# COLORADO DEPARTMENT OF LABOR AND EMPLOYMENT

# **DIVISION OF OIL AND PUBLIC SAFETY**

# **BOILER AND PRESSURE VESSEL REGULATIONS**

# 7 C.C.R. 1101-5

Effective: July 1, 2017



| ARTICLE 1 GENERAL PROVISIONS                  | <u></u> 6  |
|---|------------|
| ARTICLE 2 INSPECTIONS                         | <u></u> 16 |
| ARTICLE 3 CERTIFICATE OF INSPECTION           | <u></u> 19 |
| ARTICLE 4 INSPECTION AND CERTIFICATE FEES     | 23         |
| ARTICLE 5 OWNER-USER INSPECTION ORGANIZATIONS | <u></u> 25 |
| ARTICLE 6 ACCIDENT REPORTS AND INVESTIGATIONS | <u></u> 26 |
| ARTICLE 7 ENFORCEMENT                         | <u></u> 27 |

\_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

ARTICLE 1

| Section 1 1        | Basis and Purpose                | Page 1 |
|--------------------|----------------------------------|--------|
| Section 1 2        | Technical Rationale              | Page 1 |
| Section 1-3        | Statutory Authority              | Page 1 |
| Section 1-4        | Effective Date                   | Page 1 |
| Section 1-5        | Codes Incorporated by Reference  | Page 1 |
| <del>\$151</del>   | Codes Incorporated by Reference  | Page 1 |
| <del>§1-5-2</del>  | Inspection of incorporated codes | Page 2 |
| <del>§1 5 3</del>  | Later amendments not included    | Page 2 |
| Section 1-6        | Definitions                      | Page 2 |
| Section 1-7        | Code Changes                     | Page 5 |
| <u></u>            | Miniature boiler                 | Page 5 |
| <del>{§1 7 2</del> | Code cases                       | Page 5 |
| Section 1-8        | Applicability of ASME CSD-1      | Page 5 |
| Section 1-9        | Exemptions – Repealed 5/15/07    |        |
| Section 1-10       | Duties of Owners Users           | Page 5 |
| Section 1 11       | Condemning a Boiler              | Page 6 |
| Section 1-12       | Removing a Boiler from Service   | Page 6 |
| Section 1-13       | Exit Requirements                | Page 6 |
| Section 1-14       | Application for Variance         | Page 6 |
| Section 1-15       | Registration Requirements        | Page 6 |
| Section 1-16       | Notification Requirements        | Page 6 |

| Section 1-17 | Requirements for Reinstalled Boilers and Pressure Vessels | Page 7 |
|--------------|---|--------|
| Section 1-18 | Pressure Setting Requirements                             | Page 7 |
| Section 1-19 | Repairs .   | Page 7 |
| Section 1-20 | Forced Circulation Water Heaters                          | Page 7 |

#### ARTICLE 2 -INSPECTIONS

| Section 2-1 | Inspection Schedule                                    | Page 7 |
|-------------|--|--------|
| Section 2-2 | Inspections of Exempt Vessels                          | Page 9 |
| Section 2-3 | Inspections of Insured Vessels by a State Inspector    | Page 9 |
| Section 2-4 | Submission of Inspection Reports by Special Inspectors | Page 9 |
| Section 2-5 | Inspections Required before Shipment to Colorado       | Page 9 |

ARTICLE 3

| CEDTIEICATES        |                    |
|---------------------|--------------------|
| <b>ULIVITION LO</b> | OF HIGH LOHION III |

| Section 3-1 | Valid, Current Certificates Required | Page 9     |
|-------------|--------------------------------------|------------|
| Section 3-2 | Exemptions                           | Page 9     |
| Section 3-3 | Grace Periods                        | Page 10    |
| Section 3-4 | Inspection Fees                      | Page 10-11 |
| Section 3-5 | Pro Rating of Fees and Certificates  | Page 12    |

ARTICLE 4

CEASE AND DESIST ORDERS

|  | Section 4-1 | Effective Date | <del>Page 12</del> |
|--|-------------|----------------|--------------------|
|--|-------------|----------------|--------------------|

| Section 4-2 | Required Notice            | Page 12 |
|-------------|----------------------------|---------|
| Section 4-3 | Exclusions                 | Page 12 |
| Section 4-4 | Requirements               | Page 12 |
| Section 4-5 | Penalty for Non-compliance | Page 12 |

ARTICLE 5

OWNER USER ORGANIZATIONS

| Section 5-1 | Requirements |  |
|-------------|--------------|--|
|             |              |  |

ARTICLE 6 ACCIDENT REPORTS AND INVESTIGATIONS

| Section 6-1 | Reporting accidents                                      | Page 13 |
|-------------|--|---------|
| Section 6-2 | Prohibition against Removal of Boiler or Pressure Vessel | Page 13 |
| Section 6-3 | Investigation of Accidents                               | Page 13 |

[Build new automated TOC]

#### DIVISION OF OIL AND PUBLIC SAFETY -BOILER INSPECTION SECTION 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 these rule regulations is are to establish construction, installation, inspection, maintenance schedules and repair requirements 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, installers and inspectors in order to ensure the safe operation of boilers and pressure vessels in Colorado 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<u>these regulations</u> 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 these regulations 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 <u>rules-regulations</u> shall be effective on <u>June 15, 2013 July 1, 2017</u>, and <u>supersedes all</u> prior editions. The prior editions of these regulations were effective June 15, 2013, March 30, 2012, November 30, 2011, April 14, 2011, March 11, 2011, December 13, 2010, December 1, 2008 and December 1, 2002.

#### Section 1-5 Codes Incorporated by Reference

#### 1-5-1 Codes incorporated by reference

(a) The following codes are incorporated by reference:

- (a1) For the construction of new boilers and pressure vessels, the <u>American Society of</u> <u>Mechanical Engineers (ASME)</u> Boiler and Pressure Vessel Code, <u>sections Sections</u> I, IV, V, VIII-Divisions 1 and 2 and 3, IX, X, <u>2010-2015</u> edition, <u>including the 2011 addenda</u>, and <u>ASME</u> B31.1, <u>Power Piping</u>, <u>2010-2016</u> edition.
- (b2) For <u>installation</u>, in-service inspection, repairs, and alterations and re-rating of boilers, and pressure vessels and pressure-retaining items described in the applicable codes or <u>clarifying instruction issued by the dDirector performed after July 31, 2006</u>:
  - (1<u>A</u>) For boilers, pressure vessels and pressure pressure-retaining items, the <u>National</u> <u>Board Inspection Code (NBIC)-Code</u>, <u>2011-2017</u> edition.
  - (2<u>B</u>) For pressure vessels used in the petroleum and chemical processing industries, the API/ASME 510, 9TH-9th edition, addenda 1-3;.

- (3C) For pressure piping used in the petroleum and chemical processing industries, the API/ASME 570, 2nd edition, addenda 1-4.
- (e<u>3</u>) For the assembly, installation, maintenance, and operation of controls and safety devices, ASME CSD-1, <u>2012-2015</u> edition.
  - (A) ASME CSD-1 applies to all boilers 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 Regulations at the installation, relocation, or return to service date.
- (d4) NFPA 85, Boiler and Combustion Systems Hazards Code, 2011-2015 edition.
- (e5) NB-371, Accreditation of Owner-User Inspection Organizations (OUIO) Rev 48.

#### 1-5-2 Inspection of incorporated codes

(b) Interested parties may inspect review the referenced incorporated materials by contacting the Program Manager, Boiler Inspection SectionProgram, 633 17<sup>th</sup> Street, Suite 500, Denver, CO 80202-and/or The State Depository Libraries.

#### 1-5-3 Later amendments not included

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

- (d) Code cases approved for use by the American Society of Mechanical EngineersASME are allowed to be used in the design, fabrication and testing of boilers and pressure vessels provided acceptance is first obtained from the Director.
- (e) The application for a variance to the codes and standards listed above or to these regulations shall be made on the form provided by the Director.

#### 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 <u>Alteration means any Any</u> change in the item described on the original Manufacturers' Data Report that affects the pressure-containing capability of the boiler or pressure vessel. Nonphysical 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 <u>A</u> 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 ANSI is tThe American National Standards Institute.
- (4) API API means tThe American Petroleum Institute.
- (5) API-API-certified inspector -An API Certified Inspector is aAn 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 \$\overline{T}\$ he 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 tThe 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 - <u>ASME CSD-1 means t</u>he <u>American</u> 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).

Boiler, ASME Section I - A boiler falling under the scope of Section I of the ASME Boiler and Pressure Vessel Code. These are boilers in which steam or vapor is generated at a pressure more than 15 psig for use external to itself; or high temperature water boiler intended for operation at pressures exceeding 160 psig and/or temperatures exceeding 250 degrees Fahrenheit.

Boiler, ASME Section IV - A boiler or water heater falling under the scope of Section IV of the ASME Boiler and Pressure Vessel Code. These are steam boilers for operation at pressures not exceeding 15 psi, or hot water heating / hot water supply boilers for operation at pressures not exceeding 160 psi or temperatures not exceeding 250 degrees Fahrenheit.

(10) Boiler, copper <u>water tube</u> - A copper tube boiler is a boiler that has water tubes or coils which contain the heating medium constructed primarily of copper or steel material and include but are not limited to the following general attributes:, requires forced circulation to prevent overheating and failure of the tubes or coils, and has no definitive waterline.

ASME Section IV water tube boiler requires forced circulation to prevent overheating and failure of the tubes or coils and has no definitive waterline.

ASME Section I water tube boiler may not require forced circulation and may or may not have a definitive waterline.

Boiler, electric - A boiler whose source of heat is electricity.

- (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 high pressure 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.

Boiler, hot water supply – A boiler constructed to ASME Section IV that furnishes hot water to be used externally to itself at a pressure less than or equal to 160 psig or a temperature less than or equal to 250 degrees Fahrenheit at or near the boiler outlet.

(13) Boiler, electric - An electric boiler is a boiler whose source of heat is electricity.

Boiler, miniature - Any power boiler that does not exceed any of the following:

- 16 inches inside diameter of shell;
- 20 square feet of heating surface
- (c) Five cubic feet of gross volume exclusive of casing and insulation;

• (d)-100 psig maximum allowable working pressure-

Boiler, portable or moveable - An ASME constructed boiler permanently affixed to a trailer with wheels or skid-mounted, being that is totally self-contained while operating, and not attached to any other object for any reason either by pipe, hose or wire while operating.

Boiler, power --- See Boiler, ASME Section I.

- Beiler, ASME Section I A boiler falling under the scope of Section I of the ASME Boiler and Pressure Vessel Code. These are boilers in which steam or vapor is generated at a pressure more than 15 psig for use external to itself; or high temperature water boiler intended for operation at pressures exceeding 160 psig and/or temperatures exceeding 250 degrees Fahrenheit.
- Boiler, ASME Section IV A boiler or water heater falling under the scope of Section IV of the ASME Boiler and Pressure Vessel Code. These are steam boilers for operation at pressures not exceeding 15 psi, or hot water heating / hot water supply boilers for operation at pressures not exceeding 160 psi or temperatures not exceeding 250 degrees Fahrenheit.
- (14) Boiler, unfired An unfired boiler is aA steam or other vapor generating system using heat external from itself, usually from the operation of a processing system or other indirect heat source.
- Boiler, water tube A boiler that has water tubes or coils which contain the heating medium constructed primarily of copper or steel material and include but are not limited to the following general attributes:.
  - ASME Section IV water tube boiler requires forced circulation to prevent overheating and failure of the tubes or coils and has no definitive waterline.
  - ASME Section I water tube boiler may not require forced circulation and may or may not have a definitive waterline.
- (15) Btu Btu means-British thermal unit.
- (16) Certificate inspection <u>A certificate inspection means aA</u>n 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.

<u>Certificate inspection, initial</u> - The certificate inspection conducted by a State Inspector when a new or relocated boiler is being placed in service.

- (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 SectionDirector 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.
- Director the Director of the Colorado Department of Labor and Employment, Division of Oil and Public Safety or his or her designee.
- (21) Existing installation An existing installation includes a<u>A</u>ny boiler, <u>or</u> 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 tThe 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 waterregulated boiler. 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 <u>Heat</u> input of 200,000 Btu/hr;
  - water Water temperature of 210° F;
  - <u>nominal-Nominal water-water-</u>containing capacity of 120 gal-
- (25) Inspector, <u>State</u> <u>A</u> <u>Inspector means a person who is employed and authorized by the Boiler Inspection SectionDirector</u> to perform certificate inspections. <u>Inspector refers to either a State Boiler Inspector or a Special Boiler Inspector, unless one or the other is specifically named.</u>
- Inspector, Owner-User A person 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.
- Inspector, Special A person employed by an insurance company licensed to sell or provide insurance for boilers or pressure vessels in Colorado<del>, and</del> who holds a valid commission as inspector issued by the National Board of Boiler and Pressure Vessel Inspectors, and is authorized by the Director to inspect boilers insured by their his or her employer.
- (26) Installer -Installer means aA person or company responsible for setting up for use any regulated 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.
  - (ia) 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.
  - (iib) 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 mMaximum allowable working pressure.
- (29) MSHA MSHA means tThe Mine Safety and Health Administration of the U.S. Department of Labor.
- (30) NBIC -NBIC means tThe National Board Inspection Code, also known as ANSI/NB-23.
- (31) National Board National Board means tThe National Board of Boiler and Pressure Vessel Inspectors.
- (32) New installation A *new installation* includes a<u>A</u>ny boiler, <u>or</u> pressure vessel or nuclear component that has not received its initial certificate of inspection at its current location.
- (33) NFPA NFPA means tThe 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 <u>§Section</u> 1-12\_8 of these regulations. 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-Pressure-retaining item <u>A pressure retaining item, or PRI, is aAny</u> 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.
- Pressure Vessel A container other than a boiler or piping used for the containment of pressure. -See also Section VIII vessel.
- (41) PSI-PSI means pPounds per square inch.
- (42) PSIG PSIG means pPounds per square inch gage.
- (43) Repair -Repair means the wWork necessary to restore pressure-retaining items to a safe and satisfactory operating condition.
- (44) Re-rate <u>Re-rate means a A</u> change in <u>either</u> the temperature rating, <u>or</u> the maximum allowable working pressure rating, or both, of a boiler or pressure vessel, <u>and that</u> 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 constructed to ASME Section VIII typically used for expansion or cushion tank or potable water storagefalling 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, Service or domestic-type - A water heater is a closed vessel constructed to ASME Section IV 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. This system operates at 200,000 BTU per hour input or more and has a capacity of 120 gallons or more.

#### Section 1-7 Code Changes

**1-7-1 Miniature boiler**[moved to definitions]

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 1-7 Scope[added from scope in statute]

These regulations apply to all boilers as listed in Section 1-7(a), as defined in Section 1-6, except those listed in Section 1-7(b).

(a) Boilers and pressure vessels as listed in the scope of ASME Sections I, IV and VIII.

(b) The following are not included in the scope of these regulations:

(1) Boilers owned or operated by the federal government.

(2) Locomotive boilers of carriers subject to the Federal Locomotive Inspection Act.

(3) Boilers located in private residences.

(4) Boilers located in apartment houses having less than six family units.

(5) Boilers in any city where city boiler inspectors, record-keeping, and inspection codes are comparable to the sState program; and whoseere the program has been reviewed and recommended by the National Board; and approved by the Director upon application to the dDirector with submission of proof of such comparability.

(6) Service and domestic-type water heaters that:

(A) Have less than 200,000 BTU per hour input;.

(B) Have nominal water-containing capacity of less than 120 gallons;.

(C) Are operated at less than 210 edegrees Fahrenheit.

(7) A hot-water supply storage tank heated by steam or other indirect means meeting the parameters listed in (6) of this Section.

#### 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 <u>Regulations</u> 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 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 reinspection by an authorized State or Special Inspector.

#### Section 1-12 8 Removing a Boiler from Service

- (a) 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.
- (b) Prior to placing a boiler back in service, or when a boiler is moved and reinstalled, the boiler shall:
  - (1) Comply with currently--adopted codes and standards in these regulations or be upgraded as determined by the Director;.
  - (2) Comply with rules and regulations for new installations;.
  - (3) Successfully pass an inspection conducted by a sState boiler inspector.

#### 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 1-15-9 Registration Requirements

- (a) All boilers, including reinstalled and <u>second-second-hand boilers</u>, 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 1-16-10 Notification Requirements

- (a) The owner, user or installer shall report to the Boiler Inspection Section Director the location of previously unreported, newly-newly-installed or relocated boilers by completing the application form supplied by the Section-Director 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 <u>State Boiler</u> <u>SectionDirector</u> any boiler that is taken out of service or scrapped within 30 days in the format required by the <u>SectionDirector</u>.

#### 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 [recommend deleting this section because the requirement exceeds the scope of the boiler proper]

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 11 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 in accordance with the regulations set forth in the National Board Inspection Code. 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) <u>Welded Rr</u>epairs and alterations to boilers and pressure vessels shall be made <u>only by an</u> <u>organization that holds a valid Certificate of Authorization for use of the National Board Repair "R"</u> <u>symbol stamp and be made</u> in accordance with the regulations set forth in the National Board Inspection Code or the API Pressure Vessel Inspection Code (API-510), as applicable (API-510).
- (c) Repairs to pressure--retaining items described in Section 1-5 (a)(2) of these regulations, that do not requiring inspector involvement, shall be made only by an organization with a written quality system manual enlisting the features of a quality system described within the NBIC or clarifying instruction by the Director.

#### Section 1-20-12 Forced-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.

#### (a) All water tube or coil-type water heaters, requiring forced circulation shall have the following:

- (1) 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.
- (2) A manually--operated remote shutdown switch or circuit breaker which shall be located just outside the water heater room door and marked for easy identification. If the potential for tampering exists, the switch shall be located just inside the door. If there is more than one door to the water heater room, there shall be a switch located at each door. The emergency shutdown switch or circuit breaker must:

(A) dDisconnect all power to the burner controls.

(B) bBe wired in series with all safety controls of the boiler circuit.

(C) aAllow circulation pumps to continue running.

## **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 <u>initial certificate</u> inspection by a State Inspector.<u>- Upon</u> successful <u>completion of installation</u>, completion of <u>this</u> inspection and payment of fees, the Director shall issue a, which shall be the certificate of boiler and pressure vessel inspection.

(b) Pursuant to 9-4-108 CRS, all owners or responsible parties of regulated boilers shall allow access for inspection of a boiler as requested by a State or Special Inspector.

- (cb) Except as permitted in (bc)(1) below of this Section, 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 on an annually frequency while under normal operating conditions.
  - (1) Alternative internal inspection requirements:
    - (A) Fully-The inspection frequency for fully-attended power boilers and high-temperature boilers may be extended to <u>thirty-six (36)</u> months if the following requirements are met and approved by the <u>Chief Boiler InspectorDirector</u>:
      - (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, or jurisdictional requirements, and are not compromised.
    - (2B) Inspection intervals beyond greater than thirty-six (36) months may be granted at the discretion of the Chief Boiler InspectorDirector.
- (de) <u>ASME Section IV</u>Low-pressure boilers, water heaters, and direct-fired jacketed steam kettles covered by these rules and regulations shall receive a certificate inspection bienniallyevery two years, with an internal inspection at least every two years the discretion of a State or Special Inspector, where construction permits.
  - Steam or vapor boilers shall have an external inspection and <u>or</u> an internal inspection every two years where construction permits; .

- (2) Hot water heating and hot water supply boilers shall have an external inspection biennially every two years and, where construction permits, an internal inspection at the discretion of the <u>State or Special</u> Inspector;.
- (3) Water heaters, including hot water storage tanks, shall have an external inspection every two years which shall include <u>an inspection of</u> 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, although no certificate of inspection shall be issued by the Director;
- (5) Hot water storage tanks shall be inspected when the hot water heating boiler or hot water supply boiler is inspected, <u>although no separate certificate of inspection will issued by the</u> <u>Director</u>.
- (<u>ed</u>) Based upon documentation of such actual service conditions by the owner or user of the operating equipment, the <u>Chief Boiler Inspector Director</u> may, at his/her discretion, permit variations in the inspection frequency requirements as provided in the Act.
- (fe) Historical boilers, defined as steam boilers of riveted construction, that are preserved, restored, or maintained for hobby or demonstration use, shall be subjected to an initial certificate inspection followed by a certificate inspection every 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 provided by an authorized non-destructive examination testing entity as defined in NBIC. -All thinned areas shall be monitored and recorded on the inspection report both to the owner and Boiler Inspection SectionDirector's electronic copy in the comments section.
- (gf) 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 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 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 linspector. If neither the owner nor user is available, the Inspector will cause the boiler to be shut down.
- (c) The linspector 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 reinspection by an authorized State or Special Inspector.

#### Section 2-2-3\_Inspections of Exempt Vessels

State or Special Inspectors may perform an inspections of exempt boilers or pressure vessels, upon receiving a written request from the <u>boiler</u> owner and <u>depending based</u> upon inspector availability. The inspector will notify the <u>boiler</u> owner of any safety code violations. An inspection fee and a certificate fee will be charged according to the schedule established by Article 3-4 of this rule these regulations.

#### Section 2-3-4\_Inspection of Insured Vessels by a State Inspector

If an insurance company has not submitted to the Boiler Inspection SectionDirector an inspection report of an insured boiler or pressure vessel by 60-90 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 <u>State</u> inspection rate.

#### Section 2-4-5\_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).

(ba) For all inspections performed on or after January 1, 2003, Special Inspectors shall <u>Ff</u>ile their inspection reports either by entering data into the <u>Division's</u> web-based inspection entry form <u>approved by</u> the <u>Director</u> or by electronic transfer of data between the insurance company's database and the <u>DirectorDivision's database</u>. 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 2-5-6 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 thisthe Director's jurisdiction, an inspection must be made by an Inspector authorized by this jurisdictionthe Director 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 sectionDirector for approval.

## **ARTICLE 3 CERTIFICATES OF INSPECTION**

#### Section 3-1 Valid, Current Requirement of 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 thiese rule-regulations and that are in operational or stand-by status. A certificate of inspection is not required for a boiler that is out of service or scrapped as defined by this these regulations.

#### 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 3-3-2\_Grace Periods

- (a) A boiler or pressure vessel may legally be operated without a current, valid certificate of inspection in the following situations:
  - A new or existing boiler or pressure vessel that has received its initial inspection by a State Inspector, and:
    - (iA) -either nNo violations were noted or proper notice has been made that all noted violations have been corrected, and.
    - (iiB) -a<u>An enforcement document</u>cease and desist order has not been issued for nonpayment of invoiced inspection fees;
  - (2) An existing boiler whose certificate has an expired certificate because the boiler was not timely inspected in a timely manner, 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 <u>Chief Boiler InspectorDirector</u> 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<u>se regulations</u>-Colorado Boiler and <u>Pressure Code</u>.

#### Section 3-4 Inspection Fees [entire section moved to fees - Article 4]

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

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

(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 [We generally pro-rate by using the inspection date, not the certificate expiration date; therefore, this section is not needed. Statute states that the Director "may" pro-rate.]

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 [language was moved to enforcement]

#### 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 4 INSPECTION AND CERTIFICATE FEES

# The following inspection fee schedule applies to all inspections performed on or after July 1, 2017.

| Boiler type<br>Inspection type<br>BTU input                     | Inspection<br>Frequency       | Certificate<br>Issued <u>?</u> | Inspection Fee     |                           | Certificate               |
|---|-------------------------------|--------------------------------|--------------------|---------------------------|---------------------------|
|   |                               |                                | State<br>Inspector | Insurance<br>Inspector    | Fee                       |
| All Boilers<br>Initial internal/external inspection             | Initial after<br>installation | Yes                            | \$100              | N/A                       | \$ <del>15</del> 25       |
| ASME Sec I Power Boiler<br>Internal (water-side) inspection     |                               |                                |                    |                           |                           |
| $\geq$ 5,000,000 btu/hr input                                   | Annual                        | Yes                            | \$100              | \$ <del>10</del> 15       | \$ <mark>15</mark> 25     |
| ≥ 1,000,000 but < 5,000,000<br>btu/hr input                     | Annual                        | Yes                            | \$85               | \$ <del>10<u>15</u></del> | \$ <del>15</del> 25       |
| < 1,000,000 btu/hr input  | Annual                        | Yes                            | \$70               | \$ <del>10<u>15</u></del> | \$ <del>15</del> 25       |
| ASME Sec I Power Boiler   | wing the intern               | al cortificato i               | nanaction          |                           |                           |
| External (fire-side) inspection follow<br>All capacities        | Annual                        | No                             | \$50               | \$ <del>10</del> 15       | N/A                       |
| ASME Sec I Power Boiler<br>External (fire-side) inspection wher | e construction                | does not peri                  | mit internal i     | nspection                 | <u> </u>                  |
| ≥ 5,000,000 btu/hr input  | Annual                        | Yes                            | \$85               | \$ <del>10<u>15</u></del> | \$ <mark>15</mark> 25     |
| ≥ 1,000,000 but < 5,000,000<br>btu/hr input                     | Annual                        | Yes                            | \$75               | \$ <del>10<u>15</u></del> | \$ <del>15</del> 25       |
| < 1,000,000 btu/hr input  | Annual                        | Yes                            | \$65               | \$ <del>10<u>15</u></del> | \$ <del>15</del> 25       |
| ASME Sec IV Heating Boiler<br>External (fire-side) inspection   |                               |                                | ·                  | ·                         |                           |
| ≥ 5,000,000 btu/hr input  | Every 2 years                 | Yes                            | \$85               | \$ <del>10<u>15</u></del> | \$ <del>15<u>25</u></del> |
| ≥ 1,000,000 but < 5,000,000<br>btu/hr input                     | Every 2 years                 | Yes                            | \$75               | \$ <del>10<u>15</u></del> | \$ <del>15</del> 25       |
| < 1,000,000 btu/hr input  | Every 2 years                 | Yes                            | \$65               | \$ <del>10<u>15</u></del> | \$ <mark>15</mark> 25     |
| Water heaters inspected as boilers                              | due to BTU inp                | out, capacity (                | gallons), or t     | emperature                |                           |
| All capacities  | Every 2 years                 | Yes                            | \$35               | \$ <del>10<u>15</u></del> | \$ <del>15<u>25</u></del> |
| Direct-fired Jacketed Steam Kettles<br>External inspection      |                               |                                |                    |                           |                           |
| All capacities  | Every 2 years                 | Yes                            | \$35               | \$ <del>10<u>15</u></del> | \$ <del>15<u>25</u></del> |
| Exempt boilers and pressure vesse<br>External inspection        | ls                            |                                |                    |                           |                           |
| All capacities  | Upon request                  | No                             | \$85               | \$0                       | \$0                       |
| 2 <sup>nd</sup> and subsequent re-inspection o                  | f red-tagged bo               | <del>vilers</del>              |                    |                           |                           |
|   |                               |                                | <del>\$85</del>    | <del>\$0</del>            | <del>\$0</del>            |
| Historical boiler<br>External inspection                        |                               |                                |                    |                           |                           |
| All capacities  | Every 3 years                 | Yes                            | \$85               | \$ <del>10<u>15</u></del> | \$ <mark>15</mark> 25     |
| Historical boiler<br>Internal inspection                        |                               |                                |                    |                           |                           |
|   | Every 3 years                 | Yes                            | \$85               | \$ <del>10</del> 15       | \$ <del>15</del> 25       |

### **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<u>Colorado</u> 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:
  - Conduct inspections of its non-exempt boilers and pressure vessels, utilizing only qualified inspection personnelowner-user inspectors;
  - (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-performed 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 Rulethese regulations;.
- (d) A <u>state-state-</u>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 <u>S</u>ection are met.
- (e) An individual or organization performing an inspection pursuant to this section 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 Accidents

- (a) The owner or user shall notify the <u>State Boiler Inspection SectionDirector</u> within 24 hours of the explosion of any boiler or pressure vessel, or of any accident involving a boiler, <u>or pressure vessel</u>, <u>or pressure-retaining item</u> that involves bodily injury or death to any person. The initial accident report may be by telephone (303-318-8484), <u>fax (303-318-8534)</u> or e-mail (cdle\_<u>eilboiler</u> <u>\_inspection@</u>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.

## ARTICLE 7 ENFORCEMENT

#### Section 7-1 Enforcement Program

The Director provides these regulations to assist the regulated community with maintaining safe and proper operation of regulated boilers and pressure vessels. When a regulated boiler or pressure vessel is found to be out of compliance with these regulations, the Director will pursue enforcement actions. The enforcement process will include requiring the boiler owner to make repairs and other actions to bring the boiler or pressure vessel back into compliance. -During and following the enforcement process, the Director will continue to assist the boiler owner to remain in compliance. -The enforcement process may include monetary penalties up to \$1,000 per boiler or pressure vessel per day of violation according to §8-20-104 C-R-S- if the enforcement obligations are not implemented according to the required schedule.

#### Section 7-1-1 Notice of Violation

(a) A Notice of Violation (NOV) may be issued when a boiler or pressure vessel is found to be out of compliance with these regulations and/or §8-20 and 9-4 C-R-S.

(b) Pursuant to §9-4-105(3) CRS, the NOV may include condemnation of a boiler or pressure vessel that has been determined to be unsafe, and the NOV 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. -In the case of a condemned boiler or pressure vessel, a re-inspection by a State or Special Inspector must be performed to document that satisfactory repairs were completed before the boiler or pressure vessel may be operated.

(c) Within 10 working days after an NOV has been issued, the person issued the NOV may file a written request with the Director for an informal conference regarding the NOV. -If the person issued the NOV does not request an informal conference within this time frame, all provisions of the NOV shall become final and not subject to further discussion. -If the NOV is not resolved within the prescribed time frame, the Director may then seek judicial enforcement of the NOV, or an Enforcement Order may be issued.

#### Section 7-1-2 Enforcement Order

- (a) An Enforcement Order may be issued when the violations included within an NOV are not resolved within the prescribed time frame. -The Enforcement Order may include increased fines up to \$1,000-00 per boiler or pressure vessel for each day of violation pursuant to §8-20-104(4)(a) CRS. -In addition, the Enforcement Order may include a cease and desist order per §9-4-108 C-R-S- to discontinue use of the boiler or pressure vessel. The Director shall not issue a cease and desist order for a boiler operated without a valid certificate of inspection if the sole reason for failure to have the certificate of inspection is that the boiler was not inspected in a timely manner.
- (b) Within 10 working days after an Enforcement Order has been issued, the boiler owner may file a written request with the Executive Director for an informal conference regarding the Enforcement Order. -If the boiler owner does not request an informal conference within this time -frame, all provisions of the Enforcement Order shall become final and not subject to further discussion. -If the Enforcement Order is not resolved within the prescribed time- frame, the Director may seek judicial enforcement of the Enforcement Order.

#### Section 7-1-3 Informal Conference

(a) Upon receipt of the request, the Director shall provide the boiler owner with notice of the date, time and place of the informal conference. -The Director shall preside at the informal conference, during which the boiler owner and Division personnel may present information and arguments regarding the allegations and requirements of the NOV or the Enforcement Order. (b) Within 20 days after the informal conference, the Director shall issue a Settlement Agreement in which the violations from the NOV and/or Enforcement Order will be upheld, modified or stricken. -The Settlement Agreement will include a schedule of required activity for resolution of the violations. If the terms and/or schedule in the Settlement Agreement are not satisfied, either an Enforcement Order will be issued or the Director may seek judicial enforcement of the previously--issued Enforcement Order.