LCB File No. R142-98

PROPOSED REGULATION OF THE DIVISION OF INDUSTRIAL RELATIONS

STATE OF NEVADA DEPARTMENT OF BUSINESS AND INDUSTRY DIVISION OF INDUSTRIAL RELATIONS

In the matter of the amendment of	DIR 98-20
Regulations pertaining to NAC 618,	LCB: R142-98
the Occupational Safety and Health Act	
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EXPLANATION--Matters underscored are new and matters in [brackets] are omitted.

AUTHORITY: NRS 618.295; 618.376; and 618.765

BOILERS AND PRESSURE VESSELS

Chapter 618 of NAC is hereby amended by adding thereto the provisions set forth as sections 1 to 8, inclusive of this regulation.

- **Section 1.** "Contractor" defined. "Contractor" means a contractor, as the term is defined in NRS 624.020.
- **Sec. 2.** "Heat exchanger" defined. "Heat exchanger" means any device, as a radiator, for transferring energy in the form of heat to a cooler medium from a warmer one.
- **Sec. 3.** "Jurisdiction" defined. "Jurisdiction" means the division of industrial relations of the department of business and industry of the State of Nevada.
- **Sec. 4.** "Owner/user inspection organization" defined. "Owner/user inspection organization" means an owner or user of boilers and pressure vessels that maintains a regularly established inspection department, whose organization and inspection procedures meet the requirements of the National Board rules and are acceptable to the jurisdiction.
- Sec. 5. "Structure" defined. "Structure" means any wall, column or equipment in the vicinity of a boiler or pressure vessel being installed.
- **Sec. 6.** Clearance: Copper watertube boilers and water heaters used for domestic hot water or comfort heating. Units of this type of construction shall maintain a clearance of at least 3 feet between each side or end from which maintenance, operation of controls or repairs may be

required and any wall, column, equipment or other structure. A side or end of an individual unit or manufacturers skid mounted units that will not require maintenance, operation of controls or repairs shall maintain a minimum clearance of no less than 6 inches between any wall, column, equipment (stationary or skid mounted) or other structure. Consideration shall also be given to access to the side or end that may require the above mentioned services.

Sec. 7. Safety Appliances; Capacity. Capacity ratings for over pressure relieving devices on boilers or unfired pressure vessels. Safety valves are designed primarily for steam or vapor service and shall be rated in pounds per hour for capacity. Relief valves are designed primarily for liquid service and shall be rated in BTU's per hour for capacity. Safety relief valves are designed for use in vapor or liquid service. When used for steam or vapor service they shall be rated in pounds per hour and when used in heated liquid service they shall be rated in BTU's per hour for capacity. Cold water relief valves may be rated in gallons per hour for capacity.

Sec 8. A person who violates these regulations will be subject to a citation and an administrative fine pursuant to the Nevada Occupational Safety and Health Act.

NAC 618.019 is hereby amended to read as follows:

- "Authorized inspection entity" defined. "Authorized inspection entity" means one of the following:
- 1. The enforcement section.
- 2. An inspection entity licensed to write insurance for a boiler and pressure vessel in [jurisdictions which have] the State of Nevada that employs inspectors who have passed an examination which is equivalent to the examination required in this state and been issued a certificate of competency by the enforcement section and who represent the jurisdiction.
- 3. An owner/user inspection organization.

NAC 618.024 is hereby amended to read as follows:

"Boiler inspector" defined. "Boiler inspector" means an inspector of boilers <u>and pressure</u> vessels in possession of a certificate of competency from the jurisdiction and a current National Board Commission for the inspection of boilers and pressure vessels and who is employed by:

- 1. The division; [or]
- 2. An authorized inspection entity; or
- 3. An owner/user inspection organization.

NAC 618.032 is hereby amended to read as follows:

"Code" defined. "Code" means the applicable,

- 1. Boiler and Pressure Vessel Code of the American Society of Mechanical Engineers [with amendments and interpretations] adopted by the Council of the Society and approved and adopted by the division of industrial relations of the department of business and industry, or
- 2. A Boiler or Pressure Vessel Code as approved by The National Board and accepted by the Jurisdiction; or
- 3. The National Board Inspection Code.

NAC 618.052 is hereby amended to read as follows:

"Factor of safety" defined. "Factor of safety" means the figure arrived at by dividing the pressure which will burst a boiler or pressure vessel by the maximum allowable working pressure as determined by the formulas of the [American Society of Mechanical Engineers in the] code.

NAC 618.053 is hereby amended to read as follows:

"Fired storage water heater" defined. "Fired storage water heater" means a boiler used to store and directly supply potable hot water for external use, which has:

- 1. A 100 percent make-up; and
- 2. A [capacity that exceeds] firing rate of 200,000 British thermal units or more.

NAC 618.055 is hereby amended to read as follows

"High-pressure, high-temperature water boiler" defined. "High-pressure, high-temperature water boiler" means a water boiler intended for operation at pressures in excess of 160 PSIG [and] or at temperatures in excess 250 F.

NAC 618.063 is hereby amended to read as follows:

"Inspection for an operating permit" defined. "Inspection for an operating permit" means an inspection that generates an inspection report which is used by the enforcement section as the basis for issuing, withholding or revoking an operating permit.

NAC 618.103 is hereby amended to read as follows:

"Portable boiler" defined. "Portable boiler" means a boiler which is primarily intended for temporary [location] <u>use</u> and whose construction [and use] permits it to be readily moved from one location to another.

NAC 618.106 is hereby amended to read as follows:

"Power boiler" defined. "Power boiler" means a boiler in which steam or other vapor is generated at a pressure of more than 15 PSIG, which includes a "High-pressure, high-temperature water boiler".

NAC 618.133 is hereby amended to read as follows:

"Standard boiler and pressure vessel" defined. "Standard boiler and pressure vessel" means a boiler or pressure vessel which bears the stamp of [this state,] the American Society of Mechanical Engineers, the American Petroleum Institute in conjunction with the American Society of Mechanical Engineers, the national board, or a standard of construction approved by the national board and acceptable to the jurisdiction. [or any state or political subdivision of a state which has adopted a standard of construction equivalent to that required by the division of industrial relations of the department of business and industry.]

NAC 618.145 is hereby amended to read as follows:

The division of industrial relations of the department of business and industry hereby adopts by reference the national board inspection code, <u>1998 edition</u>, which may be obtained from The

National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, Ohio 43229 for a cost of [\$50] \$70.

NAC 618.148 is hereby amended to read as follows:

1. The division of industrial relations of the department of business and industry hereby adopts by reference the following sections of the [code] ASME Boiler and Pressure Vessel Code, 1998 edition, which are available from the American Society of Mechanical Engineers, 345 East 47th Street, New York, NY 10017 for the cost indicated.

(a) Section I, Power Boilers
(b) Section II, Parts A, B, C and D, Material Specifications
(c) Section IV, Heating Boilers
(d) Section V, Nondestructive [Examination] Testing
(e) Section VI, [Guidelines for] Recommended Rules for the Care and Operation
of Heating Boilers
(f) Section VII, [Rules for] Recommended Guidelines for the Care of Power Boilers [\$100] \$145
(g) Section VIII, [Divisions I and II] Pressure Vessels [each], Divisions 1, 2 & 3 [\$310] \$1,065
(h) Section IX, Welding and Brazing Qualifications
(i) Section X, Fiberglass Reinforced Plastic Pressure Vessels

- 2. The division of industrial relations hereby adopts by reference Controls and Safety Devices for Automatically Fired Boilers, CSD-1, [1992] 1995 edition and addenda, published by the American Society of Mechanical Engineers. This publication and its addenda apply to automatically fired boilers which are directly fired with gas, oil, a combination of gas and oil or electricity, and are available from the American National Standards Institute, 1430 Broadway, New York, NY 10018 for the cost of [\$35] \$54.
- 3. The division of industrial relations hereby adopts by reference the Power Piping Code, B31.1, [1989] 1998 edition and addenda [1b and 1c], published by the American Society of Mechanical Engineers. This publication and its addenda are available from the American Society of Mechanical Engineers, 345 East 47th Street, New York, NY 10017, for a cost of [\$126] \$164.
- 4. The division of industrial relations hereby adopts by reference the National Fuel Gas Code, Z223.1, [1988] 1996 edition, which is available from the American National Standards Institute, 1430 Broadway, New York, NY 10018, for a cost of [\$20] \$40.
- 5. The division of industrial relations hereby adopts by reference the National Electrical Code 1996. This publication is available from the American National Standards Institute, 1430 Broadway, New York, NY 10018 for the cost of \$65.00.
- 6. The division of industrial relations hereby adopts by reference the Uniform Building Code 1997 Volumes 1, 2 and 3 which are available from the International Conference of Building Officials, 5360 South Workman Mill Road, Whittier, CA 90601 for the cost of \$61.25 Volume 1, \$61.25 Volume 2, and \$68.75 Volume 3.
- 7. The division of industrial relations hereby adopts by reference the Uniform Mechanical Code 1997 which is available from the International Conference of Building Officials, 5360 South Workman Mill Road, Whittier, CA 90601 for the cost of \$42.00.

- 8. The division of industrial relations hereby adopts by reference the Uniform Plumbing Code 1997 which is available from the International Association of Plumbing and Mechanical Officials, 20001 Walnut Drive South, Walnut, CA 91789-2825 for a cost of \$45.45.
- 9. The division of industrial relations hereby adopts by reference the Uniform Fire Code 1997 Volumes 1 and 2 which is available from the International Conference of Building Officials, 5360 South Workman Mill Road, Whittier, CA 90601 for the cost of Volume 1 \$55.65 and Volume 2 \$88.20.

NAC 618.151 is hereby amended to read as follows:

The provisions of NAC 618.010 to 618.340, inclusive, sections 1 to 8 inclusive of this regulation do not apply to:

- 1. Boilers and pressure vessels under the control of the Federal Government.
- 2. <u>Unfired</u> pressure vessels meeting the requirements of the United States Department of Transportation for the shipment of liquids or gases under pressure.
- 3. Pressure vessels operating under the laws of other states.
- 4. <u>Unfired</u> pressure vessels having an inside diameter not exceeding 6 inches (152 millimeters).
- 5. <u>Unfired</u> pressure vessels used for domestic purposes and containing cold water under pressure, including those containing air, the compression of which serves only as a cushion.
- 6. Pressure vessels containing water heated by steam or by any other means if none of the following limitations is exceeded:
- (a) An input of heat of [200,000] 199,999 British thermal units per hour (58,600 watts).
- (b) A water temperature of $210 \bigcirc \overline{F}$ (99 $\bigcirc C$.).
- (c) A water capacity of 120 gallons (450 liters).
- 7. <u>Fired storage water heaters</u> [Hot water supply boilers] which are directly fired with oil, gas or electricity when none of the following limitations is exceeded:
- (a) An input of heat of [200,000] 199,999 British thermal units per hour (58,600 watts).
- (b) A water temperature of 210 F (99 C).
- (c) A water capacity of 120 gallons (450 liters).
- 8. Unfired pressure vessels that do not exceed 5 cubic feet in volume and 250 PSIG.
- 9. An unfired [A] pressure vessel which may be classified as a pressure container which is an integral part or component of a rotating or reciprocating mechanical device such as a pump, compressor, turbine, generator, engine and hydraulic or pneumatic cylinder where the primary considerations of or stresses in the design, or both, derived from the functional requirements of the device.
- 10. Unfired pressure vessels used for the storage of compressed air only (air tanks).
- 11. A hot water heater constructed of continuous coils, which is used only to produce steam vapor to clean things such as machinery, equipment and buildings, if:
- (a) The tubing or pipe size does not exceed three-fourths of an inch in diameter and drums and headers are not attached;
- (b) The nominal water containing capacity does not exceed 6 gallons;
- (c) The water temperatures do not exceed 350 F; and
- (d) Steam is not generated within the coil, except that the provisions of NAC 618.010 to 618.340, inclusive, do apply to safety valves on a hot water heater constructed of continuous coils.

- 12. Unfired pressure vessels and piping containing liquid petroleum gas and liquid natural gas.
- 13. Pool boilers or heaters when either the supply or return line has no stop valves installed making it impossible for the unit to build pressure in excess of 15 PSI.

NAC 618.154 is hereby amended to read as follows:

- 1. Examination for [an inspectors certificate of competency] a National Board Inspectors Commission may be given by the jurisdiction in accordance to the code. [will be held at a location to be selected by the chief, on the first Wednesday and for one-half of the first Thursday of March, June, September and December of each year.]
- 2. An applicant for examination must have education and experience <u>required by the code</u>. [equal to at least one of the following:
- (a) A degree in mechanical engineering and 1 year of experience in the design, construction, operation or inspection of high-pressure boilers and pressure vessels.
- (b) A degree in branch of engineering other than mechanical engineering or an associate degree in mechanical technology and 2 years of experience in the design, construction, operation or inspection of high-pressure boilers and pressure vessels.
- (c) A high school diploma or the equivalent of a high school education and 3 years of experience in the construction or repair of high-pressure boilers and pressure vessels or in charge of the operation of high-pressure boilers and pressure vessels or as an inspector of high-pressure boilers and pressure vessels.]
- 3. The application for examination must be:
- (a) Submitted to the enforcement section at least 45 days before the examination; and
- (b) In writing on a form to be furnished by the enforcement section, stating the education of the applicant and listing his employers, the length of time he was employed by each employer and the position held with each employer.

Applications containing false statements will be rejected.

- 4. [If the chief approves the applicants education and experience, the applicant will be given a written examination on the construction, installation, operation, maintenance and repair of boilers and pressure vessels and their appurtenances.
- **5**.] If the applicant:
- (a) Passes the examination; and
- (b) Is employed full time by an authorized inspection entity, the chief <u>may</u> [will] issue the applicant a certificate of competency [and a card for identification]. <u>A card for identification</u> <u>may be issued after the successful applicant receives an inspection commission from the national board.</u>
- [6.] 5. An applicant who fails to pass the examination may not take another written examination within 90 days after the examination.

NAC 618.158 is hereby amended to read as follows:

Renewal. A [certificate of competency and a] card for identification issued by the enforcement section must be renewed each year on or before March 1.

NAC 618.166 is hereby amended to read as follows:

1. After an investigation, the chief may [suspend an] revoke a boiler inspector's certificate of competency if he finds the holder of the certificate:

- (a) Is incompetent;
- (b) Has willfully falsified any statement contained in his application or in a report of any inspection made by him;
- (c) Willfully neglected to inspect a boiler or pressure vessel on or before the expiration of the operating permit; or
- (d) Knowingly failed to report to the enforcement section any boiler or pressure vessel which is required to have a permit but does not.
- 2. The chief will give written notice of a [suspension] revocation to the inspector and his employer within 10 days after the [suspension] revocation is made.
- 3. A person whose certificate of competency has been [suspended] <u>revoked</u> may appeal the [suspension] revocation to the [director of the department of industrial relations] administrator.

NAC 618.170 is hereby amended to read as follows:

- 1. [An] A boiler inspector shall submit to the enforcement section within 30 days after the inspection, on [form NB-5 of The National Board Inspection Code,] a form acceptable to the chief, a report of each inspection he is required to conduct on a newly installed boiler or pressure vessel and a standard or nonstandard boiler or pressure vessel.
- 2. [An inspection made by a special inspector of either a standard or nonstandard boiler or pressure vessel, which is made after the inspection of a newly installed boiler or pressure vessel, must be reported to the enforcement section within 30 days after the inspection on Forms NB-6 and NB-7 of the national board inspection code.
- 3. An owner or user who is approved by the enforcement section to inspect his boilers or pressure vessels may report the inspection in accordance with subsection 2 or upon forms acceptable to the enforcement section.] An inspection for an operating permit may [not] only be made by [an owner or user] a boiler inspector.
- [4. An inspector shall submit a report of inspection to the enforcement section within 30 days after the date on which the inspection of an existing boiler or pressure vessel was performed.]
- 5. An] 3. A boiler inspector shall submit a report of inspection to the enforcement section within 30 days after the date on which the inspection for an operating permit was performed.

NAC 618.172 is hereby amended to read as follows:

- 1. Except as otherwise provided in subsection 4, the owner or user of a boiler or pressure vessel must obtain a valid operating permit before operating a boiler or pressure vessel.
- 2. An operating permit issued by the enforcement section is valid until: [the earliest date of the following:]
- (a) Its date of expiration;
- (b) The date the boiler or pressure vessel for which the permit is issued is removed from the location in which it was installed:
- (c) A defect or condition affecting the safety of the boiler or pressure vessel is discovered; <u>or</u> [(d) Ninety days after the boiler or pressure vessel for which it was issued is no longer insured by an authorized insurance company; or
- (e)] d. It is revoked by the enforcement section.
- 3. The operating permit must be retained on the premises where the boiler or pressure vessel is installed.

- 4. Until the operating permit has been issued, a report of inspection made pursuant to NAC 618.174 authorizes the operation of a boiler or pressure vessel, if:
- (a) The report of inspection recommends that an operating permit be issued; and
- (b) The equipment complies with the requirements of NAC 618.010 to 618.340, inclusive.

NAC 618.173 is hereby amended to read as follows:

An inspection for an operating permit must be an internal inspection when required by the enforcement section. If the enforcement section does not require an internal inspection, the inspection for an operating permit must [be as complete as possible] meet the requirements of NAC 618.175.

NAC 618.174 is hereby amended to read as follows:

- 1. The inspection for [a certificate] <u>an operating permit</u> must be conducted before the expiration date of the current operating permit at a time agreed upon by the <u>boiler</u> inspector and the owner or user.
- 2. An external inspection may be performed by the <u>boiler</u> inspector during reasonable hours [and] without prior notification to the owner or user.
- [3. If, as a result of the external inspection or a determination by other objective criteria, the <u>boiler</u> inspector decides that continued operation of the boiler or pressure vessel constitutes a menace to the safety of employees, the <u>boiler</u> inspector may require an internal inspection, an appropriate pressure test, or both, to evaluate the condition of the boiler or pressure vessel. The owner or user shall prepare the boiler or pressure vessel for the inspection or test as specified by the inspector.]

NAC 618.175 is hereby amended to read as follows:

- 1. The enforcement section will issue, renew or revoke an operating permit based on the report of an inspection for an operating permit by [an authorized] a boiler inspector. Unless the type of inspection is specified in NAC 618.178 and except as otherwise provided in subsections 2 and 3, an inspection must be:
- (a) Internal; or
- (b) If the inspection is of a pressure vessel and the determined thicknesses are included in the report, made by ultrasonic testing.

[The inspector shall indicate on the report of inspection the type of inspection made.]

- 2. If the design or construction of a boiler or pressure vessel is such that an internal inspection is not possible, an external inspection is acceptable.
- 3. An internal inspection is not required to obtain an operating permit for a hot water heating boiler, a hot water supply boiler, a boiler made of cast iron or a potable water heater.
- 4. If a boiler or pressure vessel is found to be unsafe to operate, the <u>boiler</u> inspector shall notify the enforcement section and the enforcement section will suspend the operating permit.
- 5. If the owner or user of a boiler or pressure vessel which is required to be inspected refuses to allow an inspection to be made, the chief shall suspend the operating permit until the owner or user allows the inspection.
- 6. The boiler inspector shall indicate on the report of inspection the type of inspection performed.

NAC 618.178 is hereby amended to read as follows:

- 1. Power boilers must be inspected internally, if the construction and design of the power boiler so permits, at least once each year and externally approximately 6 months after the date of the internal inspection while in operation. If an internal inspection is not possible, a power boiler must be inspected externally at least once every 6 months.
- 2. A high-pressure, high-temperature water boiler must be internally inspected, if the construction and design of the boiler so permits, <u>at least</u> once each year and externally approximately 6 months after the date of the internal inspection, while in operation [, at least once each year.]. <u>If an internal inspection is not possible, a high-pressure, high temperature water boiler must be inspected externally at least once every 6 months.</u>
- 3. Low-pressure steam heating boilers must be inspected externally at least every 12 months and internally, if the construction and design of the [low-pressure steam heating] boiler so permits, at least once every 2 years.
- 4. Hot water heating boilers and hot water supply boilers must be inspected externally at least once every 2 years and internally, if the construction and design of the boiler so permits, at the request of the boiler inspector.
- 5. Lined potable water heaters must be inspected externally at least once every 2 years. The inspection must include operational testing of all controls and safety devices.
- 6. Other fired pressure vessels for which a frequency of inspection is not specified in subsections 1 to 5, inclusive, must be inspected internally, if the construction and design of the pressure vessel so permits, at least once each year.
- 7. Except as otherwise provided in subsection 5, pressure vessels must be inspected internally, if the construction and design of the pressure vessel so permit, at least once every 3 years.
- 8. [An] A boiler inspector employed by the enforcement section or by an authorized inspection entity may require any boiler or pressure vessel [to] be prepared for inspection when, in his opinion, an inspection is necessary to determine the <u>operational</u> safety of the boiler or pressure vessel.
- 9. An [owner or user] owner/user inspection organization who has been authorized by the enforcement section to inspect his own boilers or pressure vessels may request approval from the enforcement section to [inspect his pressure vessels at a different interval] alter the inspection frequency of those objects.
- 10. Upon application from a petroleum company, chemical plant, public utility or other [industry considered by the enforcement section as] employer having a program acceptable to the chief for preventive maintenance and examination, an extension of time between required internal inspections may be granted for a period not to exceed 24 months, if the boilers are inspected externally at intervals of approximately 6 months. The application for an extension of time must be submitted in writing at least 45 days before the required internal inspection. The application must include the history of the power boiler or, if the power boiler is newly installed, [of] or a similar boiler, substantiating that there is no significant deterioration from scaling, corrosion, erosion or overheating. Points of reference established by [the owner or] an authorized inspection entity at the time of the first inspection, must be used to determine the thickness of the walls of the power boiler. If the application is approved after the internal inspection of each power boiler, a record showing the total corrosion and any other conditions which need correction must be sent to the enforcement section.

11. An operating permit issued pursuant to subsection 10 expires 1 year after the date of an internal inspection. Before the expiration of the permit, the boiler must be inspected externally by [an authorized] a boiler inspector who will review the operation logs and records of water treatment. If the owner or user applies for an extension of the permit, the boiler inspector shall submit a report of his inspection and his recommendations to the enforcement section. If the enforcement section approves the application, it may extend a permit for a period not to exceed 6 months. Before the expiration date of the extension, the owner or user must apply again for an extension and the boiler must again be inspected externally by [an authorized] a boiler inspector. A second extension may be issued for an additional period of 6 months.

NAC 618.184 is hereby amended to read as follows:

If a boiler or pressure vessel has not been properly prepared for [an internal inspection] the required inspection, or if the owner or user fails to comply with the requirements for a hydrostatic or pressure test, the boiler inspector may decline to make the inspection or test and the operating permit will be withheld or revoked until the owner or user complies with the requirements.

NAC 618.187 is hereby amended to read as follows:

- 1. If a boiler or pressure vessel is jacketed so that the longitudinal seams of shells, drums or domes cannot be seen, sufficient jacketing, setting wall or other form of casing or housing must be removed to permit reasonable inspection of the seams, rivets and other areas necessary to determine the condition and safety of the boiler or pressure vessel if the information cannot be determined by other means.
- 2. If the <u>boiler</u> inspector, as the result of conditions disclosed at the time of inspection, requires the removal of the interior or exterior lining, covering or brickwork to expose parts of the boiler or pressure vessel not normally visible, the owner or user shall remove such material to permit a proper inspection to ascertain [thickness] <u>condition and thickness of the covered areas</u>.

NAC 618.193 is amended to read as follows:

If a [special] boiler inspector, upon his [first] inspection of a boiler or pressure vessel, finds that the boiler or pressure vessel or any appurtenance thereof is in [such] an unsafe condition [that his insurance company would refuse to issue insurance for it], the boiler inspector [insurance company] shall immediately notify the enforcement section and submit a report on the defects. [If the special inspector finds a boiler or pressure vessel to be unsafe for further operation, he shall immediately notify the owner or user in writing, stating what repairs or other corrective measures are required. Unless the owner or user makes the repairs or institutes other corrective measures promptly, the special inspector shall immediately notify the enforcement section] If, as a result of the external inspection or a determination by other objective criteria, the boiler inspector decides that continued operation of the boiler or pressure vessel constitutes a unsafe condition to the employees, the inspector may require an internal inspection, an appropriate pressure test, or both, to evaluate the condition of the boiler or pressure vessel. The owner or user shall prepare the boiler or pressure vessel for the inspection or test as specified by the boiler inspector. Until the corrections have been made, the boiler or pressure vessel involved must not be operated and the operating permit [will] may be [suspended] revoked by the chief.

NAC 618.208 is amended to read as follows:

A boiler or pressure vessel constructed in a manner which meets the standards of this state, having the standard stamping of another state that has adopted a standard of construction equivalent to the standard of this state, the American Society of Mechanical Engineers or the national board, [will] may be accepted for installation in this state by the enforcement section if the contractor installing the boiler or pressure vessel applies to the enforcement section for a permit for installation in accordance with NAC 618.214 before the construction or installation begins. The application must include the American Society of Mechanical Engineer's data report of the manufacturer concerning the construction of the boiler or pressure vessel, or the equivalent if the construction code used was other than ASME and it is acceptable to The National Board and the Jurisdiction, unless the boiler is constructed of cast iron.

NAC 618.214 is amended to read as follows:

- 1. A contractor must obtain a permit for installation before installing a new boiler or pressure vessel in this state.
- 2. A request for a permit for installation must be submitted to the enforcement section in writing and include:
- (a) The American Society of Mechanical Engineer's data report of the manufacturer; and
- (b) The plans and specifications of the boiler room, which designate the location of the boilers and pressure vessels in compliance with the requirements of NAC 618.271.
- 3. Except for an existing or a reinstalled boiler or pressure vessel, a boiler or pressure vessel may not be installed in this state unless it has been registered with the national board.
- 4. Before a secondhand or portable boiler or pressure vessel may be installed or shipped for installation into this state, the owner, user or contractor must apply to the enforcement section for approval to install it. The request for a permit for installation must include a report [an] of inspection by [an] a boiler inspector holding a current commission [from] issued by the national board. The fittings and appurtenances of the boiler or pressure vessel must comply with the requirements for the [new] installation of a new boiler or pressure vessel.
- 5. Any installation of a boiler or pressure vessel which is not included in NAC 618.010 to 618.340, inclusive, or sections 1 to 8, inclusive, will be considered as a new installation and must be referred to the enforcement section for [clarification] acceptance.

NAC 618.215 is amended to read as follows:

- 1. If a boiler or pressure vessel is removed from its original site and reinstalled at the same location or reinstalled at a new location without a change of ownership before reinstallation, the contractor must apply to the enforcement section for a permit for installation before installing the boiler or pressure vessel. The fittings and appurtenances must comply with the requirements for [a new] the installation of a new boiler or pressure vessel.
- 2. If a standard boiler or pressure vessel or one which is stamped by the American Society of Mechanical Engineers is to be moved to another state for temporary use or repair, the owner or user must apply to the enforcement section for approval to reinstall the boiler or pressure vessel within this state.

NAC 618.217 is amended to read as follows.

- 1. Upon completion of the installation or at the time of the inspection for the initial operating permit, each boiler or pressure vessel must be stamped, tagged or numbered as close as practicable to the [stamp of the American Society of Mechanical Engineers or the national board by the inspector] original manufacturers nameplate or stamping with a number of the State of Nevada. The stamp, tag or number must consist of four digits at least 5/16 of an inch in height, preceded with the last two digits of the year in which the boiler or pressure vessel is stamped and followed by the letters NV.
- 2. The stamp, tag or number must be permanent in nature, must not be concealed by lagging or paint and must be exposed at all times unless a suitable record is kept of the location of the stamp, tag or number so that it may be readily uncovered at any time.

NAC 618.220 is amended to read as follows.

Any <u>boiler</u> inspector may decrease the working pressure <u>and/or temperature</u> on any [existing installation of a] boiler or pressure vessel if the condition of the boiler or pressure vessel warrants the decrease. If the owner or user does not concur with the <u>boiler</u> inspector's decision, the owner or user may appeal the decision to the chief. The chief may request a joint inspection [by a boiler inspector and a special inspector]. Each inspector shall render his report to the chief, and the chief shall render the final decision, based upon the data contained in all of the reports submitted by the inspectors.

NAC 618.233 is amended to read as follows:

All connective pipes which are subjected to pressure emanating from a:

- 1. Heating boiler;
- 2. Hot water supply boiler;
- 3. Fired storage water heater;
- [2.] 4. Power/process boiler; or
- [3.] 5. Unfired pressure vessel,

are part of the installation of the boiler or pressure vessel and must comply with the requirements for the boiler or pressure vessel. The inspection of the initial installation of such pipes must be performed by a National Board Commissioned boiler inspector.

NAC 618.237 is hereby amended to read as follows:

The pipe that is used to feed water into a boiler, pressure vessel or water heater must not be installed or connected to any domestic water supply unless [a] an approved type backflow prevention device is installed to prevent contamination or pollution of the water supply.

NAC 618.241 is amended to read as follows:

- 1. Repairs and alterations to all boilers and pressure vessels must conform to the applicable provisions of the national board inspection code.
- 2. If a repair or alteration to a boiler or pressure vessel is necessary, [an] <u>a boiler</u> inspector must be consulted about the best method of making the repair or alteration. After the repair or alteration is made, the <u>boiler</u> inspector shall inspect it <u>as required by the code</u>. The contractor who makes such repairs or alterations shall submit an [R-1 report] appropriate National Board

- $\underline{\mbox{\ensuremath{\not{e}}} R} \cong \mbox{form}$ to the enforcement section within 30 days after completion of the repair or alteration.
- 3. The contractor who makes repairs or alterations must be qualified pursuant to the national board inspection code and hold a current C-1 contractors license.
- 4. The contractor who makes repairs <u>or alterations</u> by fusion welding to the pressure parts of a boiler or pressure vessel must hold a valid <u>certificate of authorization and stamp designated as [stamp bearing] §R issued by the national board [.]</u>
- [5. A contractor shall not make any alterations to a boiler or pressure vessel unless he holds a valid certificate of authorization and stamp from The National Board] which applies to the repair or alteration [s].
- 5. Repairs by fusion welding must not be made to the pressure parts of a boiler constructed of cast iron without prior authorization from the chief.

NAC 618.242 is hereby amended as follows:

A person who is in the business of repairing safety valves must have a valid certificate of authorization and stamp designated as $VR \ge [from]$ issued by the national board.

NAC 618.250 is hereby amended to read as follows:

- 1. The use of weighted-lever safety valves, or safety valves having either the seat or disk of cast iron is prohibited. Valves of this type or construction must be replaced by direct spring-loaded, pop-type valves that conform to the requirements of section I of the code.
- 2. Each boiler must have at least one safety valve certified by the American Society of Mechanical Engineers or The national board and, if it has more than 500 square feet of waterheating surface or an input of electric power of more than 1,100 kw, it must have two or more such safety valves.
- 3. The valve must be connected to the boiler independent of any other connection for steam and attached as close as possible to the boiler, without unnecessary intervening pipe or fittings.
- 4. No valves of any description may be placed between the safety valve and the boiler or on the escape pipe, if used, between the safety valve <u>discharge</u> and <u>the</u> atmosphere. [When an escape] <u>A discharge pipe</u> [is used, it] must be at least the full size of the discharge of the safety valve and fitted with an open drain to prevent water lodging in the upper part of the safety valve or escape pipe. When an elbow is placed on a safety valve or [escape] <u>discharge pipe</u>, it must be located close to the outlet of the safety valve or [the escape] <u>discharge pipe</u> and be anchored and supported securely. All safety discharges must be so located or piped as to be carried clear of walkways or platforms.
- 5. The capacity of the safety valve of each boiler must be such that the safety valve will discharge all the steam that can be generated by the boiler without allowing the pressure to which any valve is set to rise more than 6 percent above the working pressure when the steam is discharged or 6 percent above the maximum allowable working pressure of the boiler, whichever is less.
- 6. One or more safety valves on every boiler must be set at or below the maximum allowable working pressure. The remaining valves may be set within a range of 3 percent above the maximum allowable working pressure, but the range of the setting of all the safety valves on a boiler may not exceed 10 percent of the highest pressure to which any valve is set.

- 7. When two or more boilers operating at different pressures and settings of the safety valve are interconnected, the lower pressure boilers or interconnected piping must be equipped with safety valves of sufficient capacity to prevent overpressure, considering the maximum generating capacity of all boilers.
- 8. In those cases where the boiler is supplied with feed water directly from water mains without the use of feeding apparatus other than return traps, no safety valve may be set at a pressure greater than 94 percent of the lowest pressure obtained in the supply main feeding the boiler.
- 9. The relieving capacity of the safety valves on any boiler must be checked by one of the following methods, and if found to be insufficient, additional valves must be provided:
- (a) By making an accumulation test, which consists of shutting off all other steam discharge outlets from the boiler and forcing the fires to the maximum. The safety valve capacity must be sufficient to discharge all the steam that can be generated by the boiler without allowing the pressure to rise more than 6 percent above the highest pressure at which any valve is set and in no case to rise more than 6 percent above the maximum allowable working pressure of the boiler. This method must not be used on a boiler with a superheater or reheater or on a high-pressure, high-temperature water boiler.
- (b) By measuring the maximum amount of fuel that can be burned and computing the corresponding capacity for evaporation or generation of steam upon the basis of the heating value of this fuel. These computations must be made as outlined in the appendix of section I of the code.
- (c) By measuring the maximum amount of feed water that can be evaporated.
- 10. When either of the methods outlined in paragraph (b) or (c) of subsection 8 is employed, the sum of the safety valve capacities must be equal to or greater than the maximum evaporative capacity or the maximum steam generating capacity of the boiler.
- 11. Capacity rating of over pressure relieving devices for steam or vapor service shall be in pounds per hour and in BTU's per hour for water or liquid heated by direct or indirect means.

NAC 618.253 is amended to read as follows:

- 1. Each steam boiler must have one or more safety valves certified by the American Society of Mechanical Engineers or the national board which is of the spring-pop type, adjusted and sealed to discharge at a pressure not to exceed 15 PSIG. Seals must be attached in a manner to prevent the valve from being taken apart without breaking the seal. The safety valves must be arranged so that they cannot be reset to relieve at a higher pressure than the maximum allowable working pressure of the boiler. A connection for the body drain below seat level must be provided by the manufacturer, which must not be plugged during or after field installation. For valves exceeding 2-inch pipe size, the drain hole must be tapped not less than 3/8-inch pipe size. For valves which are less than 2 inches, the drain hole may not be less than [one-quarter of an] 1/4-inch in diameter.
- 2. No safety valve for a <u>low pressure</u> steam boiler may be smaller than [one-half of an] <u>3/4-inch</u>. No safety valve may be larger than 4\(\exists\) inches. The inlet opening must have an inside diameter equal to or greater than the seat diameter.
- 3. The minimum relieving capacity of the valve must be determined by the marking of the capacity on the boiler.
- 4. The minimum valve capacity in pounds per hour must be the greater figure determined:

- (a) By dividing the maximum output in British thermal units at the boiler nozzle obtained by the firing of any fuel for which the unit is installed by 1,000; or
- (b) On the basis of the pounds of steam generated per hour square foot of heating surface as given in the following table:

Minimum Pounds of Steam Per Hour Per Square Foot of Heating Surface

	Firetube	Watertube
Boiler Heating Surface:	Boilers	Boilers
Hand fired	5	6
Stoker fire	7	8
Oil, gas or pulverized fuel fired	8	10
Waterwall Heating Surface:		
Hand fired	8	8
Stoker fired	10	12
Oil, gas or pulverized fuel fired	14	16

- 5. For the purposes of this table:
- (a) When a boiler is fired only by a gas which gives a heat value not in excess of 200 British thermal units per cubic foot, the minimum safety valve or safety relief valve relieving capacity may be based on the value given for hand fired boilers above.
- (b) The minimum safety valve or safety relief valve relieving capacity for electric boilers must be 3\bigsup pounds per hour per kilowatt input.
- 6. The safety valve capacity for each steam boiler must be such that with the fuel-burning equipment installed, and operated at maximum capacity, the pressure cannot rise more than 6 PSIG above the maximum allowable working pressure.
- 7. When operating conditions are changed or [an] additional boiler heating surface is installed, the valve capacity must be increased if necessary to meet the new conditions in accordance with the code. The additional valves required may be installed on the outlet piping if there is no intervening valve.
- 8. If there is any doubt as to the capacity of the safety valve, an accumulation test must be run as provided in section VI of the code.
- 9. No valve of an description may be placed between the safety valve and the boiler, nor on the discharge pipe between the safety valve and the atmosphere. The discharge pipe must be at least full size and be fitted with an open drain to prevent water from lodging in the upper part of the safety valve or in the discharge pipe. When an elbow is placed on the outlet for the safety valve or the discharge pipe, it must be located close to the outlet or the discharge pipe and must be securely anchored and supported. All discharges for safety valves must be so located or piped as not to endanger persons working in the area.

NAC 618.256 is amended to read as follows:

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 pop action when tested by steam. When 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 percent if the maximum allowable working pressure exceeds 60 PSIG. Safety relief valves must be spring loaded. Safety relief valves must be so arranged that they cannot be reset at a higher pressure than the maximum permitted by this subsection.

- 2. No material which is likely to fail because of deterioration or vulcanization when it is subjected to a saturated steam temperature which corresponds to test pressure for capacity may be used for any part of the safety relief valve.
- 3. No safety relief valve may be smaller than three-quarters of an inch or larger than 4 inches in a standard pipe size, except that boilers having a heat input not greater 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. In no case may the minimum opening through any part of the valve be less than one-fourth of an inch in diameter or an equivalent area.
- 4. [The required capacity for relieving steam, in pounds per hour, of the device for relieving pressure on a boiler must be the greater of that determined:
- (a) By dividing the maximum output in British thermal units at the boiler nozzle obtained by the firing of any fuel for which the unit is installed by 1,000; or
- (b) On the basis of pounds of steam generated per hour per square foot of boiler heating surface as given in paragraph (b) of subsection 3 of NAC 618.253.
- 5.] The capacity of the safety relief valve for each boiler must be such that, with the fuel-burning equipment installed and operated at maximum capacity, the pressure cannot rise more than 6 PSIG above the maximum allowable working pressure for pressure up to and including 60 PSIG and 10 percent of maximum allowable working pressures over 60 PSIG.
- [6.] 5. When operating conditions are changed or [an] additional boiler heating surface is installed, the capacity of the valve must be increased, if necessary, to meet the new conditions and must be in accordance with subsection [5] 4 and in accordance with the code. The additional valves required because of changed conditions may be installed on the outlet piping if there is no intervening valve.
- [7.] <u>6.</u> If there is any doubt as to the capacity of the safety relief valve, an accumulation test must be run as provided in section VI of the code.
- [8.] 7. No valve of any description may be placed between the safety relief valve and the boiler, nor on the discharge pipe between the safety 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. When 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 persons working in the area.

NAC 618.259 is hereby amended to read as follows:

- 1. No person [may] shall install, operate, sell or offer for sale nonstandard boilers [and] or pressure vessels in this state without permission of the enforcement section.
- 2. If a nonstandard boiler or pressure vessel which is now in use in this state is removed from [this state] service, it [may] must not be [brought] put back in service [and] or reinstalled without the permission of the [enforcement section] chief.

NAC 618.271 is hereby amended to read as follows:

Except as otherwise provided in NAC 618.272 and section 6, if boilers are replaced [with boilers of the firetube or watertube type,] 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 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. When 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.

NAC 618.292 is hereby amended to read as follows:

- 1. A permanent source of outside air must be provided for the room in which the boiler is located to permit satisfactory combustion of the fuel as well as proper ventilation of the room under normal operating conditions. Combustion air must not be taken from a refrigeration machinery room.
- 2. The total requirements of the burners for all fired pressure vessels in the room for the boiler must be used to determine the size of the louver, whether the boilers are fired by coal, oil or gas in compliance with the applicable provisions of Controls and Safety Devices for Automatically Fired Boilers, CSD-1 (1998).

NAC 618.298 is hereby amended to read as follows:

- 1. Except as otherwise provided in subsection 5, a high-pressure, high-temperature water boiler and a power boiler must be attended by an operator who meets the qualifications set forth in NAC 618.290.
- 2. A steam boiler must be attended by an operator, unless the boiler is equipped with each of the following functioning safety devices:
- (a) A cutoff for low water or low fuel;
- (b) An automatic feed water regulator;

- (c) Fireside regulators and controls;
- (d) An audible alarm to indicate low water; and
- (e) A pressure control.
- 3. The operator shall personally check the operation of the boiler, the necessary auxiliaries and the level of water in the boiler at intervals necessary to ensure the boiler's safe operation. The boiler and its auxiliaries must be checked at least once every 60 minutes and must not be left unattended for periods in excess of the time required to evaporate the water from the normal operating level to the lowest water level permissible when the feed water is shut off or the boiler is forced to its maximum capacity. A log noting the time of all checks and observations must be kept in the boiler room.
- 4. When attendance of the boiler is required pursuant to this section, a time clock to automatically start or stop the operation of the boiler must not be used, unless the timing mechanism is a device or system which has been approved by the chief.
- 5. High-pressure, high-temperature water boilers and power boilers do not need to be attended, if the boiler is equipped with the following functioning protective devices, as required by the applicable provisions of Controls and Safety Devices for Automatically Fired Boilers, CSD-1 (1998):
- (a) If the boiler is operated at less than supercritical pressure:
 - (1) A cutoff for low water or low fuel;
 - (2) An automatic feed regulator;
 - (3) Fireside regulators and controls;
 - (4) An audible alarm to indicate low water;
 - (5) A pressure control; and
- (6) A programmed flame safeguard system with an audible alarm on burners equipped with spark ignition.
- (b) If the boiler is operated at supercritical pressure $(3206 \text{ PSI and } 705 \bigcirc F)$, it must include all the devices described in paragraph (a) and:
 - (1) A cutoff device for high temperature or fuel; and
 - (2) An audible alarm to indicate high temperature.

NAC 618.064 is hereby repealed.

NAC 618.129 is hereby repealed.

NAC 618.156 is hereby repealed.

NAC 618.195 is hereby repealed.

NAC 618.244 is hereby repealed.

ELEVATORS, DUMBWAITERS, ESCALATORS, MOVING WALKS, AND RELATED EQUIPMENT

Chapter 618 of NAC is hereby amended by adding thereto a new section to read as follows:

A person who violates these regulations will be subject to a citation and an administrative fine pursuant to the Nevada Occupational Safety and Health Act.

NAC 618.435 is amended to read as follows:

'Related equipment" defined. "Related equipment" means any manlifts, personnel hoists and any other related equipment designated by the [administrator] chief.

NAC 618.4355 is amended to read as follows:

"Safety code" defined. "Safety code" means the Safety Code for Elevators and Escalators, A17.1, [1990] 1996 edition, published by the American Society of Mechanical Engineers.

NAC 618.448 is amended to read as follows:

[Adoption by reference of certain codes, manuals and standards.

- 1. The following codes, manuals, and standards are hereby adopted by reference for the design, construction, installation, operation, inspection, testing, maintenance, alteration and repair of elevators, dumbwaiters, escalators, moving walks and related equipment at the cost listed:
- (a) Safety code, including appendices A to H, inclusive, for a cost of \$120, with the following amendments and deletions:
- 1. The division of industrial relations of the department of business and industry hereby adopts by reference the Safety Code for Elevators and Escalators, A17.1, [1990] 1996 edition and addenda, published by the American Society of Mechanical Engineers, including appendices A to J, inclusive, for a cost of \$125, with the following amendments and deletions:
- (1) Rule 100.1(c)(2) -Observation Elevators. Fixed guards must have a height of at least 8 feet and be made of unperforated material. If glass is used in the elevator it must be laminated and meet the requirements of rule Z97.1 of the USA Standard, [1984] 1994 edition, published by the American National Standards Institute, at a cost of [\$13] \$24.
- (2) Rule 102(c)(4)-Main Line Power. Main line electrical power supplied to the elevator must not be disconnected by the automatic activation of a sprinkler system or fire alarm.
 - (3) Rule 1001.1 is deleted.
- (4) Rule 1201.1A(14)(b)-Cylinder Alteration or Repair. If any alteration or repair is made to a cylinder or if it is replaced or sleeved, it must be inspected for conformance with Rules 300.3 and 302.3 by an inspector employed by the enforcement section.
- (5) In rule 211.3-Firefighter's Service-Automatic Elevators, delete the standards which apply to elevators covered by chapter 477 of NRS.
 - (6) Delete part V-Private Residence Elevators.
- (7) Delete part XXI-Private Inclined Chairlifts and Inclined and Vertical Wheelchair Lifts.
 - (8) Delete rule 204.2d-Side Emergency Exists.
 - (9) Delete rule 111.12-Restricted Opening of Car Doors.
- (b) [Inspectors' Manual for Elevators and Escalators, A17.2, 1988 edition, promulgated by the American National Standards Institute in conjunction with the American Society of

- Mechanical Engineers, at a cost of \$70.] <u>Inspector's Manual for Electric Elevators</u>, A17.2.1 1996 edition, published by the American Society of Mechanical Engineers, at a cost of \$52.
- (c) <u>Inspector's Manual for Hydraulic Elevators</u>, A 17.2.2-1997 edition, published by the American Society of Mechanical Engineers, at a cost of \$54.
- (d) <u>Inspector's Manual for Elevators and Moving Walks</u>, A17.2.3-1994 edition, published by the American Society of Mechanical Engineers, at a cost of \$42.
- [(c)] (e) Safety Requirements for Personnel Hoists, A10.4, 1990 edition, published by the American National Standards Institute, at a cost of [\$30] \$65.
- [(d)] (f) Safety Standards for Manlifts, A90.1, [1992] 1997 edition, promulgated by the American National Standards Institute in conjunction with the American Society of Mechanical Engineers, at a cost of [\$33] \$39.
- [(e)] (g) Handbook A17.1, [1990] $\underline{1996}$ edition, published by the American Society of Mechanical Engineers, at a cost of [\$116] \$105.
- [(f)] (h) Safety Code for Existing Elevators and Escalators, A17.3, [1990] 1996 edition, published by the American Society of Mechanical Engineers, at a cost of \$55.
- [(g)] (i) Specifications for Making Buildings and Facilities Accessible to and Usable by Physically Handicapped People, A117.1, sections 4.10 and 4.11, [1986] 1998, published by the American National Standards Institute, at a cost of [\$20] \$22.00.
- 2. The codes, manuals and standards set forth in subsection 1 which are published by the American Society of Mechanical Engineers may be obtained from the American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.
- 3. The codes, manuals and standards set forth in subsection 1 which are published or promulgated by the American National Standards Institute may be obtained from the American National Standards Institute, 1430 Broadway, New York, New York 10018.

NAC 618.457 is hereby amended to read as follows:

Operating permits: General requirements; issuance; operation without permit.

- 1. <u>An</u> operating permit[s] will be issued by the enforcement section to the owner or lessee of every elevator, dumbwaiter, escalator, moving walk or related equipment and of every existing elevator, escalator, moving walk or related equipment if the report of inspection indicates the equipment is in compliance with NAC 618.400 to 618.484, inclusive.
- (a) An operating permit will include the number assigned by the enforcement section for the elevator, dumbwaiter, escalator, moving walk or related equipment.
- (b) Operating permits must include the manufacturer's serial number that is affixed to the elevator, dumbwaiter, escalator, moving walk or related equipment.
- (c) The operating permit must be kept at the same location as the elevator, dumbwaiter, escalator, moving walk or related equipment.
- 2. The permit[s] will be issued within:
- (a) Thirty days for existing elevators, escalators, moving walks and related equipment; and
- (b) Fifteen days for new elevators, dumbwaiters, escalators, moving walks and related equipment, after the date of the inspection, unless the time is extended by the enforcement section. Except as otherwise provided in subsection 6, no elevator, dumbwaiter, escalator, moving walk or related equipment for which a permit is required may be operated by the owner or user unless the operating permit has been issued or an interim approval has been granted.

- 3. [The operating permit will be issued for a period determined by the enforcement section.] An operating permit will be issued for a period not to exceed one year for elevators, dumb waiters and wheel chair lifts or 6 months for escalators or moving walks or in accordance with the Safety Code.
- 4. If the report of the inspection required before an operating permit is issued indicates a violation of NAC 618.400 to 618.484, inclusive, or of the detailed plans and specifications approved by the enforcement section pursuant to NAC 618.442, the enforcement section will give notice to the appropriate person of changes necessary for compliance. After the changes have been made, the enforcement section will issue an operating permit to the owner or user.
- 5. If the report of the inspection indicates that an elevator, dumbwaiter, escalator, moving walk or related equipment is unsafe and that its continued operation may be dangerous, the enforcement section will refuse to issue, or will suspend or cancel the operating permit and require the owner or lessee to discontinue the use of the elevator, dumbwaiter, escalator, moving walk or related equipment until it has been made safe and is in compliance with the requirements of NAC 618.400 to 618.484, inclusive.
- 6. Until an operating permit is issued by the enforcement section, the report of inspection is authorization to operate the elevator, dumbwaiter, escalator, moving walk or related equipment, if:
- (a) The report of inspection authorizes the issuance of an operating permit; and
- (b) The equipment is in compliance with NAC 618.400 to 618.484, inclusive.

NAC 618.464 is hereby amended to read as follows:

Issuance of limited operating permit.

- 1. The enforcement section will issue a limited operating permit to allow an elevator, [a] dumbwaiter, [an] escalator, [a] moving walk or related equipment to be used during its installation or alteration.
- 2. A limited operating permit will not be issued for an elevator until the elevator has been tested as required by the safety code.
- 3. A limited operating permit will be issued for no longer than 90 days. The elevator, dumbwaiter, escalator, moving walk or related equipment for which the permit is issued may be inspected by the enforcement section every 30 days.

NAC 618.478 is hereby amended to read as follows:

Numbering of equipment. All new and existing elevators, dumbwaiters, escalators, moving walks and related equipment must be assigned a number by the [mechanical section] <u>inspector</u>. The number must be painted on or attached to the elevator car or to the balustrade of the escalator or the moving walk, in plain view, and to the driving mechanism. The number will be shown on all required permits.

NAC 618.458 is hereby repealed. NAC 618.460 is hereby repealed.

CONSTRUCTION PROJECTS

NAC 618.507 is amended to read as follows:

- 1. Except as otherwise provided in subsection 4, the general contractor or owner, if there is no general contractor, of a construction project shall install an elevator or personnel hoist for transporting workers [must be installed and used] in the construction of any building or structure which is more than 60 feet above ground level, or more than 48 feet below ground level.
- 2. For the purposes of this section:
- (a) The height of the building or structure must be determined by measuring from the ground level to the highest structural level, including any parapet wall, mechanical room, stair tower or elevator penthouse structure, but not including any antenna, smokestack, flagpole or other similar attachment.
- (b) The depth of the building or structure must be determined by measuring from the ground level to the lowest floor level. The lowest level of a building or structure does not include any local depression such as a sump or an elevator pit.
- (c) "Ground level" means the level of the primary construction entrance to the building or structure.
- (d) In computing the height of a building or structure, the depth must not be considered and in computing the depth of a building or structure, the height must not be considered.
- 3. An elevator or hoist required by this section must:
 - (a) Be installed within 10 working days from when:
- (1) The building or structure is more than 60 feet above ground level, or more than 48 feet below ground level; and
 - (2) The floor or roof decking is beginning to be installed.
- [(a)] (b) Operate to a level not less than three floors below the highest floor erected, or if the building or structure extends more than 48 feet below ground level, to the lowest level of the building or structure.
- [(b)] (c) Be equipped with suitable voice communication equipment which will allow for communication between the elevator or hoist and each floor, for use in an emergency.
- 4. Upon the written request of the owner or contractor of a building or structure under construction, the enforcement section may approve alternate means of access at locations where the installation or construction of an elevator for transporting employees is not feasible, if the enforcement section provides written notice to and consults with all affected parties, as determined by the enforcement section. Alternate means of access means:
- (a) A crane with a personnel basket, which is available and accessible in the immediate work area, that is under positive power up and down if:
 - (1) Employees in the basket are protected by safety belts; and
 - (2) Lanyards are attached from the safety belts to a hook on the cable for the crane.
- (b) Suspended scaffolds that are driven by power if employees are protected by safety belts that are secured to independent safety lines and there is a device approved by the enforcement section that controls the descent of the scaffolds.
 - (c) Appropriate elevating and rotating platforms that are vehicle mounted.
 - (d) Any other means approved by the enforcement section.

WRITTEN SAFETY PROGRAM

Chapter 618 of NAC is hereby amended by adding thereto a new section to read as follows:

- 1. In accordance with NRS 618.376, the contents of the rights and responsibilities of employers and employees to promote safety in the workplace document must conform with SCATS Form IE, 0-302 entitled "Nevada Workplace Safety: Your Rights and Responsibilities."
- 2. The division will publish "Nevada Workplace Safety: Your Rights and Responsibilities," in English, Spanish and other languages as appropriate.

NAC 618.538 is amended to read as follows:

An employer who enters into business in this state after May 18, 1994, shall, within 60 days after the date on which his [first] eleventh employee is hired in this state, establish a written safety program in accordance with NRS 618.383 and NAC 618.540 and 618.542.

RECORDS AND REPORTS

NAC 618.550 \(\hat{h} \) 2 is amended to read as follows:

2. "Enforcement section" means the <u>occupational safety and health</u> enforcement section of the division of industrial relations of the department of business and industry.

NAC 618.550 8 4 is amended to read as follows:

4. "First aid" is any single treatment, and any followup visit for the purpose of observation of minor scratches, cuts, burns, splinters and so forth which do not ordinarily require medical care. Such treatment, and a [following] followup visit for the purpose of observation, is considered first aid, even though provided by a physician or registered professional personnel.

NAC 618.550 6 5 is amended to read as follows:

5. "Lost workdays" is the number of days, whether consecutive or not, after but not including the day of injury or illness, during which the employee would have worked but could not perform all or any part of his normal assignment during all or any part of the workday or shift because of the occupational injury or illness.

NAC 618.550 & 7 is amended to read as follows:

- 7. "Recordable occupational injuries or illnesses" means any occupational injuries or illnesses which result in:
- (a) Fatalities, regardless of the time between the injury and death, or the length of the [illnesses] illness;
 - (b) Lost workday cases, other than fatalities, that result in lost workdays; or

(c) Nonfatal cases without lost workdays which result in transfers to other jobs or the termination of employment, or require medical treatment other than first aid, or involve loss of consciousness or restriction of work or motion.

This category also includes any diagnosed occupational illnesses which are reported to the employer but are not classified as fatalities or lost workdays.

NAC 618.574 81 is amended to read as follows:

1. The records provided for in NAC 618.556, 618.562, 618.565 and 618.571, including Form Nos. 200, [100 and 102] and 101, or their equivalent, must be retained in each establishment for 5 years following the end of the year to which they relate.

NAC 618.5580 is amended to read as follows:

An employer who had no more than 10 employees at any one time during the calendar year immediately preceding the current calendar year need not comply with any of the requirements of this rule, except he shall:

- 1. Report any fatal accident or accident resulting in the hospitalization of [five] three or more employees;
- 2. Maintain a log and summary of occupational injuries and illnesses; and
- 3. Make reports upon being notified in writing by the enforcement section that the employer has been selected to participate in a statistical survey of occupational injuries and illnesses.

NAC 618.589 is amended to read as follows:

- 1. If an employer's establishment is classified within major groups 55 to [69] 67, inclusive, [71 to 74, inclusive, 77, 78] 72, 73, 78 or 81 to 89, inclusive, of the Standard Industrial Classification Manual, [1972] 1987 edition, he is not required to comply with the reporting requirements contained in NAC 618.550 to 618.586, inclusive, for that establishment, except that he shall:
- (a) Report fatal accidents or accidents requiring the hospitalization of employees pursuant to [NAC 618.568,] NRS 618.378, and
- (b) Maintain a log and summary of occupational injuries and illnesses <u>and make reports</u> upon receiving written notification from the Bureau of Labor Statistics of the United States Department of Labor that he has been selected to participate in a statistical survey of occupational injuries and illnesses.
- 2. The Standard Industrial Classification Manual, [1972] 1987 edition, prepared by the Office of Management and Budget, is hereby adopted by reference. A copy of this manual may be obtained from the [Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402, for the price of \$15.] National Technical Information Service, Springfield, Virginia, 22161, for a price of \$30.00.

NAC 618.568 is hereby repealed.

ENFORCEMENT

Chapter 618 of NAC is hereby amended by adding thereto the provisions set forth as sections 1 to 17, inclusive, of this regulation.

- **Section 1.** As used in section 1 to 17, inclusive, unless the context otherwise requires, the words and terms defined in sections 2 to 6, inclusive, of this regulation have the meanings ascribed to them is those sections.
- **Sec. 2.** "Abatement" means action by an employer to comply with a cited standard or regulation or to eliminate a recognized hazard identified by the enforcement section during an inspection.

Sec. 3. "Abatement date" means:

- 1. For an uncontested citation item, the later of:
 - (a) The date in the citation for abatement of the violation;
- (b) The date approved by the enforcement section as a result of request for a modification of time for the abatement of a violation; or
 - (c) The date established in a citation by an informal settlement agreement.
- 2. For a contested citation item for which the Board has issued a final order affirming the violation, the later of:
 - (a) The date identified in the final order for abatement;
- (b) The date computed by adding the period allowed in the citation for abatement to the final order date; or
 - (c) The date established by a formal settlement agreement.
- **Sec. 4.** "Affected employees" means those employees who are exposed to the hazard(s) identified as violation(s) in a citation.

Sec. 5. "Final order date" means:

- 1. For an uncontested citation item, the fifteenth working day after the employer's receipt of the citation;
- 2. For a contested citation item:
 - (a) The date on which the Board issued a final order concerning the contested citation; or
- (b) The date on which a district court issues a decision affirming the violation in a case in which a final order of the Board has been stayed.
- **Sec. 6.** "Movable equipment" means a hand-held or non-hand-held machine or device, powered or unpowered, that is used to do work and is moved within or between worksites.

Sec. 7. Abatement certification.

1. Within 10 calendar days after the abatement date, the employer shall certify to the enforcement section that each cited violation has been abated, except as provided in subsection 2. below.

- 2. The employer is not required to certify abatement if the inspector, during the on-site portion of the inspection:
- (a) Observes, within 24 hours after a violation is identified, that abatement has occurred; and
 - (b) Notes in the citation that abatement has occurred.
- 3. The employer's certification that abatement is complete must include, for each cited violation, in addition to the information required by section 8, the date and method of abatement and a statement that affected employees and their representatives have been informed of the abatement.
- 4. Section 15 contains a sample Abatement Certification Letter.

Sec. 8. Abatement documentation.

- 1. The employer shall submit to the enforcement section, along with the information on abatement certification required by section 7, documents demonstrating that abatement is complete for each willful or repeat violation and for any serious violation for which the enforcement section indicates in the citation that such abatement documentation is required.
- 2. Documents demonstrating that abatement is complete may include, but are not limited to, evidence of the purchase or repair of equipment, photographic or video evidence of abatement, or other written records.

Sec. 9. Abatement plans.

- 1. The enforcement section may require an employer to submit an abatement plan for each cited violation (except an other-than-serious violation) when the time permitted for abatement is more than 90 calendar days. If an abatement plan is required, the citation must so indicate.
- 2. The employer shall submit an abatement plan for each cited violation within 25 calendar days from the final order date when the citation indicates that such a plan is required. The abatement plan must identify the violation and the steps to be taken to achieve abatement, including a schedule for completing abatement and, where necessary, how employees will be protected from exposure to the violative condition in the interim until abatement is complete.
- 3. Section 16 contains a Sample Abatement Plan Form.

Sec. 10. Progress reports.

- 1. An employer who is required to submit an abatement plan may also be required to submit periodic progress reports for each cited violation. The citation must indicate:
- (a) That periodic progress reports are required and the citation items for which they are required;
- (b) The date on which an initial progress report must be submitted, which may be no sooner than 30 calendar days after submission of an abatement plan;
 - (c) Whether additional progress reports are required; and
 - (d) The date(s) on which additional progress reports must be submitted.
- 2. For each violation, the progress report must identify, in a single sentence if possible, the action taken to achieve abatement and the date the action was taken.
- 3. Section 16 contains a Sample Progress Report Form.

Sec. 11. Employee notification.

- 1. The employer shall inform affected employees and their representative(s) about abatement activities covered by this section by posting a copy of each document submitted to the enforcement section or a summary of the document near the place where the violation occurred.
- 2. Where such posting does not effectively inform employees and their representatives about abatement activities (for example, for employers who have mobile work operations), the employer shall:
- (a) Post each document or a summary of the document in a location where it will be readily observable by affected employees and their representatives; or
- (b) Take other steps to communicate fully to affected employees and their representatives about abatement activities.
- 3. The employer shall inform employees and their representatives of their right to examine and copy all abatement documents submitted to the enforcement section.
- (a) An employee or an employee representative shall submit a request to examine and copy abatement documents within 3 working days of receiving notice that the documents have been submitted.
- (b) The employer shall comply with an employee's or employee representative's request to examine and copy abatement documents within 5 working days of receiving the request.
- 4. The employer shall ensure that notice to employees and employee representatives is provided at the same time or before the information is provided to the enforcement section and that abatement documents are:
 - (a) Not altered, defaced, or covered by other material; and
 - (b) Remain posted for three working days after submission to the enforcement section.

Sec. 12. Transmitting abatement documents.

- 1. The employer shall include, in each submission required by this section, the following information:
 - (a) The employer's name and address;
 - (b) The inspection number to which the submission relates;
 - (c) The citation and item numbers to which the submission relates;
 - (d) A statement that the information submitted is accurate; and
 - (e) The signature of the employer or the employer's authorized representative.
- 2. The date of postmark is the date of submission for mailed documents. For documents transmitted by other means, the date the enforcement section receives the document is the date of submission.

Sec. 13. Movable equipment.

- 1. For serious, repeat, and willful violations involving movable equipment, the employer shall attach a warning tag or a copy of the citation to the operating controls or to the cited component of equipment that is moved within the worksite or between worksites.
- 2. If movable equipment is determined to present a serious hazard to employees, the employer shall remove the equipment from use until the equipment is repaired.
- 3. Attaching a copy of the citation to the equipment is deemed by the division to meet the tagging requirement of section 13 as well as the posting requirement of NAC 618.6467.

- 4. The employer shall use a warning tag that properly warns employees about the nature of the violation involving the equipment and identifies the location of the citation issued.
- 5. Section 17 contains a sample warning tag that employers may use to meet this requirement.
- 6. If the violation has not already been abated, a warning tag or copy of the citation must be attached to the equipment:
 - (a) For hand-held equipment, immediately after the employer receives the citation; or
- (b) For non-hand-held equipment, prior to moving the equipment within or between worksites.
- 7. For the construction industry, a tag that is designed and used in accordance with 29 CFR 1926.20(b)(3) and 29 CFR 1926.200(h) is deemed by division to meet the requirements of this section when the information required by section 13 is included on the tag.
- 8. The employer shall assure that the tag or copy of the citation attached to movable equipment is not altered, defaced, or covered by other material.
- 9. The employer shall assure that the tag or copy of the citation attached to movable equipment remains attached until:
- (a) The violation has been abated and all abatement verification documents required by this regulation have been submitted to the enforcement section;
- (b) The cited equipment has been permanently removed from service or is no longer within the employer's control; or
 - (c) The Board issues a final order vacating the citation.

Sec. 15. Sample Abatement Certification Letter (Non-mandatory)

(Name), District Manager
Occupational Safety and Health Enforcement Section
Address of the District Office (on the citation)

[Company's Name] [Company's Address]

The hazard referenced in Inspection Number [insert 9-digit #] for violation identified a	as:
Citation [insert #] and item [insert #] was corrected on [insert date] by:	
Citation [insert #] and item [insert #] was corrected on [insert date] by:	
Citation [insert #] and item [insert #] was corrected on [insert day] by:	

Note: Continue this for the number of citation that were abated.

I attest that the information contained in the document is accurate.

<u>Signature</u>		
Typed or Printed Name		
Sec. 16. Sample Abatement Plan or Pr	rogress Report (Non-mandato	ory)
(Name), District Manager Occupational Safety and Health Enforce Address of the District Office (on the c		
[Company's Name] [Company's Address]		
Check one:		
Abatement Plan []		
Progress Report []		
Inspection Number		
Page of		
Citation Number(s)*		
Item Number(s)*		
<u>Action</u>	Proposed Completion Date(for abatement plans only)	Completion Date (for progress reports only)
1.		
<u>2.</u>		
Note: Continue this for the number	of action taken.	
Date for final abatement:		
<u>Signature</u>		
Typed or Printed Name		

Name of primary point of contact for question	Loptional
	-
Telephone number:	
receptione number.	

^{*} Abatement plans or progress reports for more than one citation item may be combined in a single abatement plan or progress report if the abatement actions, proposed completion dates and actual completion dates (for progress reports only) are the same for each of the citation items.

Sec. 17.-- Sample Warning Tag (Non-mandatory)

NAC 618.6464 is hereby amended to read as follows:

- 1. An inspector may issue appropriate citations and notices of proposed penalties with respect to an imminent danger even though, after being informed of the danger, the employer immediately eliminates the imminence of the danger and initiates steps to abate it.
- 2. If the inspector is not satisfied that the employer will eliminate the danger, the inspector shall:
- (a) Inform the employer and the affected employees of the danger and that he will recommend that the administrator of the division of industrial relations of the department of business and industry [seek injunctive relief pursuant to NRS 618.545; and] issue an emergency order pursuant to NRS 618.545; and
- (b) [Post a notice on Form DOSH-8, Notice of Alleged Imminent Danger, at the site of the danger.] Upon approval by the administrator, the inspector shall deliver a Form OSHES-8, Emergency Restraining Order to Remove Alleged Imminent Danger, to the employer or other person in charge of the place of employment where the danger exists.

ABATEMENT OF ASBESTOS

Chapter 618 of NAC is hereby amended by adding thereto the provisions set forth as sections 1 to 7, inclusive, of this regulation.

- **Section 1.** "Building Owner" means the legal entity, including a lessee, which exercises control over management and record keeping functions relating to a building or structure.
- Sec. 2. "Presumed asbestos containing material" means thermal system insulation and surfacing material found on structures or in building constructed no later than 1980 that may be material containing asbestos.
- **Sec. 3.** "Surfacing material" means material that is sprayed, troweled-on or otherwise applied to surfaces.
- **Sec. 4.** "Thermal system insulation" means material applied to pipes, fittings, boilers, breeching, tanks, ducts or structural components to prevent heat loss or gain.
- Sec. 5. The division hereby adopts by reference Appendix C to Subpart E of 40 CFR Part 763 of title 40 of the Code of Federal regulation, published in the Federal Register, February 3, 1994, as "Part III, Environmental Protection Agency, 40 C.F.R. 763, Asbestos Model Accreditation Plan; Interim Final Rule." The publication may be obtained from the Office of Pollution Prevention and Toxics, Environmental Protection Agency, 401 M Street, SW., Washington, D.C. 20460, free of charge.
- Sec. 6. 1. A person who inspects a building or structure for material containing asbestos or who collects samples of presumed asbestos containing material must be a licensed inspector.

- 2. When presumed asbestos containing material is being tested in order to rebut the designation of installed material as presumed asbestos containing material, the licensed inspector shall comply with the protocol set forth in 29 C.F.R. 1926.1101 or 29 C.F.R. 1910.1001.
- 3. This section does not apply to inspections performed by employees or agents of Federal, State or Local Government solely for the purpose of determining compliance with applicable statutes, codes or regulations.
- 4. This section does not apply to inspections performed solely for the purpose of determining the condition of previously identified material containing asbestos or presumed asbestos containing material.
- **Sec. 7.** A person who develops a plan for the abatement of asbestos must be a licensed project designer.

NAC 618.879 is hereby amended to read as follows:

"Inspector" means a licensed consultant who is specially accredited to [identify and assess the condition of material containing asbestos] determine the presence, condition and location of building materials suspected of being material containing asbestos and to collect samples of the building materials for analysis of asbestos content.

NAC 618.890 is hereby amended to read as follows:

"Occupant" means any person who is physically located under or within a structure or building. This does not include a person involved in an activity for the control of asbestos.

NAC 618.891 is hereby amended to read as follows:

"Plan for the abatement of asbestos" means those <u>written</u> specifications for the abatement of asbestos which are set forth in [Appendix F of 29 C.F.R. §1926.58] 29 C.F.R. §1926.1101 or 29 C.F.R. §1910.1001.

NAC 618.893 is hereby amended to read as follows:

"Project for spot repairs" means any activity for the abatement of asbestos which encompasses not more than [3] 25 linear feet of material containing asbestos located on pipes or not more than [3] 10 square feet of other material containing asbestos [located on any other surface]. The term does not include large projects which are divided into smaller segments.

NAC 618.894 in hereby amended to read as follows:

"Project for the abatement of asbestos" means any activity for the abatement of asbestos involving more than [3] 25 linear feet of material containing asbestos located on pipes or more than [3] 10 square feet of other material containing asbestos [located on any other surface]. The term include activities for the abatement of asbestos but does not include emergency asbestos projects or projects for spot repairs if the number of procedures can be predicted within 1 year and the material containing asbestos to be disturbed exceeds these limits.

NAC 618.907 is hereby amended to read as follows:

1. An occupant of a building may not be exposed to an 8-hour time-weighted average of airborne asbestos fibers in excess of 0.01 asbestos fibers per cubic centimeter of air. The amount of fibers in the air must be determined using the [transmission electron microscopy]

- field sampling protocol and analytical method set forth in Appendix A of Subpart E of Part 763 of Title 40 of the Code of Federal Regulations. [An air sample volume of at least 1,200 liters must be sampled at a maximum flow rate of 10 liters per minute.]
- 2. If [an] a building owner [or occupant of a building or structure] discovers that the quantity of airborne asbestos therein exceeds the level set forth in subsection 1, he shall post in a conspicuous place within the building or structure, including all entrances, a written notice to all occupants that the levels of airborne asbestos exceed the level set forth in subsection 1. The notice must be at least 8 inches by 11 inches in size and must consist of not less than 10 characters per inch in size. The <u>building</u> owner [or occupant] shall immediately notify the enforcement section of the excess levels of asbestos.
- 3. [An employer shall not allow an employee to be exposed to any asbestos hazard.] <u>Building</u> owners shall, as a minimum, comply with the communication of hazard requirements set forth in paragraph (k) of 29 C.F.R. 1926.1101 and paragraph (j) of 29 C.F.R. 1910.1001.

NAC 618.910 is hereby amended to read as follows:

- 1. A person who wishes to apply for an initial license as a contractor, supervisor, abatement worker or consultant must submit a signed, completed application with all necessary documentation to the enforcement section on a form provided by the enforcement section.
- 2. An application for initial licensing must be delivered to the [chief at 1370 South Curry Street, Carson City, Nevada 89710.] enforcement section at 400 West King Street, Suite 200, Carson City, Nevada 89703.
- 3. The enforcement section may, within 30 days after the receipt of an application, require further information to determine whether the application should be approved or denied.
- 4. If the enforcement section requests further information from an applicant and does not receive that information within 60 days after the date of the request, the application will be considered abandoned and the request for an initial license will be denied.
- 5. An applicant must include his mailing address on his application and immediately notify the enforcement section of any change in that address. Any notification of a change of address received by the enforcement section acts as an amendment to the original application. The address stated on the original application or as amended must be the proper mailing address for all filings, postings and communications made by mail between the enforcement section and the applicant.
- [6. An application must be accompanied by proof that the applicant maintains a valid policy of industrial insurance with the state.
- 7. An application for initial licensing is not complete until the fee for the license is paid to the division and proof of the license is paid to the division and proof of industrial insurance is provided.]
- 6. A license issued by the enforcement section is valid until the expiration date of the training certificate, but not to exceed one year.

NAC 618.913 is hereby amended to read as follows

1. A licensee must submit an application for the renewal of his license [on or before January 1 of each year] prior to the expiration date of the current license.

- 2. An application for the renewal of a license must be submitted on a form provided by the enforcement section and delivered to the enforcement section at [1370 South Curry Street, Carson City, Nevada, 89710] 400 West King Street, Suite 200, Carson City, Nevada 89703.
- 3. An application must be accompanied by:
- (a) Evidence that the applicant has completed [an annual] <u>a refresher</u> training course within the past 12 months approved by the EPA for his discipline; and
 - (b) The applicable fee for renewal.
- 4. The renewal of a license is not effective until final action on the application is taken by the enforcement section.
- 5. [If an application for the renewal of a license is completed on the proper form and filed with the enforcement section before December 1, accompanied by the required fee, the license does not expire until final action on the application have been taken by the enforcement section.
- 6. If an application for the renewal of a license is not received by the enforcement section on or before December 1, the license of the applicant expires on January 1 of the succeeding year.
- 7. If an application for the renewal of a license is not received by the enforcement section on or before January 1, the license expires and the licensee must submit an application and qualify for an initial license.
- 6.] An application for the renewal of a license must include the applicant's mailing address. The applicant shall immediately notify the enforcement section of any change in that address. Any notification of a change of address received by the enforcement section acts as an immediate amendment to the original application. The address stated on the original application or amended application must be the proper mailing address for all filings, postings and communications made by the mail between the enforcement section and the licensee.
- [9. An application for renewal must be accompanied by proof that the applicant maintains a valid policy of industrial insurance with the state.
- 10. An application for the renewal of a license is not complete until the fee for renewal is paid to the division and proof of industrial insurance is provided.]
- 6. Prior to renewal of a license, contractors and consultants shall have abated all violated conditions for which they were cited and to have paid off that have become a final order of the Occupational Safety and Health Review Board.

NAC 618.914 is hereby amended to read as follows:

The renewal fee for:

- 1. A contractor is \$200.
- 2. A supervisor is \$50.
- 3. An abatement worker is \$25.
- 4. A consultant is \$100.
- 5. If the training certificate expires within 6 months of the date the license was issued, the first renewal fee will be one-half of the normal renewal fee. For this special renewal provision to be applicable, the refresher training must be taken and the application for renewal must be received before the expiration of the applicant's initial license.
- 6. All licensing fees are refundable if the license is denied.

NAC 618.916 is hereby amended to read as follows:

To obtain a license to [act as] be a contractor, an applicant must:

- 1. [Provide evidence that at least 2 years of experience in projects for the abatement of asbestos;
- 2.] Provide proof that he maintains a valid policy of [industrial] workers' compensation insurance as required [pursuant to NAC 618.947] by law;
- [3.] $\underline{2}$. Provide evidence of the successful completion of an initial training course approved by the EPA for contractors [which consist of at least 4 training days];
- [4. If the training course required by subsection 3 is completed more than 10 months before the date of the application, provide evidence of participation in, during the 12 months immediately preceding the date of the application, a refresher training course approved by the EPA for contractors]
- 3. If the initial training course certificate required by subsection 2 has expired, provide evidence of participation in a refresher training course approved by the EPA for contractors;
- [5.] 4. Submit to the enforcement section a written description of the protective gear and clothing that will be issued to all potentially exposed employees;
- [6.] 5. Submit to the enforcement section a written medical monitoring program for his employees;
- [7.] <u>6.</u> Submit to the enforcement section a written program for monitoring air for projects for the abatement of asbestos;
- [8. Pay, at the time of application, a non-refundable application fee of \$50;] and
- [9.] 7. Pay, at the time of application, a [refundable license] licensing fee of \$200. [This fee will be prorated for the initial licensing year.]

NAC 618.917 is hereby amended to read as follows:

- [1. A training course for contractors must adequately address the following topics:
- (a) The physical characteristics of asbestos and materials containing asbestos, including:

.

2. A contractor must, as part of the initial training course approved by the EPA, take and pass an examination consisting of 100 multiple choice questions. A passing score is 70 percent.]

Courses which provide initial training, refresher training and examinations for contractors must conform with the requirements of Appendix C to Subpart E of 40 CFR Part 763 of title 40 of the Code of Federal Regulation.

NAC 618.918 is hereby amended to read as follows:

To maintain his license, a contractor shall:

- 1. Ensure that proper notification of any proposed project for the abatement of asbestos is given in writing to the enforcement section;
- 2. Ensure that records of all projects for the abatement of asbestos he performs are maintained and retained for at least 30 years pursuant to 29C.F.R. §1926.33;
- 3. Ensure that a supervisor who is properly trained and licensed pursuant to NAC 618.850 to 618.986, inclusive, remains present at the site when any asbestos activity is being carried out as part of a project for the abatement of asbestos;
- 4. [Submit evidence] Ensure that all asbestos abatement workers and supervisors in his employ are properly training and licensed;

- 5. Establish and carry out a program for respiratory protection and submit a written copy of the program to the enforcement section;
- 6. Provide each of his employees who engages in activities for the abatement of asbestos with the necessary protective gear and clothing;
- 7. Provide or make available to all employees who engage in activities for the abatement of asbestos, a written medical monitoring program;
- 8. Implement a written program for monitoring air for projects for the abatement of asbestos to protect employees who may be exposed to airborne asbestos fibers;
- 9. Ensure that all activities for the abatement of asbestos are carried out pursuant to the requirements of the Construction Industry Standard [for Asbestos, 29 C.F.R. §1926.58];
- 10. Ensure that all asbestos activities performed are carried out pursuant to the provisions of NAC 618.850 to 618.986, inclusive; and
- 11. Provide employees of the enforcement section with the use of a supplied air system to use during inspections of the work area if a supplied air system is being used for activities for the abatement of asbestos at that location[; and
- 12. Provide a list of asbestos abatement equipment which is available for use at his projects for the abatement of asbestos].

NAC 618.920 is hereby amended to read as follows:

To be a licensed supervisor, an applicant must:

- 1. Be at least 18 years of age.
- 2. Provide evidence of at least 4 months of experience working in projects for the abatement of asbestos.
- 3. Provide evidence of the successful completion of a an initial training course approved by the EPA for supervisors [which consists of at least 4 training days].
- 4. [If the initial training course required by subsection 3 is completed more than 10 months before the date of the application, provide evidence of participation in, during the 12 months immediately preceding the date of the application, a refresher training course approved by the EPA for supervisors.] If the initial training course certificate required by subsection 3 has expired, provide evidence of participation in a refresher training course approved by the EPA for supervisor;
- 5. Pay a licensing fee of \$50.

NAC 618.921 is hereby amended to read as follows:

- [1. An initial training course for supervisors must adequately address the following topics:
- (a) The physical characteristics of asbestos and materials containing asbestos, including:
- (1) The identification of asbestos.
-
- (n) Contract specifications.
- (o) A review of the important elements of the training course.
- 2. A supervisor must, as part of the initial training course approved by the EPA, take and pass an examination consisting of 100 multiple choice questions. A passing score is 70 percent.]

Courses which provide initial training, refresher training and examinations for supervisors must conform with the requirements of Appendix C to Subpart E of 40 CFR Part 763 of title 40 of the Code of Federal Regulation.

NAC 618.924 is hereby amended to read as follows:

To be licensed as an abatement worker, and applicant must:

- 1. Be at least 18 years of age;
- 2. Provide evidence of the successful completion of an initial training course approved by the EPA for asbestos abatement workers [which consists of at least 3 training days];
- 3. [If the initial training course required by subsection 2 is completed more than 10 months before the date of the application, provide evidence of participation in, during the 12 months immediately preceding the date of the application has expired, a refresher training course approved by the EPA section for workers] If the initial training course certificate required by subsection 2 has expired, provide evidence of participation in a refresher training course approved by the EPA for workers; and
- 4. Pay a licensing fee of \$25.

NAC 618.925 is hereby amended to read as follows:

- [1. An initial training course for supervisors must adequately address the following topics:
- (a) The physical characteristics of asbestos and materials containing asbestos, including:
- (1) The identification of asbestos.

. . . .

enforcement section to administer to him an oral examination. All oral examinations will be administered at the enforcement section's office in Carson City or Las Vegas. A worker must pass the oral examination with a minimum grade of 70 percent.]

Courses which provide initial training, refresher training and examinations for workers must conform with the requirements of Appendix C to Subpart E of 40 CFR Part 763 of title 40 of the Code of Federal Regulation.

NAC 618.931 is hereby amended to read as follows:

To qualify for accreditation as an inspector, a licensed consultant must:

- 1. [Provide evidence of:
- (a) 1 year of experience as an inspector; or
- (b) 1 year of experience as an inspector trainee, pursuant to the provisions of section 101 of this regulation;
- 2.] Provide evidence of the successful completion of an initial training course approved by the EPA for inspectors [which consists of at least 3 training days]; and
- [3. If the initial training course required by subsection 2 is completed more than 10 months before the date of the application, provide evidence of participation in, during the 12 months immediately preceding the date of the application, a refresher training course approved by the EPA or the enforcement section for inspectors.]
- 2. If the initial training course certificate required by subsection 1 has expired, provide evidence of participation in a refresher training course approved by the EPA for inspectors.

NAC 618.932 is hereby amended to read as follows:

- [1. An initial training course for inspectors must adequately address the following topics:
- (a) Background information on asbestos, including:
- (1) The identification of asbestos.

. . . .

- (3) Practice in physical assessment at the inspection site.
- (4) A discussion in the classroom of the field trip.
- (n) A review of the important elements of the training course.
- 2. A consultant accredited as an inspector must, as part of the initial training course approved by the EPA, take and pass an examination consisting of 50 multiple choice questions. A passing score is 70 percent.]

Courses which provide initial training, refresher training and examinations for inspectors must conform with the requirements of Appendix C to Subpart E of 40 CFR Part 763 of title 40 of the Code of Federal Regulation.

NAC 618.933 is hereby amended to read as follows:

A licensed consultant who is accredited as an inspector may:

- 1. Inspect buildings and structures for the presence of materials containing asbestos.
- 2. Collect bulk samples from materials suspected of containing asbestos.
- 3. Evaluate the condition of materials containing asbestos.
- 4. Determine whether materials suspected of containing asbestos are friable or nonfriable.
- 5. Perform inspections for building owners to rebut the designation of installed material as presumed asbestos containing material.

NAC 618.935 is hereby amended to read as follows:

To qualify for accreditation as a management planner, a licensed consultant must:

- 1. [Provide evidence:
- (a) Of at least 1 year of experience as a management planner.
- (b) Of at least 2 years of experience as a licensed consultant accredited as an inspector or;
- (c) That he is a registered professional engineer, licensed architect or certified industrial hygienist with at least 6 months experience in activities for the abatement of asbestos;
- 2.] Provide evidence of the successful completion of an initial training course approved by the EPA for inspectors and management planners [which consists of at least 5 training days]; and [3. If the initial training course certificate required by subsection 2 has expired, provide
- evidence of participation in a refresher training course approved by the EPA for inspectors and management planners.]
- 2. If the initial training course certificate required by subsection 1 has expired, provide evidence of participation in a refresher training course approved by the EPA for inspectors and management planners.

NAC 618.936 is hereby amended to read as follows:

- [1. An initial training course for management planners must adequately address the following topics:
- (a) An overview of the course, including:

- (1) The role of the management planner.
- (2) Operations and maintenance programs.

. . . .

2. A consultant accredited as a management planner must, as part of the initial training course approved by the EPA, take and pass an examination consisting of 100 multiple choice questions. A passing score is 70 percent.]

Courses which provide initial training, refresher training and examinations for management planners must conform with the requirements of Appendix C to Subpart E of 40 CFR Part 763 of title 40 of the Code of Federal Regulation.

NAC 618.938 is hereby amended to read as follows:

To qualify for accreditation as a project designer, a licensed consultant must:

- 1. Provide evidence:
- (a) Of at least 1 years of experience [as a project designer;
- (b) Of at least 2 years of experience as a monitor or management planner or combination thereof] as an asbestos consultant or asbestos supervisor [; or
- (c) That he is a registered professional engineer, licensed architect or certified industrial hygienist [with at least 6 months of experience in activities for the abatement of asbestos];
- 2. Provide evidence of the successful completion of an initial training course approved by the EPA for project designers [which consists of at last 3 training days]; and
- 3. [If the initial training course required by subsection 2 is completed more than 10 months before the date of the application, provide evidence of participation in, during the 12 months immediately preceding the date of the application, a refresher training course approved by the EPA for project designer.] If the initial training course certificate required by subsection 2 has expired, provide evidence of participation in a refresher training course approved by the EPA for project designer.

NAC 618.939 is hereby amended to read as follows:

- [1. A training course for project designers must adequately address the following topics:
- (a) Background information on asbestos, including:
- (1) The identification of asbestos.

. . . .

- (s) A review of the important elements of the training course.
- 2. A project designer must, as part of the initial training course approved by the EPA, take and pass an examination consisting of 100 multiple choice questions. A passing score is 70 percent.]

Courses which provide initial training, refresher training and examinations for project designers must conform with the requirements of Appendix C to Subpart E of 40 CFR Part 763 of title 40 of the Code of Federal Regulation.

NAC 618.941 is amended to read as follows:

To qualify for accreditation as a monitor, a licensed consultant must:

1. [Provide evidence:

- (a) Of at least 1 year of experience as a monitor;
- (b) Of at least 1 year of experience as a monitor trainee pursuant to section 111 of this regulation; or
- (c) Of at least 2 years of experience in engineering or industrial hygiene and at least 6 months of experience performing activities for the abatement of asbestos;
- 2.] Provide evidence of the successful completion of an initial training course approved by the EPA for contractors and supervisors; and [which consists of at least 4 training days;
- 3. If the initial training course required by subsection 2 is completed more than 10 months before the date of the application, provide evidence of participation in, during the 12 months immediately preceding the date of the application, a refresher training course approved by the EPA for contractors and supervisors]
- 2. If the initial training course certificate required by subsection 2 has expired, provide evidence of participation in a refresher training course approved by the EPA for supervisor.

 [4. Provide evidence of training or experience in performing required air monitoring including a list of air monitoring equipment to be used.]

NAC 618.942 is hereby amended to read as follows:

- [1. An initial training course for monitors must adequately address the following topics:
- (a) The physical characteristics of asbestos and materials containing asbestos, including:
- (1) The identification of asbestos.

. . . .

- (o) A review of the important elements of the training course.
- 2. A monitor must, as part of the initial training course approved by the EPA, take and pass an examination consisting of 100 multiple choice questions. A passing score is 70 percent.]

 Courses which provide initial training, refresher training and examinations for supervisors

 must conform with the requirements of Appendix C to Subpart E of 40 CFR Part 763 of title

 40 of the Code of Federal Regulation.

NAC 618.951 is amended to read as follows:

Activities for the abatement of asbestos involving vinyl asbestos tile, sheet floor covering, exterior asbestos roofing material, exterior asbestos siding, dry wall joint compound and texturizing materials and other nonfriable materials containing asbestos, are exempt from the requirements of NAC 618.850 to 618.986. To remain eligible for this exemption, practices must be maintained to insure that the materials containing asbestos are:

- 1. Not sanded, power sawed or drilled;
- 2. Removed in the largest sections practicable and carefully lowered to the ground;
- 3. Handled carefully to minimize breakage throughout removal, handling and transportation to an authorized disposal site; [and]
- 4. Wetted before removal and during subsequent handling, to the extent practicable; and
- 5. All abatement projects involving exempted material containing asbestos must be performed in conformity with the requirements set forth in 29 C.F.R. 1926.1101.

NAC 618.952 is hereby amended to read as follows:

- 1. A person may request the enforcement section to determine whether an activity is an activity for the abatement of asbestos and subject to the requirements of NAC 618.850 to 618.986, by requesting the enforcement section to issue a declaratory order.
- 2. Any request for a declaratory order must be submitted in the form of a written petition and submitted to the chief at his office in Carson City. The petition must describe:
 - (a) The material containing asbestos;
 - (b) The proposed activity;
 - (c) The site at which the activity will be conducted;
 - (d) The nature of the work to be done; and
- (e) The results of any tests conducted on samples of material to be disturbed or encapsulated.
- 3. The enforcement section will issue a declaratory order in writing not later than [60] $\underline{15}$ days after receiving a written petition. The order must be signed by the chief.
- 4. A declaratory order may be appealed to the [director of the department] administrator of the division of industrial relations within [30] 15 days after it is issued. An order not appealed within that time is final.

NAC 618.955 is amended to read as follows:

A contractor who engages in an emergency asbestos project shall:

- 1. Notify the enforcement section of the project by telephone at (702)- [885] <u>687</u>-5240 within 24 hours after the commencement of the project; and
- 2. Give written notification of the project to the enforcement section, postmarked not later than 48 hours after the commencement of the project.

NAC 618.956 is amended to read as follows:

- 1. Before an area of a structure or a building where a project for the abatement of asbestos was performed may by reoccupied, the contractor shall obtain final clearance from a monitor. The monitor shall not be an employee of the contractor, or the owner of the building or structure, unless a variance is granted by the enforcement section.
- 2. After all the material containing asbestos has been washed and vacuumed using a vacuum with high efficiency particulate air filtration, the work area must be:
 - (a) Inspected by the monitor for visible residue;
 - (b) Recleaned where necessary; and
 - (c) Allowed to dry completely.
- 3. Before issuing a final clearance, the monitor shall conduct final clearance tests by collecting where feasible:
 - (a) Air samples using aggressive sampling techniques; and
- (b) Five air monitoring samples from each containment area. The minimum air sample volume must be 1,200 liters sampled at a maximum flow rate of 10 liters per minute.
- 4. The average concentration of airborne asbestos fiber in all final clearance tests must be equal to or below 0.01 fibers per cubic centimeter of air. The samples must be analyzed using the method set forth in [Appendix A of 29 C.F.R. & 1926.58]. Appendix B of 29 C.F.R. & 1926.1101 or Appendix A of Subpart E of Part 763 of Title 40 of the Code of Federal Regulations. These results are required on all samples taken before the containment barrier and

- exhaust air filtration system may be removed. If such results are not obtained, the areas must be rewashed and allowed to dry and samples must be taken again.
- 5. The monitor shall determine whether the requirements set forth in this section for final clearance tests are feasible for the work area. If the monitor determines that they are not and uses an alternate method for monitoring the air, he shall describe the rationale for using that method in the final clearance documents.
- 6. After the monitor has made the determination that the requirements of this section have been satisfied and the area is safe from any asbestos hazard, he shall direct the contractor to apply a lock down agent to all surfaces where material containing asbestos was removed, unless a variance is granted by the enforcement section. After the agent is applied, the monitor shall prepare the final clearance documentation and the remaining equipment and containment barrier may be removed.
- 7. The monitor shall deliver the final clearance documentation to the owner of the building or structure, and a copy of all reports and documents, including the final clearance, to the contractor and the enforcement section.
- 8. When the monitor wants to rebut a phase contrast microscopy final clearance sample which is above 0.01 fibers per cubic centimeter of air, the final clearance sample can be re-analyzed by transmission electron microscopy.
- 9. The monitor is responsible to ensure that the area of a structure or building where a project of the abatement of asbestos was performed meets the final clearance requirements and is safe to be reoccupied.

NAC 618.958 is hereby amended to read as follows:

A project for spot repairs [must be performed using the work practices and engineering controls set forth in Appendix G of 29 C.F.R. 8 1926.58] must comply with the requirements set forth in 29 C.F.R. 1926.1101.

NAC 618.959 is hereby amended to read as follows:

[1. Except as otherwise provided in this section, a licensee involved in the removal of asbestos from the interior of a building shall as a minimum comply with those work practices and out. The equipment must be wrapped in plastic before it is removed from the work area.

- 18. Any provision of this section which conflicts with a provision of Appendix F of 29 C.F.R. å 1926.58, supersedes the provision with which it conflicts.]
- 1. All projects for the abatement of asbestos must be performed by a licensed asbestos abatement contractor.
- 2. The asbestos abatement contractor shall only use licensed supervisors and workers on a project for the abatement of friable asbestos.
- 3. The asbestos abatement contractor shall comply with the requirements set forth in 29 C.F.R. 8 1926.1101.

NAC 618.960 is amended to read as follows:

- 1. Before a building or structure which contains friable asbestos material or presumed asbestos containing material which is friable may be demolished, the [asbestos] material must be removed pursuant to the requirements of NAC 618.959.
- 2. Before a building or structure, which was constructed no later that 1980, may be demolished, a licensed inspector shall visually inspect the building or structure to determine if all of the friable material containing asbestos has been removed.
- 3. The inspector shall provide a written document of his findings to the demolition contractor and the building owner.
- 4. Air monitoring for a final clearance pursuant to NAC 618.956 is not required [after] before the demolition of a structure unless the area is to be entered by unprotected personnel before demolition or reoccupied after partial demolition.

NAC 618.961 is hereby amended to read as follows:

- 1. Before the commencement of a renovation project that will disturb [friable structural fireproofing, acoustical material that has been sprayed or troweled on, or any other suspected materials containing asbestos, a sample of the material must be analyzed for asbestos content by an accredited laboratory unless the material is assumed to contain asbestos.] surfacing material or thermal system insulation found in a building constructed no later than 1980, the material shall be presumed asbestos containing material and the material shall be removed pursuant to the requirements of NAC 618.959 or the surfacing material or thermal system insulation must be rebutted as a material containing asbestos by a licensed inspector.
- 2. [If any substance is found to be or contain asbestos, or assumed to contain asbestos, the renovation project shall be deemed an activity for the abatement of asbestos and is subject to NAC 618.850 TO 618.986, inclusive. Any material which is assumed to contain asbestos must be treated as material containing asbestos.] The licensed inspector shall follow the criteria to rebut the designation of installed material as presumed asbestos containing material set forth in paragraph (k) (4) of 29 C.F.R. 1926.1101.

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NAC 618.858 is hereby repealed.
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NAC 818.859 is hereby repealed.

NAC 618.865 is hereby repealed.

NAC 618.871 is hereby repealed.

NAC 618.872 is hereby repealed.

NAC 618.873 is hereby repealed.

NAC 618.876 is hereby repealed.

NAC 618.877 is hereby repealed.

NAC 618.878 is hereby repealed.

NAC 618.880 is hereby repealed.

NAC 618.901 is hereby repealed.

NAC 618.905 is hereby repealed.

NAC 618.919 is hereby repealed.

NAC 618.934 is hereby repealed.

NAC 618.944 is hereby repealed.

NAC 618.947 is hereby repealed.

NAC 618.957 is hereby repealed. NAC 618.962 is hereby repealed. NAC 618.963 is hereby repealed.