

**PROPOSED REGULATION OF THE
DIVISION OF INDUSTRIAL RELATIONS OF THE
DEPARTMENT OF BUSINESS AND INDUSTRY**

LCB File No. R034-21

November 13, 2021

EXPLANATION – Matter in *italics* is new; matter in brackets ~~omitted material~~ is material to be omitted.

AUTHORITY: §§ 1-28, NRS 455C.110.

A REGULATION relating to the safety of certain mechanical equipment; revising certain requirements for boilers and pressure vessels; revising certain definitions; revising the adoption by reference of certain manuals, codes and standards governing boilers and pressure vessels; revising procedures to obtain an exemption from certain requirements for boilers and pressure vessels; revising requirements for the issuance and renewal of certain certificates and work cards; providing that an elevator is not required to comply with certain requirements governing elevators until the occurrence of certain events; authorizing an elevator mechanic to be assisted by a licensed contractor in the performance of certain work; revising requirements for the operation of certain elevators and personnel hoists; authorizing an inspector to enter a premises that contains an elevator for the purposes of performing an inspection; authorizing the Mechanical Compliance Section of the Division of Industrial Relations of the Department of Business and Industry to place a lockout device on the energy isolating device that services an elevator, boiler or pressure vessel under certain circumstances; authorizing the Mechanical Compliance Section to personally deliver certain notices through an inspector; and providing other matters properly relating thereto.

Legislative Counsel's Digest:

Existing law requires the Division of Industrial Relations of Department of Business and Industry to adopt certain regulations: (1) establishing standards and procedures relating to the installation, inspection, operation, maintenance, relocation, improvement, alteration and repair of boilers, elevators and pressure vessels; and (2) relating to the certification of boiler inspectors and elevator mechanics. (NRS 455C.110)

Section 1 of this regulation requires a boiler to have a means for disconnecting it from all sources of electricity and sets forth requirements for such a disconnecting means.

Sections 2 and 3 of this regulation revise certain definitions concerning boilers and pressure vessels.

Existing regulations adopt certain publications by reference as standards for boilers and pressure vessels. (NAC 455C.108) **Section 4** of this regulation: (1) updates the publication

information and cost of certain publications adopted by reference; and (2) adopts additional publications by reference.

Existing regulations set forth a process by which an owner of a boiler or pressure vessel is authorized to obtain an exemption from certain requirements for boilers and pressure vessels by submitting an application to the Mechanical Compliance Section. Under existing regulations, if an inspector approves an exemption, a person designated by the Chief of the Mechanical Compliance Section is required to review the application. (NAC 455C.116) **Section 5** of this regulation removes the requirement that such a review take place within 5 working days after the inspector approves the exemption.

Existing regulations set forth materials that are required to be submitted to the Mechanical Compliance Section for the issuance of a certificate to work as a special inspector and for the issuance and renewal of a certificate to work as an elevator mechanic, a certificate of competency as a special inspector and a work card. (NAC 455C.130, 455C.460, 455C.462, 455C.464, 455C.466, 455C.468, 455C.470) **Sections 6 and 15-20** of this regulation include among the required materials, a clear photograph of the face of the applicant. **Section 6** of this regulation specifies that an applicant for a certificate to work as a special inspector is required to submit the statement regarding an obligation for the support of a child that is required to be submitted under existing law. (NRS 455C.130) **Section 16** of this regulation requires an applicant for the renewal of a certificate to work as an elevator mechanic to submit to the Mechanical Compliance Section proof that the applicant has completed certain educational training requirements in the calendar year immediately preceding the application.

Existing regulations prohibit, with certain exceptions, the removal or disturbance of boilers or pressure vessels that have undergone certain accidents before an inspection has been made by an inspector or special inspector. (NAC 455C.172) **Section 8** of this regulation requires such an inspection to be made only by an inspector.

Existing regulations prohibit, with certain exceptions, a boiler or pressure vessel from being installed in this State unless it has been registered with the National Board of Boiler and Pressure Vessel Inspectors. (NAC 455C.182) **Section 9** of this regulation: (1) additionally prohibits the installation of boilers or pressure vessels that are not constructed to conform with certain standards; and (2) exempts certain refrigeration pressure vessels from that prohibition.

Section 10 of this regulation sets forth certain requirements for the installation of an emergency shut-off valve for a boiler which is gas-fired.

Existing regulations require that an inspector or special inspector be consulted about any repair or alteration of a boiler or pressure vessel. (NAC 455C.216) **Section 11** of this regulation requires the inspector or special inspector to hold an "R" endorsement issued by the National Board.

Section 12 of this regulation revises certain requirements relating to safety relief valves for certain boilers. **Section 13** of this regulation revises certain requirements for the placement of boilers that are designed to be mounted on a wall.

Existing regulations require, with certain exceptions, an elevator in this State to be designed, constructed, installed, operated, inspected, tested, maintained, altered and repaired in a manner that satisfies the requirements set forth in certain publications adopted by reference, including the *Safety Code for Existing Elevators and Escalators*, A17.3, 2017 edition. (NAC 455C.500, 455.502) Under existing regulations, an elevator installed before December 15, 2004, is not required, with certain exceptions, to be reconstructed to satisfy the provisions of existing regulations governing elevators, but is required to comply with the *Safety Code for Existing*

Elevators and Escalators, A17.3, 2017 edition. (NAC 455C.418, 455C.446) **Section 14** of this regulation provides that an elevator is not required to receive any upgrade required by the *Safety Code for Existing Elevators and Escalators*, A17.3, 2017 edition, until the earlier of: (1) an alteration of the elevator; or (2) the issuance of an emergency order by the Chief of the Mechanical Compliance Section regarding the elevator.

Existing regulations authorize, in general, an elevator mechanic to be assisted by an elevator mechanic apprentice or elevator mechanic helper in the construction, installation, alteration or repair of an elevator. (NAC 455C.506) **Section 21** of this regulation additionally authorizes an elevator mechanic to be assisted by a licensed contractor so long as such assistance is limited to certain work performed in the hoistway or pit area of the elevator but not upon the equipment of the elevator.

Existing regulations authorize the Mechanical Compliance Section to issue a limited operating permit to allow an elevator to be used during construction. (NAC 455C.510) **Section 21** requires an elevator for which such a permit has been issued to be operated only by an elevator mechanic, elevator mechanic apprentice or elevator mechanic helper.

Section 22 of this regulation prohibits the Mechanical Compliance Section from issuing an operating permit for a period that exceeds 6 months for any personnel hoist which is permanently installed.

Section 23 of this regulation authorizes an inspector to enter a premises that contains an elevator for the purposes of performing an inspection of the elevator.

Existing regulations authorize the Chief of the Mechanical Compliance Section or his or her designee to issue an emergency order to restrain certain conditions or practices relating to an elevator, boiler or pressure vessel. (NAC 455C.530) **Section 24** of this regulation authorizes the Mechanical Compliance Section to, if the Chief determines that it is necessary after such an order has been issued, place a lockout device on the energy isolating device that services the elevator, boiler or pressure vessel.

Sections 25-27 of this regulation authorize certain notices that are required to be delivered by the Mechanical Compliance Section by certified mail to be personally delivered by an inspector.

Section 1. Chapter 455C of NAC is hereby amended by adding thereto a new section to read as follows:

A boiler must have a single, permanent means for disconnecting the boiler from all sources of electricity. The disconnecting means must be:

- 1. Of at least a general-duty type;*
- 2. Capable of being locked in the open position;*
- 3. Installed at an accessible location; and*
- 4. An integral part of the boiler or located within 5 feet of the boiler.*

Sec. 2. NAC 455C.032 is hereby amended to read as follows:

455C.032 “Code” means:

1. Any provision of a code relating to the construction , *installation, inspection, repair or alteration* of ~~boiler~~ *boilers* and pressure vessels that has been approved by the National Board;

or

2. Any provision set forth in NAC 455C.020 to 455C.300, inclusive, *and section 1 of this regulation*, including, without limitation, any provision set forth in a publication adopted by reference in NAC 455C.108.

Sec. 3. NAC 455C.064 is hereby amended to read as follows:

455C.064 “Potable water heater” means a fired heater for the storage of water which has a corrosion-resistant lining *or is constructed with corrosion resistant material* and is used to supply potable hot water.

Sec. 4. NAC 455C.108 is hereby amended to read as follows:

455C.108 The Division hereby adopts by reference:

1. The following sections of the *ASME Boiler and Pressure Vessel Code*, ~~2019~~ *2021* edition and addenda, published by the American Society of Mechanical Engineers. Those sections of the publication and the addenda may be obtained from ASME, ~~P.O. Box 36037, Newark, NJ 07188-6037,~~ *150 Clove Road, Little Falls, New Jersey 07424-2100*, for the price indicated:

(a) Section I, Rules for Construction of Power Boilers	500 <i>540</i>
(b) Section II, Materials - Part D: Properties	760 <i>820</i>
(c) Section IV, Rules for Construction of Heating Boilers	510 <i>550</i>
(d) Section V, Nondestructive Examination	570 <i>620</i>

(e) Section VI, Recommended Rules for the Care and Operation of Heating

Boilers.....~~300~~ 325

(f) Section VII, Recommended Guidelines for the Care of Power Boilers.....~~300~~ 325

(g) Section VIII, Rules for Construction of Pressure Vessels - Division 1.....~~775~~ 840

(h) Section IX, Welding, Brazing and Fusing Qualifications.....~~580~~ 625

(i) Section XIII, Rules for Overpressure Protection.....440

2. *Controls and Safety Devices for Automatically Fired Boilers*, CSD-1, 2018 edition, published by the American Society of Mechanical Engineers. This publication applies to automatically fired boilers which are directly fired with gas, oil, a combination of gas and oil, or electricity, and may be obtained from ASME, ~~P.O. Box 36037, Newark, NJ 07188-6037,~~ **150 Clove Road, Little Falls, New Jersey 07424-2100**, for the price of \$103.

3. *Power Piping*, B31.1, 2018 edition and addenda, published by the American Society of Mechanical Engineers. This publication and its addenda may be obtained from ASME, ~~P.O. Box 36037, Newark, NJ 07188-6037,~~ **150 Clove Road, Little Falls, New Jersey 07424-2100**, for the price of ~~\$216,~~ **\$335**.

4. *The Standard for the Qualification and Certification of High Capacity Fossil Fuel Fired Plants*, QFO-1, 1998 edition, published by the American Society of Mechanical Engineers. This publication may be obtained from ASME, ~~P.O. Box 36037, Newark, NJ 07188-6037,~~ **150 Clove Road, Little Falls, New Jersey 07424-2100**, for the price of \$43.

5. The edition most recently adopted pursuant to NAC 590.610 of the *National Fuel Gas Code*, ANSI Z223.1/NFPA 54, published by the National Fire Protection Association.

6. The edition most recently adopted in NAC 341.045 of the *National Electrical Code*, ANSI/NFPA 70, published by the National Fire Protection Association.

7. The edition most recently adopted in NAC 477.281 of the *International Building Code*, published by the International Code Council.

8. The edition most recently adopted in NAC 341.045 of the *Uniform Mechanical Code*, published by the International Association of Plumbing and Mechanical Officials.

9. The edition most recently adopted in NAC 341.045 of the *Uniform Plumbing Code*, published by the International Association of Plumbing and Mechanical Officials.

10. The edition most recently adopted in NAC 477.281 of the *International Fire Code*, published by the International Code Council.

11. The *National Board Inspection Code*, 2013 edition and addenda, published by the National Board of Boiler and Pressure Vessel Inspectors. This publication and its addenda may be obtained from the National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, Ohio 43229, for the price of \$295.

12. The *Standard for the Installation of Oil-Burning Equipment*, ANSI/NFPA 31, 2020 edition, published by the National Fire Protection Association. This publication may be obtained from the National Fire Protection Association free of charge at the Internet address <http://www.nfpa.org/freeaccess>.

13. The *Safety Standard for Refrigeration Systems*, ANSI/ASHRAE 15, 2019 edition, published by the American Society of Heating, Refrigeration and Air-Conditioning Engineers. This publication may be obtained from the American Society of Heating, Refrigeration and Air-Conditioning Engineers, ~~1791 Tullie Circle, Atlanta, GA 30329,~~ **180 Technology Parkway, N.W., Peachtree Corners, Georgia 30092**, for the price of \$107.

14. The edition most recently adopted pursuant to NAC 590.600 of the *Liquefied Petroleum Gas Code*, ANSI/NFPA 58, published by the National Fire Protection Association.

15. *[The Pressure Vessel Inspection Code: In-Service Inspection, Rating, Repair, and Alteration, API 510, 2014 edition, published by the American Petroleum Institute. This publication may be obtained from the American Petroleum Institute, 200 Massachusetts Avenue, N.W., Suite 1100, Washington, D.C. 20001-5571, for the price of \\$244.](#)*

16. *[The Hydrogen Technologies Code, NFPA 2, 2020 edition, published by the National Fire Protection Association. This publication may be obtained from the National Fire Protection Association free of charge at the Internet address <http://www.nfpa.org/freeaccess>.](#)*

17. If any publication adopted by reference in subsections 1 to 4, inclusive, 11, 12 , ~~13~~ , 15 or 16 is revised, the Division will review the revision to determine its suitability for this State. If the Division determines that the revision is not suitable for this State, the Division will hold a public hearing to review its determination within 6 months after the date of publication of the revision and give notice of that hearing. If, after the hearing, the Division does not revise its determination, the Division will give notice within 30 days after the hearing that the revision is not suitable for this State. If the Division does not give such notice, the revision becomes part of the publication adopted by reference in this section.

Sec. 5. NAC 455C.116 is hereby amended to read as follows:

455C.116 1. An owner of a boiler or pressure vessel who wishes to obtain an exemption from a requirement set forth in NAC 455C.020 to 455C.300, inclusive, ***and section 1 of this regulation,*** for a condition or practice that is not consistent with the requirement must submit an application for an exemption to the Mechanical Compliance Section on a form prescribed by the Mechanical Compliance Section.

2. If a condition or practice for which the person requests an exemption does not affect the safe operation of a boiler, pressure vessel or related system, an inspector may approve the exemption from the requirement if:

- (a) Such an exemption is necessary to allow the operation of the boiler or pressure vessel; and
- (b) Compliance with the requirement is not practicable.

3. If an inspector approves the exemption:

- (a) The approval must be noted on the application for an exemption; and
- (b) The application for an exemption must be reviewed by a person designated by the Chief .

~~[within 5 working days after the exemption is approved by the inspector.]~~

4. If the person designated by the Chief grants the exemption, the person shall:

- (a) Note that he or she has granted the exemption on the application for an exemption; and
- (b) Forward the application for an exemption to the Chief within 15 days after granting the exemption.

5. If the person designated by the Chief denies the exemption and the person requesting the exemption contests the denial, the person designated by the Chief shall have the boiler or pressure vessel jointly inspected by any combination of two inspectors or special inspectors.

Each inspector or special inspector shall prepare and submit a report of inspection to the person designated by the Chief. The person designated by the Chief shall reconsider the application for exemption and render a final decision based on the information contained in the reports of inspection submitted by the inspectors or special inspectors pursuant to this section.

6. In addition to an exemption that may be granted pursuant to subsections 1 to 5, inclusive, the Chief may grant an exemption from a requirement set forth in NAC 455C.020 to 455C.300, inclusive, *and section 1 of this regulation*, for a boiler or pressure vessel in the case of an

emergency or if the Chief determines that such an exemption is in the best interests of the general public. If the Chief grants an exemption pursuant to this subsection, he or she shall notify the Administrator of the exemption. If the exemption is granted because the Chief determined that the exemption is in the best interests of the general public, the notice to the Administrator must be in writing.

NEW FIRST
PARALLEL
SECTION

Sec. 6. NAC 455C.130 is hereby amended to read as follows:

455C.130 1. An applicant for a certificate to work as a special inspector must submit to the Mechanical Compliance Section:

(a) An application on a form prescribed by the Mechanical Compliance Section;

(b) The fee for issuance of a certificate set forth in NAC 455C.118; ~~and~~

(c) *A clear photograph of the face of the applicant;*

(d) *The statement required by NRS 455C.130; and*

(e) Proof satisfactory to the Mechanical Compliance Section that the applicant:

(1) Satisfies the requirements described in NAC 455C.132;

(2) Passed the examination described in NAC 455C.132; and

(3) Is employed or retained as an independent contractor by:

(I) An insurance company that is licensed in this State to write insurance for a boiler or pressure vessel; or

(II) An inspection organization as defined in NAC 455C.058 or 512.528.

2. If an applicant satisfies the requirements set forth in subsection 1, the Mechanical Compliance Section may issue a certificate to the applicant.

3. The Mechanical Compliance Section may issue a card for identification to the applicant after the applicant receives a commission.

4. A certificate and a card for identification issued pursuant to this section expire at midnight on March 1 next following the date of issuance, unless the certificate and the card for identification are renewed.

Sec. 7. NAC 455C.130 is hereby amended to read as follows:

455C.130 1. An applicant for a certificate to work as a special inspector must submit to the Mechanical Compliance Section:

- (a) An application on a form prescribed by the Mechanical Compliance Section;
- (b) The fee for issuance of a certificate set forth in NAC 455C.118;
- (c) A clear photograph of the face of the applicant; *and*
- (d) ~~The statement required by NRS 455C.130; and~~
- ~~(e)~~ Proof satisfactory to the Mechanical Compliance Section that the applicant:
 - (1) Satisfies the requirements described in NAC 455C.132;
 - (2) Passed the examination described in NAC 455C.132; and
 - (3) Is employed or retained as an independent contractor by:
 - (I) An insurance company that is licensed in this State to write insurance for a boiler or pressure vessel; or
 - (II) An inspection organization as defined in NAC 455C.058 or 512.528.

2. If an applicant satisfies the requirements set forth in subsection 1, the Mechanical Compliance Section may issue a certificate to the applicant.

3. The Mechanical Compliance Section may issue a card for identification to the applicant after the applicant receives a commission.

4. A certificate and a card for identification issued pursuant to this section expire at midnight on March 1 next following the date of issuance, unless the certificate and the card for identification are renewed.

Sec. 8. NAC 455C.172 is hereby amended to read as follows:

455C.172 If an accident occurs which renders a boiler or pressure vessel inoperative, the owner of the boiler or pressure vessel or his or her agent shall immediately notify the Mechanical Compliance Section in writing and submit a detailed report of the accident. In the case of a serious accident, including an explosion, notice must be given to the Mechanical Compliance Section immediately by the most expeditious means. The boiler or pressure vessel and any parts thereof must not be removed or disturbed before an inspection has been made by an inspector ~~for~~ ~~special inspector~~ unless human life is endangered or except to limit further damage.

Sec. 9. NAC 455C.182 is hereby amended to read as follows:

455C.182 1. Each boiler and pressure vessel must be installed and trimmed as required by the stamping of the original manufacturer of the boiler or pressure vessel and in accordance with the applicable provisions of the code.

2. Except as otherwise provided in subsection 6, a contractor must obtain a permit for installation before installing or altering a boiler or pressure vessel, including, without limitation, a refrigeration pressure vessel, in this State. If installation is begun before the permit is issued, installation must be suspended until the permit is issued.

3. A request for a permit for installation must be submitted by the contractor to the Mechanical Compliance Section in writing not less than 10 days before the installation will begin and include:

(a) A data report from the manufacturer of the boiler or pressure vessel and, if the boiler or pressure vessel that is being installed was moved from another location, a copy of the original permit for installation and report of inspection;

(b) The plans and specifications of the boiler room in which the boiler or pressure vessel is being installed which designate the location of the boiler or pressure vessel and which comply with the requirements of NAC 455C.250 and 455C.254; and

(c) A copy of his or her contractor's license issued pursuant to chapter 624 of NRS which authorizes the contractor to install boilers or pressure vessels.

4. Except for an existing installation, ~~for~~ a reinstalled boiler or pressure vessel ~~or a~~ *refrigeration pressure vessel with a maximum allowable working pressure that does not exceed 15 PSIG*, a boiler or pressure vessel may not be installed in this State unless it has been ~~registered~~ :

(a) *Constructed to conform with the ASME Boiler and Pressure Vessel Code, as adopted by reference in NAC 455C.108; and*

(b) *Registered* with the National Board.

5. Before a secondhand boiler or pressure vessel, reinstalled boiler or pressure vessel, or portable boiler or pressure vessel may be installed or shipped for installation into this State, the owner of the boiler or pressure vessel or his or her agent or the contractor must apply to the Mechanical Compliance Section for approval to install it. The request for a permit for installation must include, without limitation, a report of inspection. The report of inspection must be prepared by a person who holds a commission and who inspected the boiler or pressure vessel. The fittings and appurtenances of the boiler or pressure vessel must comply with the requirements for the installation of a new boiler or pressure vessel.

6. In the case of an emergency, a contractor may install or alter a boiler or pressure vessel, including a refrigeration pressure vessel, in this State without first obtaining a permit from the Mechanical Compliance Section if the contractor:

(a) Notifies the Mechanical Compliance Section the next business day after the alteration or installation; and

(b) Obtains the permit required by subsection 2 at that time.

7. As used in this section, “emergency” means a situation in which:

(a) A boiler or pressure vessel is required by an occupant of a building for heating, cooling or a potable water supply;

(b) The occupancy is classified as Group E (Educational), Group I (Institutional) or Group R (Residential) pursuant to the *International Building Code* adopted by reference in NAC 455C.108; and

(c) The failure to immediately install or repair the boiler or pressure vessel would be a threat to public safety.

Sec. 10. NAC 455C.206 is hereby amended to read as follows:

455C.206 For installations which are gas-fired:

1. The burners used must conform to the applicable requirements of the *National Fuel Gas Code*, as adopted by reference in NAC 455C.108; and

2. An emergency shut-off valve must be installed:

(a) On the gas line which feeds the installation; ~~and~~

(b) In a location on that gas line such that the emergency shut-off valve is upstream of all other valves ~~and~~; *and*

(c) Not more than 5 feet from the point where the gas line enters the room for the boiler or, if such an installation is not possible, as close to the point where the gas line enters the room as possible.

↪ The emergency shut-off valve must interrupt all flow of gas to the installation upon the actuation of the emergency shut-down switch for the boiler.

Sec. 11. NAC 455C.216 is hereby amended to read as follows:

455C.216 1. Repairs and alterations to all boilers and pressure vessels must conform to the applicable provisions of the code.

2. If a repair or alteration to a boiler or pressure vessel is necessary, an inspector or special inspector *who holds an “R” endorsement issued by the National Board* must be consulted about the appropriate method of making the repair or alteration. After the repair or alteration is made, the inspector or special inspector shall inspect the boiler or pressure vessel in the manner set forth in the code. The person who makes the repairs or alterations shall submit the “R” form, prescribed by the National Board, to the Mechanical Compliance Section within 30 days after completion of the repair or alteration.

3. The person who makes repairs or alterations must be qualified pursuant to the applicable provisions of the code.

Sec. 12. NAC 455C.232 is hereby amended to read as follows:

455C.232 1. Each hot water heating boiler must have at least one safety relief valve, certified by the American Society of Mechanical Engineers or the National Board, set to relieve pressure at or below the maximum allowable working pressure of the boiler. Each hot water supply boiler must have at least one safety relief valve of the automatic reseating type, certified by the American Society of Mechanical Engineers or the National Board, set to relieve at or

below the maximum allowable working pressure of the boiler. Safety relief valves must have a capacity certified by the American Society of Mechanical Engineers or the National Board and must have a spring-pop type action if tested by steam. If more than one safety relief valve is used on hot water heating or hot water supply boilers, the additional valve must be rated by the American Society of Mechanical Engineers or the National Board and set within a range not to exceed 6 PSIG above the maximum allowable working pressure of the boiler up to and including 60 PSIG and ~~10~~ 5 percent if the maximum allowable working pressure exceeds 60 PSIG. Safety relief valves must be spring loaded. Safety relief valves must be arranged so that they cannot be reset at a higher pressure than the maximum permitted by this subsection.

2. Material that is likely to fail because of deterioration or vulcanization if it is subjected to a saturated steam temperature which corresponds to test pressure for capacity must not be used for any part of the safety relief valve.

3. A safety relief valve must not be smaller than three-quarters of an inch or larger than 4 1/2 inches in a standard pipe size, except that boilers having an input of heat of not more than 15,000 British thermal units per hour may be equipped with a safety relief valve of one-half of an inch in diameter or its equivalent area. The opening for the inlet must have an inside diameter approximately equal to, or greater than, the diameter of the seat. The minimum opening through any part of the valve must not be less than one-fourth of an inch in diameter or an equivalent area.

4. The capacity of the safety relief valve for each boiler *with a single safety relief valve* must be such that, with the fuel-burning equipment installed and operated at maximum capacity, the pressure cannot exceed 10 percent above the maximum allowable working pressure of the boiler.

5. If operating conditions are changed or additional boiler heating surface is installed, the capacity of the valve must be increased, if necessary, to meet the new conditions as set forth in the code and must be in accordance with subsection 4. The additional valves required because of changed conditions may be installed on the outlet piping if there is no intervening valve.

6. If there is any doubt as to the capacity of the safety relief valve, an accumulation test must be run as provided in section IV of the *ASME Boiler and Pressure Vessel Code*, as adopted by reference in NAC 455C.108.

7. A valve of any description must not be placed between the safety relief valve and the boiler, or on the discharge pipe between the safety relief valve and the atmosphere. The discharge pipe must be at least full size and fitted with an open drain to prevent water from lodging in the upper part of the safety relief valve or in the discharge pipe. If an elbow is placed on the discharge pipe, it must be located close to the safety relief valve outlet or the discharge pipe must be securely anchored and supported. All discharges from the safety relief valve must be so located or piped as not to endanger any person in the area.

8. A pressure and temperature relief valve must be installed on all water heaters and hot water supply boilers to which the provisions of NAC 455C.020 to 455C.300, inclusive, *and section 1 of this regulation*, apply.

Sec. 13. NAC 455C.250 is hereby amended to read as follows:

455C.250 Except as otherwise provided in *this section and* NAC 455C.252 and 455C.254, if boilers are replaced or new boilers are installed in existing or new buildings, a minimum height of at least 3 feet must be provided between the top of the boiler, excluding appurtenances, and the ceiling and at least 3 feet between any side of the boiler and any adjacent wall or other structure. *Boilers which are designed to be mounted on a wall are not required to maintain a*

distance of 3 feet from the wall on which they are mounted. Boilers and pressure vessels having manholes must have a 5-foot clearance from the opening of the manhole to any wall, ceiling or piping that will prevent a person from entering the boiler or pressure vessel. All boilers and pressure vessels must be located so that adequate space will be provided for the proper operation of the boilers and pressure vessels and their appurtenances, for the inspection of all surfaces, tubes, waterwalls, economizers, piping, valves and other equipment, and for the necessary maintenance and repair and the replacement of tubes. If pressure vessels are installed or replaced, there must be an area of unobstructed clearance which is at least 18 inches wide and provides access for inspection, maintenance and repair. Clearance for repairs and cleaning may be provided through a door or access panel into another area if the door or access panel is large enough to allow the repairs and cleaning to be performed adequately.

Sec. 14. NAC 455C.446 is hereby amended to read as follows:

455C.446 1. The requirements of NAC 455C.400 to 455C.530, inclusive, and section 1 of LCB File No. R045-20, apply to the installation, relocation, use, maintenance, alteration or repair of an elevator as specified in this section.

2. All new elevators must be designed and installed in accordance with the requirements of NAC 455C.400 to 455C.530, inclusive, and section 1 of LCB File No. R045-20.

3. All relocations of elevators made on or after December 15, 2004, must satisfy the requirements of NAC 455C.400 to 455C.530, inclusive, and section 1 of LCB File No. R045-20.

4. An existing installation may be used without being reconstructed to comply with the requirements of NAC 455C.400 to 455C.530, inclusive, and section 1 of LCB File No. R045-20, except for those sections which specifically refer to such existing installations. ~~Every~~ *Except as otherwise provided in subsection 6, every* existing installation must be maintained in a safe

operating condition and must comply with the applicable provisions of the edition of each publication adopted by reference in NAC 455C.500 that was in effect at the time the elevator was installed and the *Safety Code for Existing Elevators and Escalators*, A17.3, as adopted by reference in NAC 455C.500.

5. Except as otherwise provided in this subsection, an alteration or repair to an existing installation must satisfy the requirements set forth in NAC 455C.400 to 455C.530, inclusive, and section 1 of LCB File No. R045-20. If the Mechanical Compliance Section determines that it is not practicable to satisfy any of those requirements, the alteration or repair must satisfy the requirements of the applicable provisions of the edition of each publication adopted by reference in NAC 455C.500 that was in effect at the time the elevator was installed.

6. A new elevator or existing installation is not required to receive any upgrade required by the Safety Code for Existing Elevators and Escalators, A17.3, as adopted by reference in NAC 455C.500, until:

(a) The elevator undergoes an alteration; or

(b) The Chief issues an emergency order regarding the elevator pursuant to NAC 455C.530,

↳ whichever is earlier.

FIRST
PARALLEL
SECTION

Sec. 15. NAC 455C.460 is hereby amended to read as follows:

455C.460 1. An applicant for a certificate to work as an elevator mechanic must submit to the Mechanical Compliance Section:

(a) An application on a form prescribed by the Mechanical Compliance Section;

(b) The fee for the issuance of a certificate set forth in NAC 455C.450;

(c) ***A clear photograph of the face of the applicant;***

(d) The statement required by NAC 455C.474; and

~~(d)~~ (e) Proof satisfactory to the Mechanical Compliance Section that the applicant:

(1) Has successfully completed a formal educational program or an apprenticeship, recognized by a state or federal apprenticeship program, in the construction, installation, alteration and repair of elevators;

(2) Has at least 12,000 hours of working experience in the construction, installation, alteration and repair of elevators;

(3) Has at least 10,000 hours of working experience in the construction, installation, alteration and repair of elevators and holds a current Qualified Elevator Inspector (QEI) certification issued by an organization that holds a QEI Certificate of Accreditation;

(4) Has at least 8,000 hours of working experience in the construction, installation, alteration and repair of elevators, has successfully completed at least 60 semester hours or 90 quarter hours of course work from an accredited college or university in an engineering field relating to the construction, installation, alteration and repair of elevators and holds a current Qualified Elevator Inspector (QEI) certification issued by an organization that holds a QEI Certificate of Accreditation; or

(5) Has at least 6,000 hours of working experience in the construction, installation, alteration and repair of private residence elevators.

2. If the Mechanical Compliance Section has reason to believe that the conduct of an applicant for a certificate has raised a reasonable question as to the applicant's competence to practice as an elevator mechanic with reasonable skill and safety, the Mechanical Compliance Section may require an examination of the applicant to determine his or her fitness to practice as

an elevator mechanic. If such action is taken, the reasons for the action must be documented and must be available to the applicant being examined.

3. A certificate issued pursuant to this section expires at midnight on the date that is one year after the date of issuance, unless the certificate is renewed.

4. Except as otherwise provided in subsections 5 , ~~and~~ 6 ~~;~~ *and* 7, if an applicant satisfies the requirements set forth in this section, the Mechanical Compliance Section shall issue a certificate to the applicant.

5. If the working experience of the applicant is limited to private residence elevators, the certificate issued pursuant to this section must only authorize the holder of the certificate to construct, install, alter or repair a private residence elevator.

6. If the working experience of the applicant is limited to personnel hoists and employee elevators on construction or demolition sites, the certificate issued pursuant to this section must only authorize the holder of the certificate to construct, install, alter or repair a personnel hoist or employee elevator on a construction or demolition site.

7. If the working experience of the applicant is limited to vertical reciprocating conveyors, the certificate issued pursuant to this section must only authorize the holder of the certificate to construct, install, alter or repair a vertical reciprocating conveyor.

FIRST
PARALLEL
SECTION

Sec. 16. NAC 455C.462 is hereby amended to read as follows:

455C.462 1. To renew a certificate, an elevator mechanic must, before the expiration of the certificate, submit to the Mechanical Compliance Section:

- (a) An application on a form prescribed by the Mechanical Compliance Section;
- (b) The fee for the renewal of a certificate set forth in NAC 455C.450; ~~and~~
- (c) *A clear photograph of the face of the applicant;*

(d) The statement required by NAC 455C.474 ~~H~~ ; and

(e) *Proof satisfactory to the Mechanical Compliance Section that the applicant has completed, in the calendar year immediately preceding the application for renewal, 8 hours of educational training in the construction, installation, alteration and repair of elevators from a nationally accredited educational program.*

2. The renewal of a certificate pursuant to this section expires at midnight on the date that is one year after the date of the renewal.

FIRST
PARALLEL
SECTION

Sec. 17. NAC 455C.464 is hereby amended to read as follows:

455C.464 1. An applicant for a certificate of competency as a special inspector must:

(a) Submit to the Mechanical Compliance Section:

(1) An application on a form prescribed by the Mechanical Compliance Section;

(2) The fee for the issuance of a certificate of competency set forth in NAC 455C.450;

~~and~~

(3) *A clear photograph of the face of the applicant; and*

(4) The statement required by NAC 455C.474; and

(b) Hold a current Qualified Elevator Inspector (QEI) certification issued by an organization that holds a QEI Certificate of Accreditation.

2. A certificate of competency issued pursuant to this section expires at midnight on the date that is one year after the date of issuance, unless the certificate of competency is renewed.

3. If an applicant satisfies the requirements set forth in this section, the Mechanical Compliance Section shall issue a certificate of competency to the applicant.

FIRST
PARALLEL
SECTION

Sec. 18. NAC 455C.466 is hereby amended to read as follows:

455C.466 1. To renew a certificate of competency, a special inspector must, before the expiration of the certificate, submit to the Mechanical Compliance Section:

- (a) An application on a form prescribed by the Mechanical Compliance Section;
- (b) The fee for the renewal of a certificate of competency set forth in NAC 455C.450; ~~and~~
- (c) *A clear photograph of the face of the applicant; and*
- (d) The statement required by NAC 455C.474.

2. The renewal of a certificate of competency pursuant to this section expires at midnight on the date that is one year after the date of the renewal.

FIRST
PARALLEL
SECTION

Sec. 19. NAC 455C.468 is hereby amended to read as follows:

455C.468 1. An applicant for a work card must submit to the Mechanical Compliance Section:

(a) A letter certifying that the applicant is currently employed by or under contract with a licensed elevator contractor;

- (b) The fee for issuance of a work card set forth in NAC 455C.450; ~~and~~
- (c) *A clear photograph of the face of the applicant; and*
- (d) The statement required by NAC 455C.474.

2. A work card issued pursuant to this section expires at midnight on the date that is one year after the date of issuance, unless the work card is renewed.

3. If an applicant satisfies the requirements set forth in this section, the Mechanical Compliance Section shall issue a work card to the applicant.

FIRST
PARALLEL
SECTION

Sec. 20. NAC 455C.470 is hereby amended to read as follows:

455C.470 1. To renew a work card, an elevator mechanic apprentice or elevator mechanic helper must, before the expiration of the work card, submit to the Mechanical Compliance Section:

(a) A letter certifying that he or she is currently employed by or under contract with a licensed elevator contractor;

(b) The fee for the renewal of a work card set forth in NAC 455C.450; ~~and~~

(c) *A clear photograph of the face of the applicant; and*

(d) The statement required by NAC 455C.474.

2. The renewal of a work card pursuant to this section expires at midnight on the date that is one year after the date of the renewal.

Sec. 21. NAC 455C.506 is hereby amended to read as follows:

455C.506 1. Except as otherwise provided in subsection 3, a licensed elevator contractor must obtain a permit from the Mechanical Compliance Section for construction, installation or alteration of an elevator before such work is begun. Only one active permit may exist at any time for each elevator.

2. A contractor who is required to obtain a permit pursuant to subsection 1 must submit to the Mechanical Compliance Section not less than 10 business days before commencing the construction, installation or alteration a request for the permit that is accompanied by plans, drawings, a maintenance control program and specifications in the form prescribed by the Mechanical Compliance Section. Except as otherwise provided in subsection 3, if the plans, drawings and specifications indicate the construction, installation or alteration will comply with the provisions of NAC 455C.400 to 455C.530, inclusive, and section 1 of LCB File No. R045-

20, and the contractor does not have an outstanding debt owing to the Mechanical Compliance Section, the Mechanical Compliance Section shall issue a permit to the contractor.

3. A permit is not required for repairs and replacement that are necessary for the maintenance of an elevator if parts of equivalent materials, strength and design as that used in the original construction are used.

4. A permit is not required for the installation of cosmetic wraps on elevator hoistway doors, on doors of cars or on interior panels of cars if the installation:

- (a) Does not exceed 90 days in duration;
- (b) Does not obscure any required marking, control, light, key switch or access point;
- (c) Does not cover any operating panel of a car;
- (d) Uses materials that comply with adopted codes; and
- (e) Is not made on an escalator.

5. An elevator for which a permit for construction, installation or alteration is required must not be constructed, installed or altered unless a permit has been issued. If any such work is started before the permit is obtained, the work must be suspended until a permit is issued and the Mechanical Compliance Section may impose an administrative fine of not more than \$5,000 on the licensed elevator contractor or, if a licensed elevator contractor is not performing the work, on the owner of the elevator. Each 30-calendar-day period during which a violation of this section continues constitutes a separate violation.

6. Except as otherwise provided in subsection 3 of NAC 455C.510, an operating permit is suspended upon the issuance of a permit for alteration of an elevator until the alteration is complete and a satisfactory inspection has been performed by the Mechanical Compliance

Section. A permit for construction, installation or alteration of an elevator does not authorize the operation of an elevator for which an operating permit is required.

7. Except as otherwise provided in subsection 8, as required by NRS 455C.160, a person who constructs, installs, alters or repairs a new elevator or existing installation must be certified as an elevator mechanic pursuant to NRS 455C.110 and NAC 455C.460.

8. An elevator mechanic may be assisted in the construction, installation, alteration or repair of a new elevator or existing installation by ~~an~~ :

(a) *An* elevator mechanic apprentice or an elevator mechanic helper if the work performed by the elevator mechanic apprentice or elevator mechanic helper is performed under the supervision of the elevator mechanic.

(b) Subject to the provisions of section 1 of LCB File No. R045-20, a licensed contractor so long as such assistance is limited to the performance of construction work, including, without limitation, plumbing, electrical work, carpentry, steelwork and the installation or removal of drywall, which is performed within the hoistway or pit area of the elevator but not upon the equipment of the elevator.

9. *An elevator for which a limited operating permit to allow the elevator to be used during construction has been issued pursuant to NAC 455C.510 may only be operated by:*

(a) An elevator mechanic; or

(b) An elevator mechanic apprentice or elevator mechanic helper working under the direct supervision of an elevator mechanic.

Sec. 22. NAC 455C.510 is hereby amended to read as follows:

455C.510 1. The Mechanical Compliance Section shall issue an operating permit to the owner of an elevator within the period set forth in subsection 2 if the written report of inspection

indicates the elevator is in compliance with NAC 455C.400 to 455C.530, inclusive, and section 1 of LCB File No. R045-20. The operating permit must set forth the number assigned by the Mechanical Compliance Section and the serial number assigned by the manufacturer of the elevator. The operating permit must be retained on the premises where the elevator is installed. The owner shall post in each elevator information regarding the operating permit as required by the Mechanical Compliance Section.

2. The Mechanical Compliance Section shall issue an operating permit within:

(a) Thirty calendar days for existing installations; and

(b) Fifteen calendar days for new elevators,

↳ after the date of the inspection, unless the time is extended by the Mechanical Compliance Section. An elevator for which a permit is required must not be operated unless the operating permit has been issued.

3. The Mechanical Compliance Section may issue a limited operating permit to allow an elevator to be used during construction.

4. The Mechanical Compliance Section shall not issue an operating permit for a period that exceeds:

(a) One year for elevators, dumbwaiters, platform lifts and material lifts.

(b) Six months for escalators ~~for~~, moving walks ~~for~~ *or any personnel hoist which is permanently installed.*

(c) ~~The~~ *Except as otherwise provided in paragraph (b), the* period designated by the Mechanical Compliance Section for related equipment.

(d) Ninety calendar days if the operating permit is a limited operating permit issued to allow an elevator to be used during construction.

5. If the written report of an inspection of an elevator indicates a violation of NAC 455C.400 to 455C.530, inclusive, and section 1 of LCB File No. R045-20, or of the detailed plans and specifications approved by the Mechanical Compliance Section pursuant to NAC 455C.506, the Mechanical Compliance Section shall give notice to the owner of the elevator and may give notice to any other appropriate person of the changes necessary for compliance. If the owner makes the changes required by the Mechanical Compliance Section, the Mechanical Compliance Section shall issue an operating permit to the owner within:

(a) Thirty calendar days for existing installations; and

(b) Fifteen calendar days for new elevators,

↳ after the date the changes were completed, unless the time is extended by the Mechanical Compliance Section.

6. If the written report of an inspection of an elevator indicates that the elevator is unsafe and that its continued operation may be dangerous, the Mechanical Compliance Section shall refuse to issue, or shall suspend or revoke, the operating permit and shall require the owner of the elevator to ensure that the elevator will not be used until the elevator has been made safe and is in compliance with the requirements of NAC 455C.400 to 455C.530, inclusive, and section 1 of LCB File No. R045-20.

Sec. 23. NAC 455C.518 is hereby amended to read as follows:

455C.518 1. In addition to those inspections of an elevator that are required to be made pursuant to NAC 455C.516, an inspector or a special inspector may require an inspection to be made of any elevator if, in his or her opinion, an inspection is necessary to determine the safety of the elevator. If an inspector or special inspector determines that the operating permit for an elevator should be suspended, modified or revoked pursuant to NAC 455C.530, 455C.616,

455C.624 or 455C.632 due to an unsafe condition, he or she shall notify the Mechanical Compliance Section immediately.

2. All inspection duties set forth in the *Safety Code for Elevators and Escalators*, A17.1, the *Guide for Inspection of Elevators, Escalators, and Moving Walks*, A17.2, and the *Standard for the Qualification of Elevator Inspectors*, QEI-1, as adopted by reference in NAC 455C.500, must be performed by an inspector or a special inspector. An inspector or special inspector shall only perform the inspection duties described by those publications, including, without limitation, as applicable, the observation of periodic tests performed by an elevator mechanic and the inspection of the machine room, elevator car top, hoistway, inside of the cab of an elevator and elevator pit area.

3. An inspector may, upon presenting appropriate credentials to the owner, operator or agent in charge of a premises that contains an elevator, enter without delay and at reasonable times the premises for the purposes of performing an inspection of the elevator.

Sec. 24. NAC 455C.530 is hereby amended to read as follows:

455C.530 1. The Chief of the Mechanical Compliance Section or his or her designee may issue an emergency order to restrain any conditions or practices relating to an elevator, boiler or pressure vessel which are such that a danger exists which could reasonably be expected to cause death or serious physical harm immediately or before the imminence of the danger can be eliminated through the other enforcement procedures provided by this chapter. An order issued pursuant to this section may require such steps to be taken as are necessary to avoid, correct or remove the imminent danger and may prohibit the employment or presence of any person in locations or under conditions where the imminent danger exists, except persons whose presence is necessary to avoid, correct or remove the imminent danger or to maintain the capacity of a

continuous process operation to resume normal operations without a complete cessation of operations or, where a cessation of operations is necessary, to allow the cessation to be accomplished in a safe and orderly manner.

2. An emergency order issued pursuant to subsection 1 becomes effective upon delivery to the owner of the elevator, boiler or pressure vessel or his or her agent where the danger exists. If, within 15 calendar days after the effective date of the order, the owner of the elevator, boiler or pressure vessel fails to notify the Administrator that the owner wishes to contest the order, the order shall be deemed a final order. If the owner of the elevator, boiler or pressure vessel contests the order within 15 days after the effective date of the order and the Administrator does not rescind or modify the order as requested, the owner may petition the district court for relief. Upon the filing of such a petition, the district court may grant injunctive relief or a temporary restraining order pending the outcome of an enforcement proceeding pursuant to this chapter.

3. Whenever and as soon as an inspector or a special inspector concludes that a condition or practice described in subsection 1 exists regarding an elevator, boiler or pressure vessel, the inspector or special inspector shall inform the owner of the elevator, boiler or pressure vessel or his or her agent and the general public of the danger and that he or she is recommending to the Chief of the Mechanical Compliance Section that an emergency order be issued.

4. If an emergency order has been issued pursuant to subsection 1, an inspection to return the elevator, boiler or pressure vessel to service may be performed only by an inspector.

5. If an emergency order has been issued pursuant to subsection 1 and the Chief of the Mechanical Compliance Section or his or her designee determines that it is necessary, the Mechanical Compliance Section may place a lockout device on the energy isolating device that services the elevator, boiler or pressure vessel. The lockout device must not be removed from

the energy isolating device except upon the issuance of an order by the Chief of the Mechanical Compliance Section or his or her designee.

6. As used in this section, “energy isolating device” means a mechanical device that physically prevents the transmission or release of energy.

Sec. 25. NAC 455C.618 is hereby amended to read as follows:

455C.618 If the Mechanical Compliance Section intends to impose an administrative fine pursuant to NAC 455C.506 or 455C.616, a penalty pursuant to NAC 455C.492 or a penalty pursuant to NAC 455C.616 against the holder of a certificate of accreditation as an authorized inspection agency, the Mechanical Compliance Section shall notify the *licensed contractor, the licensed elevator contractor or the* holder of an operating permit, certificate, certificate of competency, certificate of accreditation as an authorized inspection agency or work card of its intention by:

1. Delivering , *either personally by an inspector or by certified mail*, a notice of violation to *the* licensed contractor, the licensed elevator contractor or the holder of the operating permit, certificate, certificate of competency, certificate of accreditation as an authorized inspection agency or work card ; ~~by certified mail;~~

2. Enclosing with the notice of violation:

(a) A statement indicating the legal authority and jurisdiction of the Mechanical Compliance Section to issue the administrative fine or penalty; and

(b) A statement of the reasons for the proposed action, including a citation of the applicable regulations supporting the action and the proposed administrative fine or penalty; and

3. Stating the effective date of the imposition of the proposed administrative fine or penalty upon failure to contest, the procedures for bringing a contest and the procedures for an appeal.

Sec. 26. NAC 455C.626 is hereby amended to read as follows:

455C.626 If the Mechanical Compliance Section intends to suspend, modify or revoke an operating permit, certificate, certificate of competency, certificate of accreditation as an authorized inspection agency or work card issued pursuant to the provisions of this chapter, the Mechanical Compliance Section shall notify the holder of the operating permit, certificate, certificate of competency, certificate of accreditation as an authorized inspection agency or work card of the suspension, modification or revocation by:

1. Delivering , *either personally by an inspector or by certified mail*, a notice of suspension, modification or revocation to the holder of the operating permit, certificate, certificate of competency, certificate of accreditation as an authorized inspection agency or work card ; ~~by certified mail;~~

2. Enclosing with the notice of suspension, modification or revocation:

(a) A statement indicating the legal authority and jurisdiction of the Mechanical Compliance Section to issue the suspension, modification or revocation; and

(b) A statement of the reasons for the proposed action, including a citation of the applicable regulations supporting the action; and

3. Stating the effective date of the suspension, modification or revocation, the procedures for bringing a contest and the procedures for an appeal.

Sec. 27. NAC 455C.634 is hereby amended to read as follows:

455C.634 1. If the Mechanical Compliance Section intends to suspend summarily an operating permit, certificate, certificate of competency, certificate of accreditation as an authorized inspection agency or work card issued pursuant to this chapter, the Mechanical Compliance Section shall notify the holder of the operating permit, certificate, certificate of

competency, certificate of accreditation as an authorized inspection agency or work card of the summary suspension by:

(a) Delivering , *either personally by an inspector or by certified mail*, a notice of the summary suspension to the holder of the operating permit, certificate, certificate of competency, certificate of accreditation as an authorized inspection agency or work card ; ~~{by certified mail;}~~ and

(b) Enclosing with the notice of summary suspension:

(1) A statement indicating the legal authority and jurisdiction of the Mechanical Compliance Section to issue the summary suspension; and

(2) A statement of the reasons for the proposed action, including a citation of the applicable regulations supporting the action or the effect on the general public necessitating the action, or both.

2. The notice of the summary suspension must:

(a) State the effective date of the summary suspension;

(b) Inform the holder of the operating permit, certificate, certificate of competency, certificate of accreditation as an authorized inspection agency or work card that he or she is entitled to contest the summary suspension; and

(c) State that the Mechanical Compliance Section will hold a hearing within 10 business days after the receipt of any contest.

3. Upon the receipt of a notice of summary suspension, the holder of the operating permit, certificate, certificate of competency, certificate of accreditation as an authorized inspection agency or work card shall immediately cease all operations that are the subject of the suspension.

Sec. 28. 1. This section, sections 1 to 6, inclusive, and 8 to 27, inclusive, of this regulation become effective on the date on which this regulation is filed by the Legislative Counsel with the Secretary of State.

2. Section 7 of this regulation becomes effective on the date on which the provisions of 42 U.S.C. § 666 requiring each state to establish procedures under which the state has authority to withhold or suspend, or to restrict the use of professional, occupational and recreational licenses of persons who:

(a) Have failed to comply with a subpoena or warrant relating to a procedure to determine the paternity of a child or to establish or enforce an obligation for the support of a child; or

(b) Are in arrears in the payment for the support of one or more children,

↪ are repealed by the Congress of the United States.