that the boiler had been taken out of service and there are no other boilers or pressures vessels at the location for which a certificate inspection is due.
- (d) The following inspection fee schedule applies to all inspections performed on or after November 30, 2011.

	Inspection performed by State Boiler Inspector	Inspection performed by Special Boiler Inspector
Certificate inspection of a new boiler after installation is completed	\$100	N.A.
Annual internal (waterside) certificate inspection of an existing ASME Section I Power boiler (certificate inspection as authorized by director)		
≥ 5,000,000 btu/hr input	\$100	\$10
≥ 1,000,000 but < 5,000,000 btu/hr input	\$85	\$10
< 1,000,000 btu/hr input	\$70	\$10
Annual external (fireside) certificate inspection of an existing ASME Section I Power boiler where construction does NOT permit an internal inspection		
≥ 5,000,000 btu/hr input	\$85	\$10
≥ 1,000,000 but < 5,000,000 btu/hr input	\$75	\$10
< 1,000,000 btu/hr input	\$65	\$10
Annual external, non-certificate, in-service inspection of an existing ASME Section I Power boiler	\$50	\$10
Biennial (2 yr) external certificate inspection of all ASME Section IV Heating boilers		

	Inspection performed by State Boiler Inspector	Inspection performed by Special Boiler Inspector
≥ 5,000,000 btu/hr input	\$85	\$10
≥ 1,000,000 but < 5,000,000 btu/hr input	\$75	\$10
< 1,000,000 btu/hr input	\$65	\$10
Water heaters inspected as boilers (2 yr external certificate inspection) due to BTU input, capacity (gallons), or temperature	\$35	\$10
External certificate inspection (2 yr) of direct-fired jacketed steam kettles	\$35	\$10
External certificate inspection of exempt boilers and pressure vessels	\$85	\$0
2 nd and subsequent re-inspection of red-tagged boilers	\$85	\$0
External inspection of a historical boiler (36 month certificate)	\$85	\$10
Internal inspection of a historical boiler (36 month certificate)	\$85	\$10

(e) The certificate of boiler operation issuance fee is \$15 for each certificate inspection performed by a State or Special Inspector.

Section 3-5 Pro-Rating of Fees and Certificates

If a certificate inspection is performed late, the invoiced fees and the expiration date of the certificate of inspection may be pro-rated:

- (a) The invoice will bill for the time period beginning with the inspection date of the expired certificate and ending with the last day of the month when the next required certificate inspection is due. The pro-rated amount will be calculated according to §9-4-109(2) CRS.
- (b) The certificate of inspection will begin with the inspection date of the expired certificate and end with the last day of the month when the next required certificate inspection is due.

ARTICLE 4 CEASE AND DESIST ORDERS

Section 4-1 Effective Date

The provisions of this article apply to all inspections performed on or after January 1, 2003.

Section 4-2 Required Notice

- (a) Before the Director issues a cease and desist order pursuant to §9-4-108(2), except in a situation involving a condemned boiler or pressure vessel, the Director shall first notify the owner of the boiler or pressure vessel by certified mail, return receipt requested. The notice shall specify the infraction and the date by which it must be corrected to prevent the issuance of the cease and desist order.
- (b) Condemnation of a boiler or pressure vessel pursuant to §9-4-105(3) shall constitute sufficient notice to cease and desist operation of the boiler or pressure vessel, such that no further notice by the Director is required.

Section 4-3 Exclusions

The Chief Boiler Inspector shall not issue a cease and desist order for a boiler or pressure vessel operated without a valid certificate of inspection if the sole reason for failure to have the certificate of inspection is that the boiler or pressure vessel was not inspected timely.

Section 4-4 Requirements

The cease and desist order shall command that use of the boiler or pressure vessel shall be discontinued until any violation noted pursuant to §9-4-108(2) has been corrected. In the case of a condemned boiler or pressure vessel, a re-inspection by a State or Special Inspector must be performed satisfactorily before the boiler or pressure vessel may be operated.

Section 4-5 Penalty for Non-compliance

Any owner or user who operates a boiler or pressure vessel in violation of a Cease and Desist Order shall be subject to the penalties prescribed by Colorado Revised Statute 9-4-108(4).

ARTICLE 5 OWNER-USER INSPECTION ORGANIZATIONS

Section 5-1 Requirement

- (a) Any person, firm, partnership, or corporation operating boilers or pressure vessels in this jurisdiction may seek approval and registration as an owner-user inspection organization by filing an application with the Director on the prescribed forms.
- (b) The applicant shall show the name of the organization and its principal address in the jurisdiction, and the name and address of the person or persons having supervision over inspections made by said organization on the application and registration. The applicant shall report changes in supervisory personnel to the director within 30 days after any such change.

(c) Each owner-user inspection organization shall:

- (1) Conduct inspections of its non-exempt boilers and pressure vessels, utilizing only qualified inspection personnel;
 - (2) Retain on file at the location where equipment is inspected, a true record or copy of the report of each inspection signed by the owner-user inspector who made the inspection;
 - (3) Promptly notify the Director of any boiler or pressure vessel that does not meet the requirements for safe operation;
 - (4) Maintain inspection records that include a list of non-exempt boilers and pressure vessels, showing the serial number and such abbreviated description as may be necessary for identification, the date of the last inspection of each unit, the approximate date of the next inspection, and documentation of all repairs. Such inspection records shall be readily available for examination by the Director, the Chief Inspector, or their designee during business hours;
 - (5) Transmit a statement annually to the Director, on a date mutually agreed upon. Such statement shall be signed by the individual having supervision over the inspections made during the period covered. The statement shall include the number of vessels inspected during the year and shall certify that each inspection was conducted in accordance with the inspection requirements provided by the Colorado Boiler and Pressure Vessel Rule;
- (d) A state issued certificate of inspection is required for boilers and pressure vessels inspected by an owner-user inspection organization when all of the requirements in this section are met.
- (e) An individual or organization performing an inspection pursuant to this section shall have liability insurance appropriate for the size and scope of the relevant inspection.

ARTICLE 6 ACCIDENT REPORTS AND INVESTIGATIONS

Section 6-1 Reporting accidents

- (a) The owner or user shall notify the State Boiler Inspection Section within 24 hours of the explosion of any boiler or pressure vessel, or of any accident involving a boiler or pressure vessel that involves bodily injury or death to any person. The initial accident report may be by telephone (303-318-8484), fax (303-318-8534) or e-mail (cdle_oil_inspection@state.co.us).
- (b) If the initial report is not on the form required by the State Boiler Section, that form must be completed and submitted within seven (7) days of the explosion.

Section 6-2 Prohibition against Removal of Boiler or Pressure Vessel

In the event of an explosion, personal injury or death, the boiler, pressure vessel, power piping and any associated parts shall not be removed or disturbed before permission has been given by the Director except for the purpose of saving human life or limiting consequential damage.

Section 6-3 Investigation of Accidents

The Director shall investigate any accident or explosion reported to the Division to determine the cause, if possible, and shall maintain a record of all such reports and investigations.