

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

**LCB File No. R142-98**

September 30, 1998

EXPLANATION - Matter in *italics* is new; matter in brackets [ ] is material to be omitted.

AUTHORITY: §§2-12, NRS 618.295;§13, NRS 618.295 and 618.376; §§14-123, NRS 618.295; §§124-153, NRS 618.765; §§154-161, NRS 618.295; §§162-167, NRS 618.295; §§168 and 169, NRS 618.295 and 618.765.

**Section 1.** Chapter 618 of NAC is hereby amended by adding thereto the provisions set forth as sections 2 to 33, inclusive, of this regulation.

**Sec. 2.** *As used in this chapter, unless the context otherwise requires, the words and terms defined in sections 3 to 6, inclusive, of this regulation have the meanings ascribed to them in those sections.*

**Sec. 3.** *“Administrator” means the administrator of the division.*

**Sec. 4.** *“Chief” means the chief administrative officer of the enforcement section.*

**Sec. 5.** *“Division” means the division of industrial relations of the department of business and industry.*

**Sec. 6.** *“Enforcement section” means the occupational safety and health enforcement section of the division.*

**Sec. 7.** *“Contractor” has the meaning ascribed to it in NRS 624.020.*

**Sec. 8.** *“Heat exchanger” means a device for transferring energy in the form of heat from a warmer medium to a cooler medium. The term includes a radiator.*

**Sec. 9.** *“Inspection organization” means an established inspection department of an organization of owners or users of boilers or pressure vessels whose organization and inspection procedures conform with the rules of the national board and have been approved by the division.*

**Sec. 10.** *“Structure” means a wall, column or any equipment located in the area of a boiler or pressure vessel that is being installed.*

**Sec. 11.** *1. A copper watertube boiler or copper water heater that is used for domestic hot water or comfort heating must have a clearance of not less than 3 feet between each side or end of the boiler or water heater from which maintenance, operation of the controls, or repairs may be required, and any wall, column, equipment or other structure.*

*2. Each side or end of a copper watertube boiler or copper water heater that is used for domestic hot water or comfort heating must have a clearance of not less than 6 inches between each side or end of the boiler or water heater from which maintenance, operation of the controls, or repairs will not be required, and any wall, column, equipment or other structure.*

**Sec. 12.** *The capacity rating of:*

*1. A safety valve that is designed primarily to provide steam or vapor must be rated in pounds per hour.*

*2. A relief valve that is designed primarily to provide liquid must be rated in British thermal units per hour.*

*3. A safety relief valve that is designed primarily to provide:*

*(a) Steam or vapor must be rated in pounds per hour.*

*(b) Heated liquid must be rated in British thermal units per hour.*

*4. A cold water relief valve may be rated in gallons per hour.*

**Sec. 13.** *1. The contents of the document required by NRS 618.376 that sets forth the rights and responsibilities of employers and employees to promote safety in the workplace must conform with “Nevada Workplace Safety: Your Rights and Responsibilities,” SCATS Form IE, 0-302, published by the division. The division will publish “Nevada Workplace Safety: Your Rights and Responsibilities” in English, Spanish and any other language the division determines is appropriate.*

*2. The contents of the videotape required by NRS 618.376 that sets forth the rights and responsibilities of employers and employees to promote safety in the workplace must conform with “Safety in the Workplace,” produced by the division. The division will produce “Safety in the Workplace” in English, Spanish and any other language the division determines is appropriate.*

**Sec. 14.** *“Act” means the Nevada Occupational Safety and Health Act set forth in chapter 618 of NRS.*

**Sec. 15.** *“Establishment” means:*

*1. For a private employer, a single physical location where his business is conducted or where services or industrial operations are performed, including a factory, mill, store, hotel, restaurant, movie theater, farm, bank, sales office, warehouse or central administrative office. If distinctly separate activities are performed at a single physical location, for example, where*

*construction activities under contract are operated from the same physical location as a lumber yard, each activity will be treated as a separate establishment.*

*2. For a public employer:*

*(a) A single physical location where a specific governmental function is performed; or*

*(b) A location which is the lowest level where attendance or payroll records are kept for a group of employees who perform the same governmental function or who are in the same organizational unit, even if its activities are carried on at more than a single physical location.*

**Sec. 16.** *“First aid” means a single treatment and any follow-up visit for the purpose of observation of minor scratches, cuts, burns, splinters and other injuries which do not ordinarily require medical care. Such treatment and any follow-up visit for the purpose of observation are considered first aid, even if the treatment or visit is provided by a physician or registered professional personnel.*

**Sec. 17.** *“Lost workdays” means the 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 an occupational injury or illness.*

**Sec. 18.** *“Medical treatment” means treatment administered by a physician or by registered professional personnel pursuant to the orders of a physician. The term does not include first aid, even if the first aid is provided by a physician or registered professional personnel.*

**Sec. 19.** *“Recordable occupational injury or illness” means an occupational injury or illness that results in:*

1. *A fatality, regardless of the time between the injury and death, or the length of the illness;*
2. *A lost workday, other than for a fatality; or*
3. *A nonfatal injury or illness without a lost workday which results in a transfer to another job or the termination of employment, or requires medical treatment other than first aid, or involves the loss of consciousness or the restriction of work or motion.*

*The term also includes a diagnosed occupational illness that is reported to the employer, but is not classified as a fatality or does not result in a lost workday.*

**Sec. 20.** *“Abatement” means the action taken by an employer to:*

1. *Comply with a standard or regulation cited by the enforcement section in a citation; or*
2. *Eliminate a hazard identified by the enforcement section in a citation.*

**Sec. 21.** 1. *Except as otherwise provided in subsection 3, within 10 calendar days after the date of abatement, an employer shall certify to the enforcement section on a form provided by the division that each violation or hazard set forth in a citation has been abated.*

2. *If required by the citation issued by the enforcement section, an employer who provides a certification to the enforcement section pursuant to subsection 1 shall submit to the enforcement section documents that provide proof of abatement. The documents include evidence of the purchase or repair of equipment, photographs, videotape or other written records acceptable to the enforcement section.*

3. *An employer is not required to certify to the enforcement section that each violation or hazard set forth in a citation has been abated if an inspector, during the on-site portion of the inspection:*

*(a) Observes, within 24 hours after the violation or hazard has been identified, that abatement has occurred; and*

*(b) Sets forth in the citation that abatement has occurred.*

*4. As used in this section, “date of abatement” means:*

*(a) For an uncontested violation or hazard set forth in a citation, the date by which abatement is required pursuant to:*

*(1) The citation;*

*(2) The written approval from the enforcement section; or*

*(3) An informal settlement agreement between the employer and the enforcement section, whichever is latest.*

*(b) For a contested violation or hazard set forth in a citation for which the board has issued an order after notice and hearing, the date set forth in:*

*(1) The order by which abatement is required; or*

*(2) A formal settlement agreement between the employer and the enforcement section, whichever is later.*

*(c) For a contested violation or hazard set forth in a citation for which the board has issued an order after notice and hearing and for which the district court has affirmed the order of the board, the date by which abatement is required pursuant to the order of the district court.*

**Sec. 22.** *1. If the number of days given to an employer for abatement is more than 90 days, the employer may be required to submit to the enforcement section a plan for abatement for each violation or hazard set forth in a citation on a form provided by the division. If the employer is required to submit a plan for abatement pursuant to this subsection, the*

*enforcement section shall set forth in the citation the requirement and for which violation or hazard the requirement must be met.*

*2. The employer shall submit a plan for abatement to the enforcement section within 25 calendar days after:*

*(a) The citation is issued;*

*(b) The date on which the board has issued an order after notice and hearing that requires abatement;*

*(c) The date on which the district court has issued an order affirming the order of the board,*

*whichever is later.*

*3. An employer who is required to submit a plan for abatement pursuant to this section may be required to submit to the enforcement section on a form provided by the division a progress report relating to the abatement of each violation or hazard set forth in the citation. If the employer is required to submit a progress report pursuant to this subsection, the enforcement section shall set forth in the citation the requirement, the violation or hazard for which the requirement must be met and the date when the report must be submitted.*

**Sec. 23.** *1. On each document that an employer is required to submit to the enforcement section pursuant to sections 21 and 22 of this regulation, the employer shall set forth:*

*(a) His name and address;*

*(b) The inspection number of the citation related to the document;*

*(c) The number of the citation and the item number of the citation to which the document relates;*

*(d) A statement that the information contained in the document is accurate; and*

*(e) The signature of the employer or an authorized representative of the employer.*

*2. For each document an employer is required to submit to the enforcement section pursuant to sections 21 and 22 of this regulation, the date of submission shall be deemed to be:*

*(a) For a document deposited with the United States Postal Service, the date of the postmark.*

*(b) For a document submitted by any other means, the date the enforcement section receives the document.*

**Sec. 24.** *1. An employer shall post a copy or summary of each document submitted to the enforcement section pursuant to sections 21 and 22 of this regulation near the place where the violation occurred or the hazard is located.*

*2. If the enforcement section determines that posting the copy or summary of a document as required by subsection 1 does not inform adequately each affected employee or his authorized representative, the employer shall:*

*(a) Post the copy or summary for 3 working days in a conspicuous location where it will be readily observable by each affected employee or his authorized representative; or*

*(b) Take such other action as the enforcement section determines is necessary to inform adequately each affected employee or his authorized representative.*

*3. An employer shall notify each employee or his authorized representative of his right to examine and copy each document submitted to the enforcement section by the employer pursuant to sections 21 and 22 of this regulation.*

4. *An employer shall notify his employees or their authorized representatives that documents are being submitted to the enforcement section pursuant to sections 21 and 22 of this regulation before or at the same time that those documents are submitted to the enforcement section.*

5. *An employee or his authorized representative may submit a written request to examine or copy any document submitted by the employer to the enforcement section pursuant to sections 21 and 22 of this regulation within 3 working days after the employee or authorized representative receives notice that the document has been submitted. The employer shall allow the employee or his authorized representative to examine or copy such a document within 5 working days after the employer receives the written request to examine or copy the documents.*

6. *The employer shall ensure that each document posted pursuant to this section is not altered, defaced or covered by other material.*

7. *As used in this section, “affected employee” means an employee who was exposed to the hazard set forth in a citation issued by the enforcement section.*

**Sec. 25.** 1. *An employer shall attach a warning tag provided by the division or a copy of the citation on the operating controls or component of the movable equipment that was cited in a citation if the enforcement section determines that the violation set forth in the citation was willful, serious or a repeat violation.*

2. *For hand-held movable equipment, the warning tag or copy of the citation must be attached immediately after the employer receives the citation. For movable equipment that is not hand-held, the warning tag or copy of the citation must be attached before the equipment is moved.*

3. *An employer shall ensure that the warning tag or copy of the citation attached to movable equipment pursuant to this section:*

*(a) Is not altered, defaced or covered by any material; and*

*(b) Remains attached to the movable equipment until:*

*(1) The violation has been abated and the documents required pursuant to sections 21 and 22 of this regulation have been submitted to the enforcement section;*

*(2) The movable equipment has been permanently removed from service or is no longer under the control of the employer; or*

*(3) The board issues an order vacating the citation, whichever occurs earliest.*

4. *An employer shall remove movable equipment from use if the enforcement section determines that the movable equipment is a serious hazard to employees. The equipment must not be used until it is repaired and approved by the enforcement section.*

5. *As used in this section, “movable equipment” means a powered or unpowered machine or device that is used to perform work and may be moved between work sites.*

**Sec. 26.** *“Material presumed to contain asbestos” means thermal system insulation or surfacing material found in a building constructed in or before 1980 which may be asbestos.*

**Sec. 27.** *“Owner of a building or structure” means a person, including a lessee, who exercises control over a building or structure.*

**Sec. 28.** *“Surfacing material” means material that is sprayed or troweled on or otherwise applied to a surface.*

**Sec. 29.** *“Thermal system insulation” means material applied to pipes, fittings, boilers, breeching, tanks, ducts or structural components to prevent the loss or gain of heat.*

**Sec. 30.** *The division hereby adopts by reference Appendix C to Subpart E of 40 C.F.R. Part 763, June 29, 1995, edition, which may be obtained without charge from the Office of Pollution Prevention and Toxics, Environmental Protection Agency, 401 M Street S.W., Washington, D.C. 20460.*

**Sec. 31.** *1. Except as otherwise provided in subsection 2, a person who inspects a building or structure for material containing asbestos or who collects samples of material presumed to contain asbestos must be an inspector.*

*2. The provisions of this section do not apply to an inspection:*

*(a) Performed by an employee or agent of this state, the Federal Government or a local government that is performed to determine compliance with the applicable statutes, codes or regulations.*

*(b) Performed to determine the condition of material that has been identified as material containing asbestos or designated as material presumed to contain asbestos.*

**Sec. 32.** *A person who develops a plan for the abatement of asbestos must be a project designer.*

**Sec. 33.** *1. A project for the abatement of asbestos must be performed by a contractor.*

*2. A contractor shall:*

*(a) Use only supervisors and workers on a project for the abatement of asbestos; and*

*(b) Comply with the requirements set forth in 29 C.F.R. § 1926.1101.*

**Sec. 34.** *NAC 618.010 is hereby amended to read as follows:*

618.010 As used in NAC [618.013] 618.010 to 618.340, inclusive, *and sections 7 to 12, inclusive, of this regulation*, unless the context otherwise requires, the words and terms defined in NAC [618.013] 618.015 to 618.142, inclusive, *and sections 7 to 10, inclusive, of this regulation* have the meanings ascribed to them in those sections.

**Sec. 35.** NAC 618.019 is hereby amended to read as follows:

618.019 “Authorized inspection entity” means : [one of the following:]

1. The enforcement section ; [.]

2. An inspection entity [licensed] *that:*

*(a) Is licensed by this state* to write insurance for a boiler and pressure vessel [in jurisdictions which have] ; *and*

*(b) Employs boiler* 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.] ; *or*

3. *An inspection organization.*

**Sec. 36.** NAC 618.024 is hereby amended to read as follows:

618.024 “Boiler inspector” means an inspector of boilers *and pressure vessels* who *holds a commission and* is employed by:

1. The enforcement section; [or]

2. An authorized inspection entity [.] ; *or*

3. *An inspection organization.*

**Sec. 37.** NAC 618.032 is hereby amended to read as follows:

618.032 “Code” means [the] :

1. *The 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.] ;*

2. *A code relating to boiler and pressure vessels that has been approved by the national board and the division; or*

3. *The National Board Inspection Code.*

**Sec. 38.** NAC 618.034 is hereby amended to read as follows:

618.034 “Condemned boiler or pressure vessel” means a boiler or pressure vessel that has been inspected and declared unsafe, or has been disqualified by legal requirements, by [an] *a boiler* inspector who has applied a stamp or mark condemning the boiler or pressure vessel.

**Sec. 39.** NAC 618.052 is hereby amended to read as follows:

618.052 “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] *set forth* in the code.

**Sec. 40.** NAC 618.053 is hereby amended to read as follows:

618.053 “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 not less than* 200,000 British thermal units.

**Sec. 41.** NAC 618.063 is hereby amended to read as follows:

618.063 “Inspection for an operating permit” means an inspection [which] :

1. *That* is used by the enforcement section as the basis for issuing, withholding or revoking an operating permit [.] ; *and*

2. *For which an inspection report is required to be issued.*

**Sec. 42.** NAC 618.085 is hereby amended to read as follows:

618.085 “Nonstandard boiler or pressure vessel” means a boiler or pressure vessel that does not bear a stamp of this state, the national board, the American Society of Mechanical Engineers, the American Petroleum Institute in conjunction with the American Society of Mechanical Engineers 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.]**

**Sec. 43.** NAC 618.103 is hereby amended to read as follows:

618.103 “Portable boiler” means a boiler which is primarily intended for temporary **[location]** *use* and whose construction **[and use]** permits it to be readily moved from one location to another.

**Sec. 44.** NAC 618.106 is hereby amended to read as follows:

618.106 “Power boiler” means a boiler in which steam or other vapor is generated at a pressure of more than 15 PSIG. *The term includes a high-pressure, high-temperature water boiler.*

**Sec. 45.** NAC 618.119 is hereby amended to read as follows:

618.119 “Relief valve” means an automatic pressure-relieving device as described in section I, IV or VIII of the **[code.]** *ASME Boiler and Pressure Vessel Code, adopted by reference pursuant to NAC 618.148.*

Sec. 46. NAC 618.133 is hereby amended to read as follows:

618.133 “Standard boiler and pressure vessel” means a boiler or pressure vessel which bears the stamp of [this state, the] :

1. *The* American Society of Mechanical Engineers [, the] ;
2. *The* American Petroleum Institute in conjunction with the American Society of Mechanical Engineers [, the] ;
3. *The* national board ; or [any state or political subdivision of a state]
4. *A jurisdiction* which has adopted a standard of construction [equivalent to that required] approved by the *national board and the* division . [of industrial relations of the department of business and industry.]

Sec. 47. NAC 618.145 is hereby amended to read as follows:

618.145 The division [of industrial relations of the department of business and industry] hereby adopts by reference the [national board inspection code] “*National Board Inspection Code,*” 1998 edition, which may be obtained from The National Board of Boiler and Pressure Vessel Inspectors, 1055 Crupper Avenue, Columbus, Ohio 43229, for [a] *the* cost of [\$50.] \$70.

Sec. 48. NAC 618.148 is hereby amended to read as follows:

618.148 [1.] The division [of industrial relations of the department of business and industry] hereby adopts by reference [the] :

1. 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,] P.O. Box 2900, Fairfield, New Jersey 07007-2900, for the cost indicated:

	Cost
(a) Section I, Power Boilers.....	[\$160] \$210
(b) Section II, Parts A, B [and C,] C and D, Material Specifications .....	[800] 1,400
(c) Section IV, Heating Boilers.....	[170] 195
(d) Section V, Nondestructive [Examination] Testing .....	[170] 215
(e) Section VI, [Guidelines] Recommended Rules for the Care and Operation of Heating Boilers.....	[100] 125
(f) Section VII, [Rules] Recommended Guidelines for the Care of Power Boilers .....	[115] 145
(g) Section VIII, [Divisions I and II,] Pressure Vessels [(each)] , Divisions 1, 2 and 3 .....	[310] 1,065
(h) Section IX, Welding and Brazing Qualifications .....	[170] 215
(i) Section X, Fiberglass Reinforced Plastic Pressure Vessels .....	[145] 185

2. [The division of industrial relations hereby adopts by reference Controls] “Controls and Safety Devices for Automatically Fired [Boilers, CSD-1, 1992 edition,] Boilers,” CSD-1, 1998 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 a] *Society of Mechanical Engineers, P.O. Box 2900, Fairfield, New Jersey 07007-2900, for the* cost of [\$35.] \$52.

3. The [division of industrial relations hereby adopts by reference the Power Piping Code, B31.1, 1989] *“Power Piping Code, B31.1, 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, NY10017, for a] *P.O. Box 2900, Fairfield, New Jersey 07007-2900, for the* cost of [\$126.] \$164.

4. The [division of industrial relations hereby adopts by reference the National] *“National Fuel Gas [Code, Z223.1, 1988] Code,” Z223.1, 1996* edition, which is available from the American National Standards Institute, [1430 Broadway,] *11 West 42nd Street, New York, [NY 10018, for a] New York 10036, for the* cost of [\$20.] \$40.

5. *The “National Electrical Code,” 1996 edition, which is available from the American National Standards Institute, 11 West 42nd Street, New York, New York 10036, for the cost of \$65.*

6. *Volumes 1, 2 and 3 of the “Uniform Building Code,” 1997 edition, which are available from the International Conference of Building Officials, 5360 South Workman Mill Road, Whittier, California 90601, for the cost of \$61.25 per volume for volumes 1 and 2 and \$68.75 for volume 3.*

7. *The “Uniform Mechanical Code,” 1997 edition, which is available from the International Conference of Building Officials, 5360 South Workman Mill Road, Whittier, California 90601, for the cost of \$42.*

8. *The “Uniform Plumbing Code,” 1997 edition, which is available from the International Association of Plumbing and Mechanical Officials, 20001 Walnut Drive South, Walnut, California 91789-2825, for the cost of \$45.45.*

9. *Volumes 1 and 2 of the “Uniform Fire Code,” 1997 edition, which are available from the International Conference of Building Officials, 5360 South Workman Mill Road, Whittier, California 90601, for the cost of \$136.15.*

**Sec. 49.** NAC 618.150 is hereby amended to read as follows:

618.150 Except as otherwise provided in subsection 2 of NAC 618.219, a new boiler, pressure vessel or water heater must not be operated in this state unless it is designed, constructed, inspected, stamped and installed in accordance with the code and NAC [618.101] 618.010 to 618.340, inclusive [.] , *and sections 7 to 12, inclusive, of this regulation.*

**Sec. 50.** NAC 618.151 is hereby amended to read as follows:

618.151 The provisions of NAC 618.010 to 618.340, inclusive, *and sections 7 to 12, inclusive, of this regulation* do not apply to:

1. Boilers and pressure vessels under the control of the Federal Government.
2. [Pressure] *Unfired 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. [Pressure] *Unfired pressure* vessels having an inside diameter not exceeding 6 inches (152 millimeters).
5. [Pressure] *Unfired 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° F. (99° C.).
  - (c) A water capacity of 120 gallons (450 liters).
7. [Hot water supply boilers] *Fired storage water heaters* which are directly fired with oil, gas or electricity [when] *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° F. (99° C.).
  - (c) A water capacity of 120 gallons (450 liters).
8. [Pressure] *Unfired pressure* vessels that do not exceed 5 cubic feet in volume and 250 PSIG.
9. [A] *An unfired* 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] , *including*, a pump, compressor, turbine, generator, engine and hydraulic or pneumatic cylinder where the primary considerations of stresses in the design, or both, derived from the functional requirements of the device.

10. [Pressure] *Unfired pressure* vessels used for the storage of compressed air only [.] ,  
*including, an air tank.*

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, *and sections 7 to 12, inclusive, of this regulation* do apply to safety relief valves on a hot water heater constructed of continuous coils.

12. [Pressure] *Unfired pressure* vessels and piping containing liquid petroleum gas and liquid natural gas.

*13. A boiler or heater for a pool, if :*

*(a) The supply or return line has no stop valves installed; and*

*(b) It is impossible for the unit to build pressure more than 15 pounds per square inch.*

**Sec. 51.** NAC 618.152 is hereby amended to read as follows:

618.152 An owner or user may be exempted from full compliance with a regulation adopted by the division [of industrial relations of the department of business and industry] only by a written order [by] *of* the administrator authorizing [a] *the* variance.

**Sec. 52.** NAC 618.154 is hereby amended to read as follows:

618.154 1. [Examination for an inspectors' certificate of competency] *The examination for a commission* 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.] *conducted in accordance with the code.*

2. An applicant for examination must have *the* education and experience [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 a 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.] *required by the code.*

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] *provided* 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 applicant's 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 [will] *may* issue the applicant a certificate of competency . [and a]

5. A card for identification [.] *may be issued to the applicant after the applicant receives a commission.*

6. An applicant who fails to pass the examination may not take another written examination within 90 days after the examination.

**Sec. 53.** NAC 618.158 is hereby amended to read as follows:

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

**Sec. 54.** NAC 618.166 is hereby amended to read as follows:

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

(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 *boiler* inspector and his employer within 10 days after the [suspension] *revocation* is made.

3. A [person] *boiler inspector* whose certificate of competency has been [suspended] *revoked* may appeal the [suspension] *revocation* to the administrator.

**Sec. 55.** NAC 618.169 is hereby amended to read as follows:

618.169 [Inspectors] *A boiler inspector* may not engage in the sale of any service, article or device relating to boilers, pressure vessels or their appurtenances.

**Sec. 56.** NAC 618.170 is hereby amended to read as follows:

618.170 1. [An] *A boiler* inspector shall submit to the enforcement section within 30 days after the inspection, on *a* form [NB-5 of the national board inspection code,] *approved by 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] *must* be made by [an owner or user.

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] *a boiler inspector.*

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.

**Sec. 57.** NAC 618.172 is hereby amended to read as follows:

618.172 1. Except as otherwise provided in subsection 4, the owner or user of a boiler or pressure vessel must obtain [a valid] *an* 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;

*or*

(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)] 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] 618.175 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 [.] , and sections 7 to 12, inclusive, of this regulation.

**Sec. 58.** NAC 618.173 is hereby amended to read as follows:

618.173 An inspection for an operating permit must be an internal inspection [when] if 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.] comply with the requirements set forth in NAC 618.175.

**Sec. 59.** NAC 618.174 is hereby amended to read as follows:

618.174 1. The inspection for [a certificate] an operating permit must be conducted before the expiration date of the [current] operating permit at a time agreed upon by the boiler inspector and the owner or user.

2. An external inspection may be performed by the boiler 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 inspector decides that continued operation of the boiler or pressure vessel constitutes a menace to the safety of 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 inspector.]

**Sec. 60.** NAC 618.175 is hereby amended to read as follows:

618.175 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 *boiler* 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 in the report of inspection the type of inspection that was performed.*

**Sec. 61.** NAC 618.178 is hereby amended to read as follows:

618.178 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 , *while in operation*, approximately 6 months after the date of the internal inspection. 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, *at least* once each year , and externally, while in operation, [*at least once each year.*] *approximately 6 months after the date of the internal inspection. If it is not possible to conduct an internal inspection, a high-pressure, high temperature water boiler must be inspected externally at least once every 6 months.*

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,] *if*, in his opinion, an inspection is necessary to determine the *operational* safety of the boiler or pressure vessel.

9. An [owner or user who] *inspection organization that* has been authorized by the enforcement section to inspect [his own] *its boilers and* pressure vessels may request approval from the enforcement section to inspect [his] *its boilers and* pressure vessels at a different interval.

10. Upon application from a petroleum company, chemical plant, public utility or other [industry] *employer* considered by the enforcement section as 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 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.

**Sec. 62.** NAC 618.181 is hereby amended to read as follows:

618.181 1. The owner or user shall prepare each boiler or pressure vessel for internal inspection and shall apply the hydrostatic or pressure test, whenever necessary, on the date specified by the boiler inspector. The date must not be less than 7 days after the date of notification by the authorized inspection entity that an inspection will be made.

2. The owner or user of a boiler shall prepare it for internal inspection as follows:

(a) Water must be drawn off and the boiler washed thoroughly.

(b) Plates for a manhole or handhole, washout plugs and inspection plugs in the connections of the water column must be removed. The furnace and combustion chambers must be thoroughly cooled and cleaned.

(c) All grates of internally fired boilers must be removed.

(d) Brickwork or insulation must be removed as required by the *boiler* inspector to determine the condition of the boiler, headers, furnace, supports or other parts.

(e) The pressure gauge must be removed for testing.

(f) Any leakage of steam or hot water into the boiler must be prevented by disconnecting the pipe or valve at the most convenient point or by any method approved by the *boiler* inspector.

(g) Before opening the cover for a manhole or handhole and entering any parts of the boiler which connect to a common header with other boilers, the nonreturn valve, steam stop valves, blowoff valves and feed valves must be closed, tagged and padlocked, and the drain valves or cocks located between valves must be opened. Blowoff lines must be disconnected between pressure parts and valves where practicable. All drains and vent lines must be opened.

3. Pressure vessels must be prepared for inspection to the extent deemed necessary by the *boiler* inspector using the applicable procedures [outlined] *set forth* in subsection 2.

**Sec. 63.** NAC 618.184 is hereby amended to read as follows:

618.184 If a boiler or pressure vessel has not been properly prepared for **[an internal]** *a 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.

**Sec. 64.** NAC 618.187 is hereby amended to read as follows:

618.187 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 *boiler* 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 *the* thickness **[.]** *and condition of the covered areas.*

**Sec. 65.** NAC 618.190 is hereby amended to read as follows:

618.190 If, upon an external inspection, there is evidence of a leak or crack, sufficient covering of the boiler or pressure vessel must be removed to permit the *boiler* inspector to **[satisfactorily]** determine *satisfactorily* the safety of the boiler or pressure vessel. If the covering cannot be removed at that time, **[he]** *the boiler inspector* may order the operation of the boiler or pressure vessel discontinued until the covering can be removed and a proper examination *can be* made.

Sec. 66. NAC 618.192 is hereby amended to read as follows:

618.192 If **[an]** *a boiler* inspector determines that there is a violation of the code or NAC 618.010 to 618.340, inclusive, **[he]** *or sections 7 to 12, inclusive, of this regulation, the boiler inspector* shall notify the owner or user in writing, describe the nature of the violation and refer to the section of the appropriate code or NAC 618.010 to 618.340, inclusive **[.]** , *or sections 7 to 12, inclusive, of this regulation.* The enforcement section **[will]** *shall* fix a reasonable time for the owner or user to correct the condition creating the violation.

Sec. 67. NAC 618.193 is hereby amended to read as follows:

618.193 1. 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 condition that his insurance company would refuse to issue insurance for it, the insurance company]** *an unsafe condition, the boiler inspector* shall immediately notify the enforcement section and submit a report **[on]** *of* the defects.

2. If **[the special inspector finds a]** , *as the result of an external inspection, the boiler inspector determines that the continued operation of a boiler or pressure vessel* **[to be unsafe for further operation, he shall]** *constitutes an unsafe condition to the employees, the boiler inspector:*

(a) *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] *boiler* inspector shall immediately notify the enforcement section. Until the corrections have been made, the boiler or pressure vessel involved must not be operated and the operating permit [will be suspended] *may be revoked* by the chief.

(b) *May require an internal inspection or a 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 internal inspection or pressure test.*

**Sec. 68.** NAC 618.199 is hereby amended to read as follows:

618.199 If an accident occurs which renders a boiler or pressure vessel inoperative, the owner or user shall immediately notify the enforcement section in writing and submit a detailed report of the accident. In case of a serious accident [such as] , *including* an explosion, notice must be given immediately by telephone, telegraph or messenger. Neither the boiler nor pressure vessel, nor any parts thereof, may be removed or disturbed before an inspection has been made by the *boiler* inspector unless human life is endangered or except to limit further damage.

**Sec. 69.** NAC 618.202 is hereby amended to read as follows:

618.202 1. Any boiler or pressure vessel which has been inspected and declared unsafe by an inspector will be stamped by the *boiler* inspector with the letters “XXX” on each side of the number designated by the state.

2. No person may use or offer for sale a condemned boiler or pressure vessel for operation in this state.

**Sec. 70.** NAC 618.208 is hereby amended to read as follows:

618.208 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 *pursuant to NAC 618.214* before the construction or installation begins. The application must include the American Society of Mechanical ~~Engineer's~~ *Engineers'* data report of the manufacturer concerning the construction of the boiler or pressure vessel, *or its equivalent if the code used was not the code of the American Society of Mechanical Engineers*, unless the boiler is constructed of cast iron.

**Sec. 71.** NAC 618.214 is hereby amended to read as follows:

618.214 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~~ *Engineers'* 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 of [an] inspection by [an inspector holding a commission from the national board.] *a boiler inspector*. 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, [will be considered as a new] *and sections 7 to 12, inclusive, of this regulation shall be deemed an installation of a new boiler or pressure vessel* and must be referred to the enforcement section for [clarification.] *approval*.

**Sec. 72.** NAC 618.215 is hereby amended to read as follows:

618.215 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.

**Sec. 73.** NAC 618.217 is hereby amended to read as follows:

618.217 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] *nameplate or stamping of the manufacturer* 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.

**Sec. 74.** NAC 618.219 is hereby amended to read as follows:

618.219 1. A boiler or pressure vessel for which a manufacturer’s data report is required by the American Society of Mechanical Engineers must bear the manufacturer’s number beginning with NB as registered with the national board. A copy of the manufacturer’s data report, signed by the manufacturer’s representative and the *boiler* inspector, [commissioned by the national board,] must be filed with the enforcement section.

2. If a boiler or pressure vessel cannot be properly stamped because of a valid impediment to full compliance with the code, the details, in English, of the construction, customary units of the proposed material for construction, and the specification and calculations for the construction of the boiler or pressure vessel must be submitted to the enforcement section by the owner or user, and the approval of the enforcement section as a “STATE SPECIAL” must

be received before construction is started. The specification and calculations for the construction of the boiler or pressure vessel must be approved by a registered professional engineer who is experienced in the design of boilers and pressure vessels before submission to the enforcement section.

**Sec. 75.** NAC 618.220 is hereby amended to read as follows:

618.220 [Any] 1. *A boiler* inspector may decrease the working pressure on [any existing installation of] , *and the temperature of,* a boiler or pressure vessel if the condition of the boiler or pressure vessel [warrants] *requires* the decrease. If the owner or user does not concur with the [inspector's decision,] *decision of the boiler inspector,* the owner or user may appeal the decision to the chief.

2. The chief may request a joint inspection by a boiler inspector and [a special inspector.] *an inspector from:*

(a) *An insurance company; or*

(b) *An inspection organization.*

Each inspector shall render his report to the chief . [, and the] *The* chief shall render [the] *a* final decision [,] based upon the data contained in [all of] the reports submitted by the inspectors.

**Sec. 76.** NAC 618.233 is hereby amended to read as follows:

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

1. *Heating boiler;*

2. *Power]* :

1. *A heating boiler;*

2. *A hot water supply boiler;*
3. *A fired storage water heater;*
4. *A power or process boiler;* or
- [3. **Pressure**]
5. *An 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 boiler inspector.

**Sec. 77.** NAC 618.237 is hereby amended to read as follows:

618.237 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 backflow prevention device *that is approved pursuant to the code* is installed to prevent contamination or pollution of the water supply.

**Sec. 78.** NAC 618.241 is hereby amended to read as follows:

618.241 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] *a boiler* inspector must be consulted about the best method of making the repair or alteration. After the repair or alteration is made, the *boiler* inspector shall inspect it [.] *pursuant to the code*. The contractor who makes such repairs or alterations shall submit [an R-1 report] *the prescribed "R" form of the national board* 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 must hold a classification C-1 license issued by the state contractors' board pursuant to NAC 624.190.*

4. The contractor who makes repairs *or alterations* by fusion welding to the pressure parts of a boiler or pressure vessel must hold a [valid stamp bearing] *certificate of authorization and a stamp designated as* an R issued by the national board [.

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 [alterations.] *repair or alteration.*

5. *Repairs made by fusion welding must not be made to the pressure parts of a boiler constructed of cast iron before authorization to make the repairs is obtained from the chief.*

**Sec. 79.** NAC 618.242 is hereby amended to read as follows:

618.242 A person who is in the business of repairing safety valves must have a *certificate of authorization and a* stamp designated as “VR” from the national board.

**Sec. 80.** NAC 618.247 is hereby amended to read as follows:

618.247 1. Each automatically controlled boiler must be provided with a control for water level which automatically maintains the water level in the boiler within the range of the gauge glass.

2. Whenever repairs are made to fittings or appliances or it becomes necessary to replace them, the repairs must comply with [section] :

(a) *Section IV of the [code] ASME Boiler and Pressure Vessel Code, adopted by reference pursuant to NAC 618.148, for new construction of heating boilers ; or [section]*

*(b) Section I of the ASME Boiler and Pressure Vessel Code, adopted by reference pursuant to NAC 618.148, for new construction of power boilers.*

**Sec. 81.** NAC 618.250 is hereby amended to read as follows:

618.250 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.] *ASME Boiler and Pressure Vessel Code, adopted by reference pursuant to NAC 618.148.*

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 water-heating 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 *discharge* and *the* atmosphere. [When an escape pipe is used, it] *A discharge pipe* 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] *discharge pipe. If* an elbow is placed on a safety valve or [escape] *discharge* pipe, it must be located close to the outlet of the safety valve or [the escape]

*discharge* pipe *and* must 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**] *if* 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**] *if* 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] *set forth* in the appendix of section I of the [code.] *ASME Boiler and Pressure Vessel Code, adopted by reference pursuant to NAC 618.148.*

(c) By measuring the maximum amount of feed water that can be evaporated.

10. [When] *If* either of the methods outlined in paragraph (b) or (c) of subsection 9 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. The capacity rating of a steam or vapor service or of water pressure relieving device must be expressed in:*

*(a) Pounds per hour; and*

*(b) British thermal units per hour for water or liquid heated directly or indirectly.*

**Sec. 82.** NAC 618.253 is hereby amended to read as follows:

618.253 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 *steam* 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 inch in diameter.

2. No safety valve for a *low pressure* steam boiler may be smaller than [~~one-half~~] *three-quarters* of an inch. No safety valve may be larger than 4 1/2 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 per 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 fired .....	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]** *If* 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 1/2 pounds per hour per kilowatt input.

6. The safety valve capacity for each steam boiler must be such that [with] , if the fuel-burning equipment is installed [,] and operated at maximum capacity, the pressure cannot rise more than 6 PSIG above the maximum allowable working pressure.

7. [When] If 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 [.] as set forth in 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.] *ASME Boiler and Pressure Vessel Code, adopted by reference pursuant to NAC 618.148.*

9. No valve of any description may be placed between the safety valve and the boiler [, nor] or 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] If 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] from safety valves must be so located or piped as not to endanger persons working in the area.

**Sec. 83.** NAC 618.256 is hereby amended to read as follows:

618.256 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] *if* tested by steam. [When] *If* more than one safety relief valve is used on hot water heating or hot water supply boilers, the additional valve must be rated by the American Society of Mechanical Engineers *or the national board* and set within a range not to exceed 6 PSIG above the maximum allowable working pressure of the boiler up to and including 60 PSIG and 10 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] *if* 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 1/2 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. When]

5. If 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 *as set forth in the code* and must be in accordance with subsection [5.] 4. The additional valves required because of changed conditions may be installed on the outlet piping if there is no intervening valve.

[7.] 6. If there is any doubt as to the capacity of the safety relief valve, an accumulation test must be run as provided in section VI of the [code.

8.] *ASME Boiler and Pressure Vessel Code, adopted by reference pursuant to NAC 618.148.*

7. No valve of any description may be placed between the safety relief valve and the boiler, [nor] *or* on the discharge pipe between the safety relief valve and the atmosphere. The discharge pipe must be at least full size and fitted with an open drain to prevent water from lodging in the upper part of the safety relief valve or in the discharge pipe. [When] *If* an elbow is placed on the discharge pipe, it must be located close to the safety relief valve outlet or the discharge pipe must be securely anchored and supported. All discharges from the safety relief valve must be so located or piped as not to endanger persons working in the area.

**Sec. 84.** NAC 618.259 is hereby amended to read as follows:

618.259 1. [No person may] *A person shall not* install, operate, sell or offer for sale nonstandard boilers [and] *or* pressure vessels in this state without *the* 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, it may] *service, the nonstandard boiler or pressure vessel must* not be [brought back and] *returned to service or* reinstalled without the permission of the [enforcement section.] *chief.*

**Sec. 85.** NAC 618.268 is hereby amended to read as follows:

618.268 1. Except as otherwise provided in this section, the maximum allowable working pressure of a nonstandard boiler is determined by the following formula:

TStE

— = maximum allowable working pressure, *in* PSIG

RFS

where:

TS = ultimate tensile strength of shell plate, in PSIG. If the tensile strength is not known, it shall be deemed to be 55,000 PSIG for steel and 45,000 PSIG for wrought iron.

t = minimum thickness of shell plate of weakest course, in inches.

E = efficiency of longitudinal joint:

For tube ligaments, E is determined by the appropriate provisions [in **section 1**] *of section I* of the [code.] *ASME Boiler and Pressure Vessel Code, adopted by reference pursuant to NAC 618.148.*

For riveted construction, E is determined by the appropriate provisions of the national board inspection code.

For seamless construction, E must be 100 percent.

R = inside radius of weakest course of shell, in inches.

FS = factor of safety permitted by [these regulations.] *this chapter.*

2. The resistance of mild steel to crushing shall be deemed to be 95,000 PSIG.
3. [When] *If* computing the ultimate strength of rivets in shear, the following values in pounds per square inch of the cross-sectioned area of the shank of the rivet must be used:

PSIG

Iron rivets in single shear.....	38,000
Iron rivets in double shear .....	76,000
Steel rivets in single shear.....	44,000
Steel rivets in double shear.....	88,000

4. If the diameter of the rivet holes in the longitudinal joints of a boiler is not known, the diameter and cross-sectioned area of rivets, after driving, may be selected from the following table or ascertained by cutting out one rivet in the body of the joint.

Sizes of Rivets Based on Plate Thickness

Thickness of plate, <i>in</i> inches	1/4	9/32	5/16	11/32	3/8	13/32
Diameter of rivet after driving, <i>in</i> inches	11/16	11/16	3/4	3/4	13/16	13/16
Thickness of plate, <i>in</i> inches	7/16	15/32	1/2	9/16	5/8	
Diameter of rivet after driving, <i>in</i> inches	15/16	15/16	15/16	1-1/16	1-1/16	

5. A nonstandard boiler with welded seams may not be operated at pressures exceeding 15 PSIG for steam and 30 PSIG for water.

6. The maximum allowable working pressure may be decreased by the *boiler* inspector if the condition and safety of the boiler warrant it.

7. The lowest factor of safety permissible on existing installations is [4.5, or 8 for horizontal-return tubular boilers having continuous longitudinal lap seams more than 12 feet in length.] *the factor set forth in the edition of the code that was applicable at the time of construction.* If the latter type of boiler is removed from its existing setting, it must not be reinstalled for pressures in excess of 15 PSIG.

8. Reinstalled or secondhand boilers must have a minimum factor of safety of 6 [when] *if* the longitudinal seams are of lap-riveted construction, and a minimum factor of safety of 5 [when] *if* the longitudinal seams are of butt- and double-strap construction.

**Sec. 86.** NAC 618.271 is hereby amended to read as follows:

618.271 Except as otherwise provided in NAC 618.272 [.] *and section 11 of this regulation*, if boilers are replaced or new boilers are installed in existing or new buildings, a minimum height of at least 3 feet must be provided between the top of the boiler, excluding appurtenances, and the ceiling and at least 3 feet between any side of the boiler and any adjacent wall or other structure. Boilers 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] *If* pressure vessels are installed or replaced, there must be an area of unobstructed clearance which is at least 18 inches wide and provides access for inspection, maintenance and repair. Clearance for repairs and cleaning may be provided through a door or access panel into another area if the door or access panel is large enough to allow the repairs and cleaning to be performed adequately.

**Sec. 87.** NAC 618.280 is hereby amended to read as follows:

618.280 The return water connections to all low-pressure steam heating boilers supplying a gravity return heating system must be arranged to form what is known as the return pipe loop connection, so that the water cannot be forced out of the boiler below the safe water level. This connection is shown in section IV of the [code.] *ASME Boiler and Pressure Vessel Code*, *adopted by reference pursuant to NAC 618.148.*

**Sec. 88.** NAC 618.292 is hereby amended to read as follows:

618.292 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. *Air used for combustion must not be taken from a room that contains equipment for refrigeration.*

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.] *adopted by reference pursuant to NAC 618.148.*

**Sec. 89.** NAC 618.298 is hereby amended to read as follows:

618.298 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] *if* 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] *If the* attendance of the boiler is required pursuant to this section, a time clock to [automatically] start or stop *automatically* 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:] *adopted by reference pursuant to NAC 618.148:*

(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, 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.

6. *As used in this section, “supercritical pressure” means 3206 pounds of pressure per square inch at 705° F.*

**Sec. 90.** NAC 618.323 is hereby amended to read as follows:

618.323 The maximum allowable working pressure permitted for:

1. Formed heads and their tensile strength and factors of safety; and
2. Nonstandard pressure vessels subjected to external pressure,

must be determined by section VIII, division 1 of the [code.] *ASME Boiler and Pressure Vessel Code, adopted by reference pursuant to NAC 618.148.*

**Sec. 91.** NAC 618.328 is hereby amended to read as follows:

618.328 1. The maximum allowable working pressure for standard pressure vessels must be determined in accordance with the applicable provisions of the edition of the code of the American Society of Mechanical Engineers or of the American Petroleum Institute in conjunction with the American Society of Mechanical Engineers under which they were constructed and stamped.

2. The maximum allowable working pressure on the shell of a nonstandard pressure vessel must be determined by the following formula:

TStE

— = maximum allowable working pressure, *in* PSIG

RFS

where:

TS = ultimate tensile strength of shell plate, *in* PSIG. If the tensile strength of carbon steel plate is not known, it shall be deemed to be 55,000 PSIG for temperatures not exceeding 650° F. For *all* other materials, the lowest stress values for that material designated in section VIII of the [code] *ASME Boiler and Pressure Vessel Code, adopted by reference pursuant to NAC 618.148*, must be used.

t = minimum thickness of shell plate of weakest course, in inches.

E = efficiency of longitudinal joint, depending upon construction. The following values must be used:

For riveted joints, calculated riveted efficiency.

For fusion-welded and brazed joints:

Single lap weld	40 percent
Double lap weld	50 percent
Single butt weld	60 percent
Double butt weld	70 percent
Forge weld	70 percent
Brazed steel	80 percent

R = inside radius of weakest course of shell, in inches, if the thickness does not exceed 10 percent of the radius. If the thickness is [over] *more than* 10 percent of the radius, the outer radius must be used.

FS = factor of safety.

3. The maximum allowable working pressure for nonstandard pressure vessels subjected to external pressure will be determined by the applicable provisions in division 1 of section VIII of the [code.] *ASME Boiler and Pressure Vessel Code, adopted by reference pursuant to NAC 618.148.*

4. The minimum factor of safety may not be less than [4 for existing installations.] *the factor set forth in the edition of the code that was applicable at the time of construction.* The maximum allowable working pressure may be decreased [when] *if* deemed necessary by the *boiler* inspector to ensure the operation of the vessel within safe limits. The *boiler* inspector shall consider the condition of the vessel and the particular service to which it is subjected.

5. The maximum allowable working pressure permitted for formed heads under pressure will be determined by using the appropriate formulas [of division] *set forth in:*

(a) *Division* 1 of section VIII of the [code and subsections] *ASME Boiler and Pressure Vessel Code, adopted by reference pursuant to NAC 618.148; and*

(b) *Subsections* 3 and 4 . [of this section.]

**Sec. 92.** NAC 618.400 is hereby amended to read as follows:

618.400 As used in NAC [618.403] 618.400 to 618.484, inclusive, unless the context otherwise requires, the words and terms defined in NAC [618.403] 618.406 to 618.436, inclusive, have the meanings ascribed to them in those sections.

**Sec. 93.** NAC 618.435 is hereby amended to read as follows:

618.435 “Related equipment” means any manlifts, personnel hoists and any other related equipment designated by the [administrator.] chief.

**Sec. 94.** NAC 618.4355 is hereby amended to read as follows:

618.4355 “Safety code” means the Safety Code for Elevators and Escalators, A17.1, [1990 edition,] 1996 edition and addenda, published by the American Society of Mechanical Engineers.

**Sec. 95.** NAC 618.438 is hereby amended to read as follows:

618.438 As used in NAC [618.403] 618.400 to 618.484, inclusive, unless the context otherwise requires, the words and terms defined in the safety code have the meanings ascribed to them in [that] the safety code.

**Sec. 96.** NAC 618.448 is hereby amended to read as follows:

618.448 1. The following codes, manuals and standards are hereby adopted by reference by the division for the design, construction, installation, operation, inspection, testing, maintenance, alteration and repair of elevators, dumbwaiters, escalators, moving walks and related equipment [at] and are available for the cost listed:

(a) Safety code, including appendices A to [H,] J inclusive, for [a] the cost of [\$120,] \$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 edition, published by the American National Standards Institute, at [a] *the* cost of [\$13.] \$21.

(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 *that are* 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 Exits.

(9) Delete rule 111.12 - Restricted Opening of Car Doors.

(b) Inspectors' Manual for *Electric* Elevators [and Escalators, A17.2, 1988 edition, promulgated] , A17.2.1, 1996 edition, published by the [American National Standards Institute in conjunction with the] American Society of Mechanical Engineers, at [a] *the* cost of [\$70.] \$52.

(c) *Inspector's Manual for Hydraulic Elevators, A17.2.2, 1997 edition, published by the American Society of Mechanical Engineers, at the cost of \$54.*

(d) *Inspector's Manual for Escalators and Moving Walks, A17.2.3, 1994 edition, published by the American Society of Mechanical Engineers, at the cost of \$42.*

(e) Safety Requirements for Personnel Hoists, A10.4, 1990 edition, published by the American National Standards Institute, at [a] *the* cost of [\$30.

(d) **Safety Standards]**

\$65.

(f) *Safety Standard for Belt Manlifts, A90.1, [1992 edition, promulgated] 1997 edition, published by the [American National Standards Institute in conjunction with the] American Society of Mechanical Engineers, at [a] the cost of [\$33.*

(e)] \$39.

(g) Handbook, A17.1, [1990] 1996 edition, published by the American Society of Mechanical Engineers, at [a] *the* cost of [\$116.

(f)] \$105.

(h) Safety Code for Existing Elevators and Escalators, A17.3, [1990] 1996 edition, published by the American Society of Mechanical Engineers, at [a] *the* 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] 1992 edition, published by the American National Standards Institute, at [a] *the* cost of [\$20.] \$48.

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.] *P.O. Box 2900, Fairfield, New Jersey 07007-2900.*

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,] *11 West 42nd Street*, New York, New York [10018.] *10036.*

**Sec. 97.** NAC 618.457 is hereby amended to read as follows:

618.457 1. [Operating permits] *An operating permit* 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. *The operating permit must set forth the number assigned by the enforcement section and the serial number assigned by the manufacturer for the elevator, dumbwaiter, escalator, moving walk or related equipment. The operating permit must be kept at the same location as the elevator, dumbwaiter, escalator, moving walk or related equipment.*

2. The [permits] *operating permit* 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.**] *not to exceed:*

*(a) One year for elevators, dumbwaiters and wheelchair lifts; or*

*(b) Six months for escalators or moving walks.*

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 *the* 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.

**Sec. 98.** NAC 618.478 is hereby amended to read as follows:

618.478 All new and existing elevators, dumbwaiters, escalators, moving walks and related equipment must be assigned a number by [the mechanical section.] *an inspector*. 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] *must* be shown on all required permits.

**Sec. 99.** NAC 618.490 is hereby amended to read as follows:

618.490 As used in NAC 618.490 to 618.507, inclusive, unless the context otherwise requires, the words and terms defined in NAC [618.492 to 618.501, inclusive.] *618.494, 618.496 and 618.501* have the meanings ascribed to them in those sections.

**Sec. 100.** NAC 618.503 is hereby amended to read as follows:

618.503 1. The division [of industrial relations of the department of business and industry] hereby adopts by reference the [American National Standard for Construction and Demolition Operations - Steel Erection Safety Standards, ANSI A 10.13, 1989, which is] *“Safety Requirements for Steel Erection,” ANSI A10.13, 1989 edition*, published by the American National Standards Institute, 11 West 42nd Street, New York, New York 10036. The standards may be purchased for the price of [\$20.] *\$32*.

2. Each contractor on a construction project shall comply with the standards adopted pursuant to subsection 1.

**Sec. 101.** NAC 618.507 is hereby amended to read as follows:

618.507 1. Except as otherwise provided in subsection 4, *the general contractor of a construction project or, if there is no general contractor, the owner, shall install* an elevator or personnel hoist for transporting workers [**must be installed and used in the construction of any**] *within each* building or structure *of the construction project* 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 after the date on which:*

*(1) The building or structure measures 60 feet above ground level or 48 feet below ground level; and*

*(2) The installation of the decking for the floor or roof begins.*

(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]

5. *As used in this section:*

(a) “Alternate means of [access means:

(a)] access” means:

(I) 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)] (I) Employees in the basket are protected by safety belts; and

[(2)] (II) Lanyards are attached from the safety belts to a hook on the cable for the crane.

[(b)] (2) 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)] (3) Appropriate elevating and rotating platforms that are vehicle mounted.

[(d)] (4) Any other means approved by the enforcement section.

*(b) "Ground level" means the level of the primary construction entrance to the building or structure.*

**Sec. 102.** NAC 618.538 is hereby amended to read as follows:

618.538 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 **[.]** *and section 13 of this regulation.*

**Sec. 103.** NAC 618.540 is hereby amended to read as follows:

618.540 1. Except as otherwise provided in this section, in addition to the requirements set forth in subsection 2 of NRS 618.383, a written safety program must include:

(a) A statement explaining that the managers, supervisors and employees are responsible for carrying out the program;

(b) An explanation of the methods used to identify, analyze and control new and existing hazardous conditions;

(c) An outline of the training program for employees which will be used to comply with NRS 618.383;

(d) The procedures that must be followed to investigate an accident which has occurred and the corrective actions that are to be initiated; and

(e) A method for ensuring that employees comply with the safety rules and work practices.

2. Except as otherwise provided in this section, an employer with more than 25 employees who is required to establish a safety committee pursuant to NRS 618.383 shall include in the written safety program:

- (a) The manner in which members of the committee are selected;
- (b) The purpose and duties of the committee; and
- (c) The frequency of the meetings of the committee.

3. In lieu of establishing a written safety program in accordance with subsections 1 and 2, an employer may establish an equivalent written safety program if he obtains the approval of the administrator . [of the division of industrial relations of the department of business and industry.]

**Sec. 104.** NAC 618.542 is hereby amended to read as follows:

618.542 1. An employer who establishes a written safety program shall keep written records of:

- (a) The safety and health issues which are discussed at the meetings of the safety committee, if he is required to establish such a committee;
  - (b) The attendance of those persons who participate in the meetings of the safety committee;
- and
- (c) The attendance of employees participating in the training programs.

2. The records must be:

- (a) Maintained for 3 years; and
- (b) Available for review by the division [of industrial relations of the department of business and industry] upon request.

**Sec. 105.** NAC 618.550 is hereby amended to read as follows:

618.550 As used in NAC 618.550 to 618.589, inclusive, *and sections 14 to 19, inclusive, of this regulation*, unless the context otherwise requires [:

1. “Act” means the Nevada Occupational Safety and Health Act in chapter 618 of NRS.
2. “Enforcement section” means the enforcement section of the division of industrial relations of the department of business and industry.
3. “Establishment” means:
  - (a) For a private employer, a single physical location where his business is conducted or where services or industrial operations are performed, such as a factory, mill, store, hotel, restaurant, movie theater, farm, bank, sales office, warehouse or central administrative office. Where distinctly separate activities are performed at a single physical location, for example, where construction activities under contract are operated from the same physical location as a lumber yard, each activity will be treated as a separate establishment.
  - (b) For a public employer:
    - (1) A single physical location where a specific governmental function is performed; or
    - (2) A location which is the lowest level where attendance or payroll records are kept for a group of employees who perform the same governmental function or who are in the same organizational unit, even though its activities are carried on at more than a single physical location.
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 visit for the purpose of observation, is considered first aid, even though provided by a physician or registered professional personnel.
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.

6. “Medical treatment” includes treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first-aid treatment, even though provided by a physician or registered professional personnel.

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;

(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.

7. *The] , the words and terms defined in NRS 618.029 to 618.165, inclusive, and sections 14 to 19, inclusive, of this regulation have the meanings ascribed to them in those sections.*

**Sec. 106.** NAC 618.553 is hereby amended to read as follows:

618.553 The provisions of NAC 618.550 to 618.589, inclusive, *and sections 14 to 19, inclusive, of this regulation* provide for **[recordkeeping]** :

1. *Recordkeeping* and reporting by employers covered under the act as necessary or appropriate for the enforcement of the act [, for developing] ;
2. *Developing* information regarding the causes and prevention of occupational injuries and illnesses [, and for maintaining] ; and
3. *Maintaining* a program of collection, compilation and analysis of statistics concerning occupational safety and health.

**Sec. 107.** NAC 618.574 is hereby amended to read as follows:

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

2. If the ownership of an establishment changes, the new employer is responsible for maintaining records and filing reports only for the period of the year during which he owns the establishment, but he shall preserve the records, if any, which the prior employer was required by this section to keep at the establishment.

**Sec. 108.** NAC 618.580 is hereby amended to read as follows:

618.580 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,*] *provisions of NAC 618.550 to 618.589, inclusive, and sections 14 to 19, inclusive, of this regulation,* 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.

**Sec. 109.** NAC 618.586 is hereby amended to read as follows:

618.586 1. Any public employer who wishes to maintain records in a manner different from that required by NAC 618.550 to ~~[618.586,]~~ 618.589, inclusive, *and sections 14 to 19, inclusive, of this regulation* may submit to the enforcement section, a petition containing:

- (a) The name and address of the applicant;
- (b) The address of the place and places of employment involved;
- (c) Specifications of the reasons for seeking relief;
- (d) A description of the different recordkeeping procedures which are proposed by the applicant;
- (e) A statement that the applicant has informed his affected employees of the petition by giving a copy thereof to them or to their authorized representative, by posting a statement giving a summary of the petition and by other appropriate means;
- (f) A statement that he has informed his affected employees of their rights under subsection 2; and
- (g) If the applicant has more than one establishment, a list of all his establishments which would be affected by the petition.

2. The applicant must post, at the place or places where notices to employees are normally posted, a notice summarizing the petition and a statement specifying where a copy of the full petition may be examined. The affected employees or their representatives may submit written

data, views or arguments concerning the petition to the enforcement section within 10 working days after the notice is posted.

3. The enforcement section will consult with appropriate representatives of the Bureau of Labor Statistics [*in order*] *of the United States Department of Labor* to ensure that the procedure in this section may be carried out effectively.

**Sec. 110.** NAC 618.589 is hereby amended to read as follows:

618.589 1. If an employer's establishment is classified within major groups 55 to [69, inclusive, 71 to 74, inclusive, 77, 78] 67, inclusive, 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,] 618.589, inclusive, *and sections 14 to 19, inclusive, of this regulation* 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 *and provide reports* 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] *the* manual may be obtained from the [Superintendent of Documents, United States Government Printing Office, Washington, D.C. 20402,] *National Technical Information Service, Springfield, Virginia 22161*, for the price of [\$15.] \$30.

**Sec. 111.** NAC 618.630 is hereby amended to read as follows:

618.630 As used in NAC [~~618.6301~~] ~~618.630~~ to 618.6382, inclusive, unless the context otherwise requires, the words and terms defined in NAC [~~618.6301~~] ~~618.6304~~ to 618.6313, inclusive, have the meanings ascribed to them in those sections.

**Sec. 112.** NAC 618.6316 is hereby amended to read as follows:

618.6316 An application for a permanent variance from a standard adopted under chapter 618 of NRS must:

1. Be submitted on a form provided by the [~~occupational safety and health~~] enforcement section . [~~of the division of industrial relations of the department of business and industry.~~]
2. Be legible.
3. Be signed by the applicant or his authorized representative.
4. Contain a statement, signed by a representative of the employees or an employee who knows the contents of the application, that he has read the application.

**Sec. 113.** NAC 618.6352 is hereby amended to read as follows:

618.6352 1. An applicant for relief and any affected employee are entitled to be named as parties to a hearing for a variance.

2. The [~~occupational safety and health~~] enforcement section [~~of the division of industrial relations of the department of business and industry,~~] , represented by the general counsel of the division [~~of industrial relations,~~] , shall be deemed to be a party to such a hearing.

**Sec. 114.** NAC 618.6373 is hereby amended to read as follows:

618.6373 A hearing must be stenographically reported or recorded on magnetic tape. Copies of the transcript may be obtained by the parties upon the filing of a written application with the reporter and the payment of fees at the rate provided in the agreement with the reporter or the [occupational safety and health] enforcement section . [of the division of industrial relations of the department of business and industry.]

**Sec. 115.** NAC 618.640 is hereby amended to read as follows:

618.640 As used in NAC 618.640 to 618.6491, inclusive, *and sections 20 to 25, inclusive, of this regulation*, unless the context otherwise requires, the words and terms defined in NAC 618.6401 to 618.6422, inclusive, *and section 20 of this regulation* have the meanings ascribed to them in those sections.

**Sec. 116.** NAC 618.6425 is hereby amended to read as follows:

618.6425 In computing any period of time prescribed or allowed in NAC 618.640 to 618.6491, inclusive, *and sections 20 to 25, inclusive, of this regulation* the day from which the designated period begins to run is not included. The last day of the period so computed is included.

**Sec. 117.** NAC 618.6428 is hereby amended to read as follows:

- 618.6428 1. An employer shall:
- (a) Post all notices provided by the enforcement section in each of his establishments in a conspicuous place where he customarily posts notices to employees; and
  - (b) Ensure that [such] *those* notices are not altered, defaced or covered by other material.
2. Reproductions or facsimiles of [such] *those* notices must be at least 8 1/2 inches by 14 inches. The size of the print must be at least 10-point type. If the size of the notice is

increased, the size of the print must be increased accordingly. The caption or heading on the notice must be printed in not less than 36-point type.

3. Where separate activities are performed at a single physical location, each activity must be treated as being conducted at a separate physical establishment, and separate notices must be posted at the site of each activity to the extent that sufficient copies of the notices have been furnished by the enforcement section. If an employer is engaged in dispersed activities, the notices must be posted at the location to which his employees report each day. If the employees do not usually work at or report to a single establishment, the notices must be posted at the location from which the employees operate.

4. District managers shall maintain and make available upon request copies of chapter 618 of NRS, all regulations of the division [of industrial relations of the department of business and industry] and all applicable standards. If an employer has copies of these materials, he shall make them available upon request to any employee or his authorized representative for review in the establishment where the employee is employed on the same day the request is made or at the earliest time which is mutually convenient to the employee or his authorized representative and the employer.

**Sec. 118.** NAC 618.6464 is hereby amended to read as follows:

618.6464 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] *issue an emergency order* pursuant to NRS 618.545; and

(b) [Post a notice on Form DOSH-8, Notice of] *Upon the approval of the administrator, deliver or cause to be delivered Form OSHES-8, Emergency Restraining Order to Remove Alleged Imminent Danger, [at the site of the danger] to the employer or his representative.*

**Sec. 119.** NAC 618.6467 is hereby amended to read as follows:

618.6467 1. Except as otherwise provided in this section [,] *and section 25 of this regulation*, upon receipt of any citation or notice of violation, the employer shall immediately post the citation or notice, or a copy of it, unedited, at or near each place where the alleged violation occurred.

2. Where, because of the nature of the employer's operations, it is not practicable to post the citation or notice of violation at or near each place of alleged violation, the citation or notice of violation must be posted, unedited, in a prominent place where it will be readily observable by all affected employees. If the employees are engaged in activities which are physically dispersed, the citation or notice may be posted at the location to which the employees report each day.

3. If the employees do not primarily work at or report to a single location, the citation or notice of violation may be posted at the location from which the employees operate to carry out their activities.

4. The employer shall ensure that the citation or notice of violation is not altered, defaced or covered by other material.

5. Each citation or notice of violation, or copy of it, must be kept posted until the violation has been abated, or for 3 working days, whichever is later.

6. An employer must comply with the posting requirements of this section even if he files a notice of his intent to contest a citation.

7. An employer is not required to comply with the requirements of this section after the board issues a final order vacating a citation.

8. An employer to whom a citation has been issued may post a notice of his intent to contest the citation in the same location where the citation is posted. The employer's notice may explain the reason for such a contest and indicate the steps that have been taken to abate the violation.

**Sec. 120.** NAC 618.695 is hereby amended to read as follows:

618.695 1. Before the board is notified of an appeal or contest, all papers required to be filed must be filed with the chief at 400 [W.] West King Street, Suite 200, Carson City, Nevada 89703. After the board is notified of an appeal or contest, all papers required to be filed must be filed with the board at the address given in the notice of the appeal or contest.

2. Except as otherwise ordered by the chief or the board, all papers required to be filed must be filed by first-class certified mail, return receipt requested, or by personal delivery, with an affidavit of service.

3. The filing is effective at the time of mailing.

**Sec. 121.** NAC 618.701 is hereby amended to read as follows:

618.701 1. Any party to or intervener in a hearing before the board may appear in person or through a representative.

2. A representative of a party or intervener controls all matters respecting the interest of the party or intervener in the proceeding.

3. Affected employees who are represented by an authorized employee representative may appear only through the authorized employee representative.

4. A representative of a party, an intervener or *a representative* of employees is not required to be an attorney at law.

5. Unless 1 year has elapsed since the termination of his employment, a former employee of the division [of industrial relations of the department of business and industry or] , *the* enforcement section or the chief may not appear before the board as an attorney or other representative for any party in any proceeding or other matter, formal or informal, for which he was personally responsible during the period of his employment.

**Sec. 122.** NAC 618.710 is hereby amended to read as follows:

618.710 1. If an affected employee is not represented by an authorized employee representative, the employer shall, immediately upon receipt of the notice sent by the enforcement section to the board, post, where the citation is required to be posted, a copy of the statement informing affected employees of their right to participate as a party and of the availability of all pleadings for inspection and copying at reasonable times. The notice may be in the following form:

(Name of employer)

Your employer has been cited by the chief of the occupational safety and health enforcement section of the division of industrial relations of the department of business and industry for violation of the Nevada Occupational Safety and Health Act, chapter 618 of NRS. The citation has been contested and will be the subject of a hearing before the occupational safety and health review board. Affected employees are entitled to participate in this hearing as parties under terms and conditions established by the occupational safety and health review board in NAC 618.650 to 618.848, inclusive [.] *and sections 26 to 33, inclusive, of this regulation.* Notice of intent to participate must be sent, at least 30 days before the date of the hearing, to:

Occupational Safety and Health Review Board

400 [W.] *West* King Street, Suite 200

Carson City, Nevada 89703

All papers relevant to this matter may be inspected at:

(Place reasonably convenient to employees, preferably at or near workplace).

If appropriate, the second sentence of this notice may be deleted and the following sentence may be substituted:

The reasonableness of the period prescribed by the chief for abatement of the violation has been contested and will be the subject of a hearing before the occupational safety and health review board.

2. The authorized employee representative must be served with the notice in subsection 1 and with a copy of the notice of the appeal or contest.

3. A copy of the notice of the hearing to be held before the board must be served by the employer on affected employees who are not represented by an authorized employee representative by posting a copy of the notice of the hearing at or near the place where the citation is required to be posted.

4. A copy of the notice of the hearing to be held before the board must be served by the employer on the authorized representative of any employee who has entered an appearance as of the date the notice is received by the employer.

5. If a notice of contest is filed by an affected employee who is not represented by an authorized employee representative and there are other affected employees who are represented by an authorized employee representative, the unrepresented employee shall serve a copy on the authorized representative as prescribed in subsection 3 of NAC 618.707 and file proof of the service.

6. If a notice of contest is filed by an affected employee or an authorized employee representative, a copy of the notice of contest and the response filed in support of the contest must be provided to the employer for posting as prescribed in subsection 1.

7. An authorized employee representative who files a notice of contest shall serve a copy of the notice on any other authorized employee representative whose members are affected employees.

8. Where posting is required by this section, the posting must be maintained until the commencement of the hearing or until an earlier disposition of the contest or appeal.

**Sec. 123.** NAC 618.752 is hereby amended to read as follows:

618.752 The board will conduct a fair and impartial hearing to assure that the facts are fully elicited to adjudicate all issues and avoid delay. The board will, between the time it is notified of an appeal or contest and the time it issues a decision:

1. Rule upon offers of proof and receive relevant evidence;
2. Take or cause depositions to be taken whenever the needs of justice would be served;
3. Regulate the course of the hearing and, if appropriate or necessary, exclude persons from the hearing for contemptuous conduct and strike all related testimony of witnesses refusing to answer any proper questions;
4. Hold conferences for the settlement or simplification of the issues;
5. Dispose of procedural requests or similar matters, including motions referred to the board by the chief and motions to amend pleadings, to dismiss complaints or portions of them and to order hearings reopened or, upon motion, consolidated before the issuance of the chairman's report;
6. Make decisions in conformity with the act;
7. Call and examine witnesses and introduce into the record documentary or other evidence;

8. Request the parties at any time during the hearing to state their respective positions concerning any issue in the case or theory in support of the case;
9. Adjourn the hearing as the needs of justice and good administration require; and
10. Take any other action necessary and authorized by the regulations of the board or the division . *[of industrial relations of the department of business and industry.]*

**Sec. 124.** NAC 618.850 is hereby amended to read as follows:

618.850 As used in NAC *[618.851] 618.850* to 618.986, inclusive, *and sections 26 to 33, inclusive, of this regulation*, unless the context otherwise requires, the words and terms defined in NAC 618.851 to *[618.905,] 618.904*, inclusive, *and sections 26 to 29, inclusive, of this regulation* have the meanings ascribed to them in those sections.

**Sec. 125.** NAC 618.879 is hereby amended to read as follows:

618.879 “Inspector” means a licensed consultant who is specially accredited to *[identify and assess the condition of material containing asbestos.]* :

1. *Determine the presence, condition and location of building material that is material presumed to contain asbestos; and*
2. *Collect samples of building material to determine the amount of asbestos in the material.*

**Sec. 126.** NAC 618.883 is hereby amended to read as follows:

618.883 “Licensee” means any person who is licensed by the enforcement section pursuant to NAC 618.850 to 618.986, inclusive *[.]* , *and sections 26 to 33, inclusive, of this regulation.*

**Sec. 127.** NAC 618.890 is hereby amended to read as follows:

618.890 “Occupant” means any person who is physically located under or within a structure or building. *The term does not include a person who is involved in an activity for the abatement of asbestos.*

**Sec. 128.** NAC 618.891 is hereby amended to read as follows:

618.891 “Plan for the abatement of asbestos” means [those] *the written* specifications for *a project for* the abatement of asbestos which are set forth in [Appendix F of] 29 C.F.R. [§ 1926.58.] § 1910.1001 and 29 C.F.R. § 1926.1101.

**Sec. 129.** NAC 618.893 is hereby amended to read as follows:

618.893 “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 *any other* material containing asbestos . [located on any other surface.] The term does not include large projects which are divided into smaller segments.

**Sec. 130.** NAC 618.894 is hereby amended to read as follows:

618.894 “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 *any other* material containing asbestos . [located on any other surface.] The term includes 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.

**Sec. 131.** NAC 618.907 is hereby amended to read as follows:

618.907 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 *40 C.F.R. 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 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 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.] *An owner of a building shall comply with the requirements for the communication of hazards set forth in 29 C.F.R. § 1910.1001(j) and 29 C.F.R. § 1926.1101(k).*

**Sec. 132.** NAC 618.910 is hereby amended to read as follows:

618.910 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] *enforcement section* at 400 [W.] *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 enforcement section and proof of industrial insurance is provided.] *A license issued by the enforcement section is valid:*

(a) *Until the expiration date of the certificate for a training course or a refresher training course; or*

(b) *For 1 year,*  
*whichever occurs earlier.*

**Sec. 133.** NAC 618.912 is hereby amended to read as follows:

618.912 The enforcement section may deny an application for an initial license or the renewal of a license if an applicant fails to demonstrate competency in the field of asbestos abatement, including, but not limited to:

1. Failure to demonstrate his ability to comply fully with the applicable requirements, procedures and standards set forth in NAC 618.850 to 618.986, inclusive [.] , *and sections 26 to 33, inclusive, of this regulation.*
2. Any history of incompetence or negligence on the part of the applicant or his employees or agents, or both, with regard to asbestos abatement.
3. Submission of false information or documentation required in an application or regulation, [**when**] *if* requested by the enforcement section.
4. Failure to submit any information or documentation required in an application or regulation, [**when**] *if* requested by the enforcement section.
5. Any past violation of state or federal laws or regulations relating to the abatement of asbestos.
6. Failure to provide proof of the maintenance of a [**valid**] policy of industrial insurance as required by [**NAC 618.947.**] *chapters 616A to 617, inclusive, of NRS.*

**Sec. 134.** NAC 618.913 is hereby amended to read as follows:

618.913 1. A licensee must submit an application for the renewal of his license [**on or before January 1 of each year.**] *before the license expires.*

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 400 [W.] West King Street, Suite 200, Carson City, Nevada 89703.

3. An application must be accompanied by:

(a) Evidence that the applicant has , *within the preceding 12 months*, completed [an annual] *a refresher* training course 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 on or before December 1, accompanied by the required fee, the license does not expire until final action on the application has 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.

8.] 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 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 enforcement section and proof of industrial insurance is provided.]

*6. Before the license of a contractor or consultant may be renewed, the contractor or consultant must abate all conditions for which the contractor or consultant has been issued a citation by the enforcement section and pay all fines due to the division.*

**Sec. 135.** NAC 618.914 is hereby amended to read as follows:

618.914 [The] *1. Except as otherwise provided in subsection 2, the* renewal fee for:

[1.] *(a)* A contractor is \$200.

[2.] *(b)* A supervisor is \$50.

[3.] *(c)* An abatement worker is \$25.

[4.] *(d)* A consultant is \$100.

*2. The fee for the first renewal is one half of the applicable amount set forth in subsection 1 if:*

*(a) The training certificate expires within 6 months after the date on which the license was issued;*

*(b) Proof of the applicant's completion of a refresher training course is received by the enforcement section before the license expires; and*

*(c) The application for renewal is received by the enforcement section before the license expires.*

*3. The division shall refund the renewal fee if the application to renew the license is denied.*

**Sec. 136.** NAC 618.915 is hereby amended to read as follows:

618.915 A person who is authorized to act as a consultant or to engage in an activity for the abatement of asbestos in another state may submit an application to the enforcement section for a license to act in that capacity in this state without repeating the requirements for training if he complies with all other licensing requirements set forth in NAC 618.850 to 618.986, inclusive, *and sections 26 to 33, inclusive, of this regulation* for his occupation.

**Sec. 137.** NAC 618.916 is hereby amended to read as follows:

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

1. **[Provide evidence of at least 2 years of experience working in projects for the abatement of asbestos;**
- 2.] Provide proof that he maintains a **[valid]** policy of industrial insurance as required by **[NAC 618.947;**
3. **Provide]** *chapters 616A to 617, inclusive, of NRS;*
2. *Except as otherwise provided in subsection 3, provide* evidence of the successful completion of an initial training course approved by the EPA for contractors **[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 contractors;

5.] ;

3. *If the certificate for the initial training course has expired, provide evidence of participation in a refresher training course approved by the EPA for contractors;*

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.] 6. 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 nonrefundable application fee of \$50; and

9.] *and*

7. Pay, at the time of application, a [refundable] license fee of \$200. [This fee will be prorated for the initial licensing year.]

**Sec. 138.** NAC 618.917 is hereby amended to read as follows:

618.917 [1. A] *Each initial training course , refresher training course and examination for contractors must [adequately address the following topics:*

(a) The physical characteristics of asbestos and materials containing asbestos, including:

(1) The identification of asbestos.

(2) Aerodynamic characteristics.

(3) Typical uses.

- (4) Physical appearance.
  - (5) A review of the assessment of hazards.
  - (6) A summary of options for controlling asbestos.
- (b) The potential health effects related to exposure to asbestos, including:
- (1) The nature of diseases related to asbestos.
  - (2) Routes of exposure.
  - (3) Dose-response relationships and the lack of a safe level of exposure.
  - (4) The synergistic effect between smoking cigarettes and exposure to asbestos.
  - (5) The latency periods for diseases related to asbestos.
  - (6) A discussion of the relationship of exposure to asbestos to asbestosis, lung cancer, mesothelioma and cancer of other organs.
- (c) Personal protective equipment, including:
- (1) Classes and characteristics of types of respirators.
  - (2) Limitations of respirators and their proper selection, inspection, donning, use, maintenance and storage procedures.
  - (3) Methods for field testing the sealing of the face piece (positive and negative pressure fitting tests).
  - (4) Testing procedures for qualitative and quantitative fitting of respirators.
  - (5) The variability between field and laboratory protection factors.
  - (6) Factors that alter the fit of a respirator.
  - (7) The components of a proper program for respiratory protection.
  - (8) The selection and use of personal protective clothing.

- (9) The use, storage and handling of nondisposable clothing.
  - (10) Regulations governing personal protective equipment.
- (d) Proper work practices for activities for the abatement of asbestos, including:
- (1) Descriptions of the proper construction and maintenance of barriers and decontamination enclosure systems.
  - (2) Positioning warning signs.
  - (3) Electrical and ventilation system lockout.
  - (4) Proper working techniques for minimizing the release of fibers.
  - (5) The use of wet methods.
  - (6) The use of equipment for negative pressure ventilation.
  - (7) The use of vacuums with high efficiency particulate air filtration.
  - (8) Proper procedures for cleaning up and disposing of waste.
  - (9) Proper practices for removal, encapsulation, enclosure and repair.
  - (10) Emergency procedures for sudden releases.
  - (11) Potential exposure situations.
  - (12) Procedures for the transportation and disposal of waste.
  - (13) Recommended and prohibited work practices.
  - (14) New techniques and methodologies related to abatement.
- (e) Personal hygiene, including:
- (1) Procedures for entering and exiting the work area.
  - (2) The use of showers.

(3) The avoidance of eating, drinking, smoking and chewing gum or tobacco in the work area.

(4) Potential exposures, including exposing members of the family.

(f) Hazards encountered during abatement activities and methods of dealing with them, including:

(1) Electrical hazards.

(2) Heat stress.

(3) Air contaminants other than asbestos.

(4) Fire and explosion hazards.

(5) Scaffold and ladder hazards.

(6) Slips.

(7) Trips and falls.

(8) Confined spaces.

(g) Medical monitoring, including:

(1) The pulmonary function test required by the Occupational Safety and Health Administration.

(2) Chest X-rays.

(3) Medical histories required for each employee.

(h) Procedures to determine the concentrations of airborne asbestos fibers, including:

(1) A description of aggressive sampling.

(2) Sampling equipment and methods.

(3) Reasons for monitoring air.

(4) Types of samples and interpretation of results, specifically from analyses performed by polarized light, phase-contrast and electron microscopy.

(i) Relevant federal, state and local regulatory requirements, including:

(1) The requirements of TSCA Title II.

(2) National Emission Standards for Hazardous Air Pollutants, Subparts A (General Provisions) and M (National Emission Standard for Asbestos) of Part 61 of Title 40 of the Code of Federal Regulations.

(3) Standards adopted by the Occupational Safety and Health Administration for permissible exposure to airborne concentrations of asbestos fibers and respiratory protection, 29 C.F.R. § 1910.134.

(4) Asbestos Construction Standards adopted by the Occupational Safety and Health Administration, 29 C.F.R. § 1926.58.

(5) EPA Worker Protection Rule, Subpart G of Part 763 of Title 40 of the Code of Federal Regulations.

(j) Programs for respiratory protection and medical surveillance.

(k) Issues relating to insurance and liability, including:

(1) Issues relating to contractors.

(2) Industrial insurance coverage and exclusions.

(3) Liabilities and defenses of third parties.

(4) Insurance coverage and exclusions.

(l) Record-keeping for projects for the abatement of asbestos, including:

(1) Records required by federal, state and local regulations.

(2) Records recommended for legal and insurance purposes.

(m) Supervisory techniques for activities for the abatement of asbestos, including supervisory practices to enforce required work practices and discourage unsafe work practices.

(n) Contract specifications.

(o) A review of the important elements of the training course.

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.] *comply with the requirements set forth in Appendix C of Subpart E of 40 C.F.R. Part 763.*

**Sec. 139.** NAC 618.918 is hereby amended to read as follows:

618.918 To maintain his license, a contractor must:

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 [;] *in accordance with 29 C.F.R. § 1926.33;*
3. Ensure that a supervisor who is properly trained and licensed pursuant to NAC 618.850 to 618.986, inclusive, *and sections 26 to 33, inclusive, of this regulation* remains present at the site [when] *if* any asbestos activity is being carried out as part of a project for the abatement of asbestos;
4. [Submit evidence] *Ensure* that all abatement workers and supervisors in his employ are properly trained 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. Establish and carry out 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 [;

11] , and sections 26 to 33, inclusive, of this regulation; and

10. 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.]

**Sec. 140.** NAC 618.920 is hereby amended to read as follows:

618.920 To be a licensed as a 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 an initial training course approved by the EPA for supervisors . [which consists of at least 4 training days.]
4. If the *certificate for the* initial training course required by subsection 3 [is completed more than 10 months before the date of the application,] *has expired*, 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.
5. Pay a licensing fee of \$50.

**Sec. 141.** NAC 618.921 is hereby amended to read as follows:

618.921 [1. An] *Each* initial training course , *refresher training course and examination* for supervisors must [adequately address the following topics:

- (a) The physical characteristics of asbestos and materials containing asbestos, including:
  - (1) The identification of asbestos.
  - (2) Aerodynamic characteristics.
  - (3) Typical uses.
  - (4) Physical appearance.
  - (5) A review of the assessment of hazards.
  - (6) A summary of options for controlling asbestos.
- (b) The potential health effects related to exposure to asbestos, including:
  - (1) The nature of diseases related to asbestos.
  - (2) Routes of exposure.

- (3) Dose-response relationships and the lack of a safe level of exposure.
  - (4) The synergistic effect between smoking cigarettes and exposure to asbestos.
  - (5) The latency periods for diseases related to asbestos.
- (c) Personal protective equipment, including:
- (1) Classes and characteristics of types of respirators.
  - (2) Limitations of respirators and their proper selection, inspection, donning, use, maintenance and storage procedures.
  - (3) Methods for field testing the sealing of the face piece (positive and negative pressure fitting tests).
  - (4) Testing procedures for qualitative and quantitative fitting of respirators.
  - (5) The variability between field and laboratory protection factors.
  - (6) Factors that alter the fit of a respirator.
  - (7) The components of a proper program for respiratory protection.
  - (8) The selection and use of personal protective clothing.
  - (9) The use, storage and handling of nondisposable clothing.
  - (10) Regulations governing personal protective equipment.
- (d) Proper work practices for activities for the abatement of asbestos, including:
- (1) Descriptions of the proper construction and maintenance of barriers and decontamination enclosure systems.
  - (2) Positioning warning signs.
  - (3) Electrical and ventilation system lockout.
  - (4) Proper working techniques for minimizing the release of fibers.

- (5) The use of wet methods.
  - (6) The use of equipment for negative pressure ventilation.
  - (7) The use of vacuums with high efficiency particulate air filtration.
  - (8) Proper procedures for cleaning up and disposing of waste.
  - (9) Proper practices for removal, encapsulation, enclosure and repair.
  - (10) Emergency procedures for sudden releases.
  - (11) Potential exposure situations.
  - (12) Procedures for the transportation and disposal of waste.
  - (13) Recommended and prohibited work practices.
  - (14) New techniques and methodologies related to abatement.
- (e) Personal hygiene, including:
- (1) Procedures for entering and exiting the work area.
  - (2) The use of showers.
  - (3) The avoidance of eating, drinking, smoking and chewing gum or tobacco in the work area.
  - (4) Potential exposures, including exposing members of the family.
- (f) Hazards encountered during abatement activities and methods of dealing with them, including:
- (1) Electrical hazards.
  - (2) Heat stress.
  - (3) Air contaminants other than asbestos.
  - (4) Fire and explosion hazards.

- (5) Scaffold and ladder hazards.
- (6) Slips.
- (7) Trips and falls.
- (8) Confined spaces.
- (g) Medical monitoring, including:
  - (1) The pulmonary function test required by the Occupational Safety and Health Administration.
  - (2) Chest X-rays.
  - (3) Medical histories required for each employee.
- (h) Procedures to determine the concentrations of airborne asbestos fibers, including:
  - (1) A description of aggressive sampling.
  - (2) Sampling equipment and methods.
  - (3) Reasons for monitoring air.
  - (4) Types of samples and interpretation of results, specifically from analyses performed by polarized light, phase-contrast and electron microscopy.
- (i) Relevant federal, state and local regulatory requirements, including:
  - (1) The requirements of TSCA Title II.
  - (2) National Emission Standards for Hazardous Air Pollutants, Subparts A (General Provisions) and M (National Emission Standard for Asbestos) of Part 61 of Title 40 of the Code of Federal Regulations.

(3) Standards adopted by the Occupational Safety and Health Administration for permissible exposure to airborne concentrations of asbestos fibers and respiratory protection, 29 C.F.R. § 1910.134.

(4) Asbestos Construction Standards adopted by the Occupational Safety and Health Administration, 29 C.F.R. § 1926.58.

(5) EPA Worker Protection Rule, Subpart G of Part 763 of Title 40 of the Code of Federal Regulations.

(j) Programs for respiratory protection and medical surveillance.

(k) Issues relating to insurance and liability, including:

(1) Issues relating to contractors.

(2) Industrial insurance coverage and exclusions.

(3) Liabilities and defenses of third parties.

(4) Insurance coverage and exclusions.

(l) Keeping records for projects for the abatement of asbestos, including:

(1) Records required by federal, state and local regulations.

(2) Records recommended for legal and insurance purposes.

(m) Supervisory techniques for activities for the abatement of asbestos, including supervisory practices to enforce required work practices and discourage unsafe work practices.

(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.] *comply with the requirements set forth in Appendix C of Subpart E of 40 C.F.R. Part 763.*

**Sec. 142.** NAC 618.923 is hereby amended to read as follows:

618.923 1. A person who has complied with all the requirements to be a supervisor, except for the requirements relating to experience, may apply to the enforcement section for permission to be a probationary supervisor.

2. An application made pursuant to subsection 1 must be made in writing and delivered to the chief at 400 [W.] *West* King Street, Suite 200, Carson City, Nevada 89703.

3. A person may act as a probationary supervisor for not more than 4 consecutive months.

4. Permission to act as a probationary supervisor is effective upon notification by the enforcement section and is limited to those situations where a project for the abatement of asbestos must have other licensed supervisors present to assist the probationary supervisory in organizing the work site and overseeing the project.

**Sec. 143.** NAC 618.924 is hereby amended to read as follows:

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

1. Be at least 18 years of age;

2. [Provide] *Except as otherwise provided in subsection 3, provide* evidence of the successful completion of an initial training course approved by the EPA for [abatement workers which consists of at least 3 training days;] *workers;*

3. If the *certificate for the* initial training course required by subsection 2 [is completed more than 10 months before the date of the application,] *has expired,* 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 workers; and

4. Pay a licensing fee of \$25.

**Sec. 144.** NAC 618.925 is hereby amended to read as follows:

618.925 [1. An] *Each* initial training course , *refresher training course and examination* for abatement workers must [adequately address the following topics:

(a) The physical characteristics of asbestos, including:

- (1) The identification of asbestos.
- (2) Aerodynamic characteristics.
- (3) Typical uses.
- (4) Physical appearance.
- (5) A summary of options for controlling asbestos.

(b) The potential health effects related to exposure to asbestos, including:

- (1) The nature of diseases related to asbestos.
- (2) Routes of exposure.
- (3) Dose-response relationships and the lack of a safe level of exposure.
- (4) The synergistic effect between smoking cigarettes and exposure to asbestos.
- (5) The latency periods for diseases related to asbestos.

(c) Personal protective equipment, including:

- (1) Classes and characteristics of types of respirators.
- (2) Limitations of respirators and their proper selection, inspection, donning, use, maintenance and storage procedures.

(3) Methods for field testing the sealing of the face piece (positive and negative pressure fitting tests).

(4) Testing procedures for qualitative and quantitative fitting of respirators.

(5) The variability between field and laboratory protection factors.

(6) Factors that alter the fit of a respirator.

(7) The components of a proper program for respiratory protection.

(8) The selection and use of personal protective clothing.

(9) The use, storage and handling of nondisposable clothing.

(10) Regulations governing personal protective equipment.

(d) Proper work practices for activities for the abatement of asbestos, including:

(1) Descriptions of the proper construction and maintenance of barriers and decontamination enclosure systems.

(2) Positioning warning signs.

(3) Electrical and ventilation system lockout.

(4) Proper working techniques for minimizing the release of fibers.

(5) The use of wet methods.

(6) The use of equipment for negative pressure ventilation.

(7) The use of vacuums with high efficiency particulate air filtration.

(8) Proper procedures for cleaning up and disposing of waste.

(9) Proper practices for removal, encapsulation, enclosure and repair.

(10) Emergency procedures for sudden releases.

(11) Potential exposure situations.

- (12) Procedures for the transportation and disposal of waste.
- (13) Recommended and prohibited work practices.
- (e) Personal hygiene, including:
  - (1) Procedures for entering and exiting the work area.
  - (2) The use of showers.
  - (3) The avoidance of eating, drinking, smoking and chewing gum or tobacco in the work area.
  - (4) Potential exposures, including exposing members of the family.
- (f) Hazards encountered during abatement activities and methods of dealing with them, including:
  - (1) Electrical hazards.
  - (2) Heat stress.
  - (3) Air contaminants other than asbestos.
  - (4) Fire and explosion hazards.
  - (5) Scaffold and ladder hazards.
  - (6) Slips.
  - (7) Trips and falls.
  - (8) Confined spaces.
- (g) Medical monitoring, including:
  - (1) The pulmonary function test required by the Occupational Safety and Health Administration.
  - (2) Chest X-rays.

(3) Medical histories required for each employee.

(h) Procedures to determine the concentrations of airborne asbestos fibers, including the methods by which personal air sampling is performed and the reasons for monitoring the air.

(i) Relevant federal, state and local regulatory requirements, with an emphasis on state regulations and the regulations of the EPA and the Occupational Safety and Health Administration relating to abatement workers.

(j) Programs for respiratory protection.

(k) A review of the important elements of the training course.

2. An abatement worker 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. If a worker answers less than 70 percent of the questions correctly, he may request the 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.] *comply with the requirements set forth in Appendix C of Subpart E of 40 C.F.R. Part 763.*

**Sec. 145.** NAC 618.931 is hereby amended to read as follows:

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

1. Provide [evidence of 1 year of experience as an inspector or inspector trainee;
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.] ; *or*

2. If the *certificate for the* initial training course required by subsection [2 is completed more than 10 months before the date of the application,] *1 has expired*, 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 inspectors.

**Sec. 146.** NAC 618.932 is hereby amended to read as follows:

618.932 [1. An] *Each* initial training course , *refresher training course and examination* for inspectors must [adequately address the following topics:

(a) Background information on asbestos, including:

- (1) The identification of asbestos.
- (2) Examples and a discussion of the uses and locations of asbestos in buildings.
- (3) The physical appearance of asbestos.

(b) The potential health effects related to exposure to asbestos, including:

- (1) The nature of diseases related to asbestos.
- (2) Routes of exposure.
- (3) Dose-response relationships and the lack of a safe level of exposure.
- (4) The synergistic effect between smoking cigarettes and exposure to asbestos.
- (5) The latency periods for diseases related to asbestos.
- (6) The relationship of exposure to asbestos to asbestosis, lung cancer, mesothelioma and

cancer of other organs.

(c) The functions, qualification and role of inspectors, including:

(1) Discussions of prior experiences and qualifications of inspectors and management planners.

(2) Discussions of the functions of an accredited inspector as compared to those of an accredited management planner.

(3) Discussions of the process of inspecting buildings and structures, the inventory of materials containing asbestos and physical assessments.

(d) The legal liabilities and defenses of inspectors, including:

(1) The responsibilities of inspectors and management planners.

(2) A discussion of comprehensive general liability policies.

(3) Policies based on claims made or occurrences.

(4) Clauses in policies concerning liability for pollution and the environment.

(5) State requirements for liability insurance.

(6) Bonds and the relationship of the availability of insurance to the availability of bonds.

(e) Understanding building systems, including:

(1) The interrelationship between building systems.

(2) An overview of common physical layouts of buildings.

(3) Types of heating, ventilation and air conditioning systems, the physical organization of such systems and where asbestos may be found in such systems.

(4) Types of mechanical systems used in buildings, the physical organization of such systems and where asbestos may be found in such systems.

(5) Inspecting electrical systems and appropriate safety precautions used therefor.

(6) Reading blueprints and as-built drawings.

(f) Relations between employees, occupants of the building and members of the general public, including:

- (1) Notifying employees' organizations of a proposed inspection.
  - (2) Posting signs to warn occupants.
  - (3) Dealing with occupants and members of the press.
  - (4) Scheduling inspections to minimize disruptions.
  - (5) Educating occupants of actions to be taken.
- (g) Preinspection planning and reviewing previous inspection records, including:
- (1) The scheduling of inspections and methods of obtaining access to buildings.
  - (2) Reviewing building records.
  - (3) Identifying probable homogeneous areas from blueprints or as-built drawings.
  - (4) Consulting with custodial or other building personnel.
  - (5) Reviewing previous inspection, sampling and abatement records.
  - (6) The role of the inspector in exclusions for previously performed inspections.
- (h) Inspecting for materials containing asbestos which are friable and nonfriable and assessing the condition of friable materials containing asbestos, including:
- (1) Procedures to follow in conducting visual inspections for such materials.
  - (2) Types of building materials which may contain asbestos.
  - (3) Touching materials to determine friability.
  - (4) Open return air plenums and their importance in heating, ventilation and air conditioning systems.
  - (5) Assessing damage, significant damage, potential damage and potential significant damage.

(6) Determining the total amount of materials suspected of containing asbestos and the percentage of such material to the total area.

(7) Determining the potential disturbance which may be caused by a material.

(8) Determining known or suspected causes of damage or significant damage.

(9) Using deterioration as an assessment factor.

(i) Bulk sampling and the documentation of asbestos in schools, including:

(1) A detailed discussion of the Simplified Sampling Scheme for Friable Surfacing Materials, EPA 560/5-85-030a, October 1985.

(2) Techniques to ensure sampling in a randomly distributed manner for other than friable surfacing materials.

(3) Sampling nonfriable materials containing asbestos.

(4) Techniques for bulk sampling.

(5) Sampling equipment to be used.

(6) Patching or otherwise repairing damage done in sampling.

(7) An inspector's repair kit.

(8) A discussion of polarized light microscopy.

(9) Choosing an accredited laboratory to analyze bulk samples.

(10) Procedures for controlling and assuring quality.

(j) Respiratory protection and personal protective equipment, including:

(1) Classes and characteristics of types of respirators.

(2) Limitations of respirators and their proper selection, inspection, donning, use, maintenance and storage procedures.

(3) Methods for field testing the sealing of the face piece (positive and negative pressure fitting tests).

(4) Testing procedures for qualitative and quantitative fitting of respirators.

(5) The variability between field and laboratory protection factors.

(6) Factors that alter the fit of a respirator.

(7) The components of a proper program for respiratory protection.

(8) The selection and use of personal protective clothing.

(9) The use, storage and handling of nondisposable clothing.

(k) Keeping records and writing the inspection report, including:

(1) Labeling samples and identifying the sample with its location.

(2) Recommendations for labeling samples.

(3) Maintaining a detailed inventory of materials containing asbestos.

(4) Photographing selected areas and examples of materials containing asbestos.

(5) Information which must be included in the management plan by TSCA Title II, § 203(i)(1).

(l) A review of regulatory requirements, including:

(1) The EPA Worker Protection Rule, Subpart G of Part 763 of Title 40 of the Code of Federal Regulations.

(2) TSCA Title II.

(3) The Asbestos Construction Standard of the Occupational Safety and Health Administration, 29 C.F.R. § 1926.58.

(4) The requirements for protecting the respiratory system adopted by the Occupational Safety and Health Administration in 29 C.F.R. § 1910.134.

(5) Friable Asbestos-Containing Material in Schools Rule, Subpart F of Part 763 of Title 40 of the Code of Federal Regulations.

(6) Applicable state and local regulations.

(7) The differences in federal and state requirements, how they apply and the effects, if any, on public and private schools.

(m) A field trip, including:

(1) A walk-through inspection.

(2) A discussion of methods of gathering information and determining the location of samples at the inspection site.

(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.] *comply with the requirements set forth in Appendix C of Subpart E of 40 C.F.R. Part 763.*

**Sec. 147.** NAC 618.933 is hereby amended to read as follows:

618.933 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 an inspection for the owner of a building or structure to determine the condition of material that has been designated as material presumed to contain asbestos.*

**Sec. 148.** NAC 618.935 is hereby amended to read as follows:

618.935 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 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 inspectors and *an initial training course approved by the EPA for* management planners **[which consists of at least 5 training days; and**
  - 3.] **;** *or*
2. If the *certificate for either of the* initial training **[course]** *courses* required by subsection **[2 is completed more than 10 months before the date of the application,]** *1 has expired,* 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 inspectors **[and]** *or a refresher training course approved by the EPA for* management planners **[.] , as applicable.**

**Sec. 149.** NAC 618.936 is hereby amended to read as follows:

618.936 [1. An] *Each* initial training course , *refresher training course and examination*

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.
- (3) Establishing work priorities.
- (4) Protecting occupants of buildings.

(b) The evaluation and interpretation of the results of surveys, including:

(1) A review of the requirements established in TSCA Title II, § 203(i)(1) for inspection and management plans.

(2) Summarized field data and laboratory results.

(3) A comparison of the field inspector's data sheet and the laboratory results and survey of the site.

(c) The assessment of hazards, including:

(1) The differences between a physical assessment and the assessment of a hazard.

(2) An explanation of significant damage, potential damage and potential significant damage.

(3) The use of a description code for the assessment of materials containing asbestos.

(4) The assessment of friable materials containing asbestos.

(5) The relationship of accessibility, sources of vibration, use of adjoining space, air plenums and other factors specific to the assessment of hazards.

(d) The liability of management planners, including:

- (1) Insurance issues relating to planners.
- (2) Liabilities associated with interim control measures, in-house maintenance, repairs and removals.
- (3) The use of results from previously performed inspections.
- (e) The evaluation and selection of control options, including:
  - (1) An overview of encapsulation, enclosure, interim operations and maintenance and removal.
  - (2) The advantages and disadvantages of each method.
  - (3) Response actions described by the use of a decision tree or other appropriate method.
  - (4) Work practices for each response action.
  - (5) The staging and prioritizing of work in vacant and occupied buildings.
  - (6) The need for containment barriers and decontamination enclosure systems in response actions.
- (f) The role of other professionals, including:
  - (1) The use of industrial hygienists, engineers and architects in developing technical specifications for response actions.
  - (2) Requirements for architectural sign-off of the plans.
  - (3) The team approach to designing high-quality job specifications.
- (g) Developing an operations and maintenance plan, including:
  - (1) Determining the purpose of the plan.
  - (2) A discussion of applicable EPA guidance documents.
  - (3) Actions which should be taken by the custodial staff.

- (4) Proper cleaning procedures.
- (5) Steam cleaning and high efficiency particulate aerosol vacuuming.
- (6) Reducing the disturbance of material containing asbestos.
- (7) Scheduling or canceling renovation in areas with materials containing asbestos.
- (8) Maintenance of boiler rooms.
- (9) The disposal of material containing asbestos.
- (10) In-house procedures for material containing asbestos.
- (11) Bridging and penetrating encapsulants.
- (12) Pipe fittings.
- (13) Metal sleeves.
- (14) Polyvinyl chloride, canvas and wet wraps.
- (15) Muslin with straps.
- (16) Fiber mesh cloth.
- (17) Mineral wool and insulating cement.
- (18) A discussion of protection programs for employees and staff training.
- (19) A case study in developing and carrying out an operations and maintenance plan, including problems experienced in carrying it out.

(h) A review of applicable regulatory requirements, including:

- (1) The Asbestos Construction Standard established by the Occupational Safety and Health Administration, 29 C.F.R. § 1926.58.

(2) The National Emission Standard for Hazardous Air Pollutants, Subparts A (General Provisions) and M (National Emission Standard for Asbestos) of Part 61 of Title 40 of the Code of Federal Regulations.

(3) EPA Worker Protection Rule, Subpart G of Part 763 of Title 40 of the Code of Federal Regulations.

(4) TSCA Title II.

(5) Applicable state regulations.

(i) Record-keeping for the management planner, including:

(1) The use of a field inspector's data sheet and laboratory results.

(2) On-going record-keeping as a means of tracking the disturbance of asbestos.

(3) Procedures for record-keeping.

(j) Assembling and submitting the management plan, including:

(1) Requirements for the plan established in TSCA Title II, § 203(i)(1).

(2) The use of a management plan as a planning tool.

(k) Financing abatement activities, including:

(1) Economic analysis and cost estimates.

(2) The development of cost estimates.

(3) An analysis of present costs of abatement and future operations and maintenance costs.

(4) Grants and loans available under the Asbestos School Hazard Abatement Act, Pub. L. 98-377, 98 Stat. 1287, Title V, Aug. 11, 1984.

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.] *comply with the requirements set forth in Appendix C of Subpart E of 40 C.F.R. Part 763.*

**Sec. 150.** NAC 618.938 is hereby amended to read as follows:

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

1. Provide evidence [:

(a) *Of] of* at least 1 year of experience as *[a project designer;*

(b) *Of* at least 2 years of experience as a monitor or management planner, or both; 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]* *a consultant or supervisor; and*

2. *Provide* evidence of *[the] :*

(a) *The* successful completion of an initial training course approved by the EPA for project designers *[which consists of at least 3 training days; and*

3.] ; *or*

(b) If the *certificate for the* initial training course required by subsection 2 *[is completed more than 10 months before the date of the application,] has expired,* 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 designers.*

**Sec. 151.** NAC 618.939 is hereby amended to read as follows:

618.939 [1. A] *Each* training course , *refresher training course and examination* for project designers must [adequately address the following topics:

(a) Background information on asbestos, including:

- (1) The identification of asbestos.
- (2) Examples and a discussion of the uses and locations of asbestos in buildings.
- (3) The physical appearance of asbestos.

(b) The potential health effects related to exposure to asbestos, including:

- (1) The nature of diseases related to asbestos.
- (2) Routes of exposure.
- (3) Dose-response relationships and the lack of a safe level of exposure.
- (4) The synergistic effect between smoking cigarettes and exposure to asbestos.
- (5) The latency periods for diseases related to asbestos.
- (6) A discussion of the relationship of exposure to asbestos to asbestosis, lung cancer, mesothelioma and cancer of other organs.

(c) An overview of abatement construction projects, including:

- (1) Abatement as a part of a renovation project.
- (2) Requirements established by the Occupational Safety and Health Administration in 29 C.F.R. § 1926.58 for notifying other contractors on sites at which more than one employer is working.

(d) Design specifications for safety systems, including:

- (1) The construction and maintenance of containment barriers and decontamination enclosure systems.

- (2) The positioning of warning signs.
  - (3) Electrical and ventilation system lockout.
  - (4) Proper working techniques for minimizing the release of fibers.
  - (5) Procedures for entering and exiting the work area.
  - (6) The use of wet methods.
  - (7) The use of negative pressure exhaust ventilation equipment.
  - (8) The use of high efficiency particulate aerosol vacuums.
  - (9) Proper methods for cleaning-up and disposing of asbestos.
  - (10) Work practices as they apply to encapsulation, enclosure and repair.
  - (11) The use of glove bags and a demonstration of the use of glove bags.
- (e) A field trip, including:
- (1) A visit to an abatement site or other suitable building site.
  - (2) Discussions at the site regarding abatement design.
  - (3) An inspection of the building.
  - (4) A discussion after the inspection.
- (f) Personal protective equipment, including:
- (1) Classes and characteristics of types of respirators.
  - (2) Limitations of respirators and their proper selection, inspection, donning, use, maintenance and storage procedures.
  - (3) Methods for field testing the sealing of the face piece (positive and negative pressure fitting tests).
  - (4) Testing procedures for qualitative and quantitative fitting of respirators.

- (5) The variability between field and laboratory protection factors.
- (6) Factors that alter the fit of a respirator.
- (7) The components of a proper program for respiratory protection.
- (8) The selection and use of personal protective clothing.
- (9) The use, storage and handling of nondisposable clothing.
- (10) Regulations governing personal protective equipment.

(g) Hazards encountered during abatement activities and methods of dealing with them,

including:

- (1) Electrical hazards.
- (2) Heat stress.
- (3) Air contaminants other than asbestos.
- (4) Fire and explosion hazards.

(h) Fiber aerodynamics and control, including:

- (1) The aerodynamic characteristics of asbestos fibers.
- (2) The importance of proper containment barriers.
- (3) Settling time for asbestos fibers.
- (4) Wet methods in abatement.
- (5) Aggressive air monitoring following abatement.
- (6) The use of aggressive air movement and negative pressure exhaust ventilation as a

method of cleaning-up.

(i) Designing abatement solutions, including:

- (1) Discussions of methods of removal, enclosure and encapsulation.

- (2) The disposal of asbestos waste.
- (j) Budgets and estimating costs, including:
  - (1) The development of cost estimates.
  - (2) A comparison of present costs of abatement and future operations and maintenance costs.
  - (3) Establishing priorities for abatement jobs to reduce cost.
- (k) Writing abatement specifications, including:
  - (1) A comparison of means and methods specifications and performance specifications.
  - (2) The design of abatement in occupied buildings.
  - (3) The modification of guide specifications to a particular building.
  - (4) Health and medical considerations for workers and occupants of buildings.
  - (5) The replacement of material containing asbestos with substitutes which do not contain asbestos.
  - (6) The clearance of the work area after abatement.
  - (7) Air monitoring for clearance.
- (l) Preparing abatement drawings, including:
  - (1) The use of as-built drawings.
  - (2) The use of inspection photographs and onsite reports.
  - (3) Particular problems in abatement drawings.
- (m) The preparation and administration of contracts.
- (n) The liability of project designers and their defenses, including:
  - (1) Insurance considerations.

- (2) Bonds.
- (3) Clauses which provide immunity from liability.
- (4) The use of liability insurance.
- (5) Policies based on claims made or occurrences.
- (o) The replacement of asbestos with substitutes which do not contain asbestos.
- (p) The role of other consultants, including:
  - (1) The development of technical specification sections by industrial hygienists or engineers.
  - (2) Designing abatement procedures using a multidisciplinary team.
- (q) Special procedures for occupied buildings, including:
  - (1) Special design procedures required for such buildings.
  - (2) Educating occupants.
  - (3) Recommendations for extra monitoring.
  - (4) Staging work to minimize exposing occupants to asbestos.
  - (5) Scheduling renovation to minimize exposure.
- (r) Relevant federal, state and local regulatory requirements, including:
  - (1) The requirements of TSCA Title II.
  - (2) National Emission Standards for Hazardous Air Pollutants, Subparts A (General Provisions) and M (National Emission Standard for Asbestos) of Part 61 of Title 40 of the Code of Federal Regulations.

(3) Standards adopted by the Occupational Safety and Health Administration for permissible exposure to airborne concentrations of asbestos fibers and respiratory protection, 29 C.F.R. § 1910.134.

(4) EPA Worker Protection Rule, Subpart G of Part 763 of Title 40 of the Code of Federal Regulations.

(5) Asbestos Construction Standards adopted by the Occupational Safety and Health Administration, 29 C.F.R. § 1926.58.

(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.] *comply with the requirements set forth in Appendix C of Subpart E of 40 C.F.R. Part 763.*

**Sec. 152.** NAC 618.941 is hereby amended to read as follows:

618.941 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 or monitor trainee; or

(b) 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 [which consists of at least 4 training days;

3.] ; *or*

2. If the *certificate for the* initial training course required by subsection [2 is completed more than 10 months before the date of the application,] *1 has expired*, 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 . [; and

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

**Sec. 153.** NAC 618.942 is hereby amended to read as follows:

618.942 [1. An] *Each* initial training course , *refresher training course and examination* for monitors must [adequately address the following topics:

(a) The physical characteristics of asbestos and materials containing asbestos, including:

- (1) The identification of asbestos.
- (2) Aerodynamic characteristics.
- (3) Typical uses.
- (4) Physical appearance.
- (5) A review of the assessment of hazards.
- (6) A summary of options for controlling asbestos.

(b) The potential health effects related to exposure to asbestos, including:

- (1) The nature of diseases related to asbestos.
- (2) Routes of exposure.
- (3) Dose-response relationships and the lack of a safe level of exposure.
- (4) The synergistic effect between smoking cigarettes and exposure to asbestos.
- (5) The latency periods for diseases related to asbestos.

(c) Personal protective equipment, including:

(1) Classes and characteristics of types of respirators.

(2) Limitations of respirators and their proper selection, inspection, donning, use, maintenance and storage procedures.

(3) Methods for field testing the sealing of the face piece (positive and negative pressure fitting tests).

(4) Testing procedures for qualitative and quantitative fitting of respirators.

(5) The variability between field and laboratory protection factors.

(6) Factors that alter the fit of a respirator.

(7) The components of a proper program for respiratory protection.

(8) The selection and use of personal protective clothing.

(9) The use, storage and handling of nondisposable clothing.

(10) Regulations governing personal protective equipment.

(d) Proper work practices for activities for the abatement of asbestos, including:

(1) Descriptions of the proper construction and maintenance of barriers and decontamination enclosure systems.

(2) Positioning warning signs.

(3) Electrical and ventilation system lockout.

(4) Proper working techniques for minimizing the release of fibers.

(5) The use of wet methods.

(6) The use of equipment for negative pressure ventilation.

(7) The use of vacuums with high efficiency particulate air filtration.

- (8) Proper procedures for cleaning up and disposing of waste.
  - (9) Proper practices for removal, encapsulation, enclosure and repair.
  - (10) Emergency procedures for sudden releases.
  - (11) Potential exposure situations.
  - (12) Procedures for the transportation and disposal of waste.
  - (13) Recommended and prohibited work practices.
  - (14) New techniques and methodologies related to abatement.
- (e) Personal hygiene, including:
- (1) Procedures for entering and exiting the work area.
  - (2) The use of showers.
  - (3) The avoidance of eating, drinking, smoking and chewing gum or tobacco in the work area.
  - (4) Potential exposures, including exposing members of the family.
- (f) Hazards encountered during abatement activities and methods of dealing with them, including:
- (1) Electrical hazards.
  - (2) Heat stress.
  - (3) Air contaminants other than asbestos.
  - (4) Fire and explosion hazards.
  - (5) Scaffold and ladder hazards.
  - (6) Slips.
  - (7) Trips and falls.

(8) Confined spaces.

(g) Medical monitoring, including:

(1) The pulmonary function test required by the Occupational Safety and Health Administration.

(2) Chest X-rays.

(3) Medical histories required for each employee.

(h) Procedures to determine the concentrations of airborne asbestos fibers, including:

(1) A description of aggressive sampling.

(2) Sampling equipment and methods.

(3) Reasons for monitoring air.

(4) Types of samples and interpretation of results, specifically from analyses performed by polarized light, phase-contrast and electron microscopy.

(i) Relevant federal, state and local regulatory requirements, including:

(1) The requirements of TSCA Title II.

(2) National Emission Standards for Hazardous Air Pollutants, Subparts A (General Provisions) and M (National Emission Standard for Asbestos) of Part 61 of Title 40 of the Code of Federal Regulations.

(3) Standards adopted by the Occupational Safety and Health Administration for permissible exposure to airborne concentrations of asbestos fibers and respiratory protection, 29 C.F.R. § 1910.134.

(4) Asbestos Construction Standards adopted by the Occupational Safety and Health Administration, 29 C.F.R. § 1926.58.

(5) EPA Worker Protection Rule, Subpart G of Part 763 of Title 40 of the Code of Federal Regulations.

(j) Programs for respiratory protection and medical surveillance.

(k) Issues relating to insurance and liability, including:

(1) Issues relating to contractors.

(2) Industrial insurance coverage and exclusions.

(3) Liabilities and defenses of third parties.

(4) Insurance coverage and exclusions.

(l) Keeping records for projects for the abatement of asbestos, including:

(1) Records required by federal, state and local regulations.

(2) Records recommended for legal and insurance purposes.

(m) Supervisory techniques for activities for the abatement of asbestos, including supervisory practices to enforce required work practices and discourage unsafe work practices.

(n) Contract specifications.

(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.] *comply with the requirements set forth in Appendix C of Subpart E of 40 C.F.R. Part 763.*

**Sec. 154.** NAC 618.950 is hereby amended to read as follows:

618.950 Unless specifically exempted by the provisions of NAC 618.850 to 618.986, inclusive, *and sections 26 to 33, inclusive, of this regulation*, the provisions of 29 C.F.R. Part 1910 and 29 C.F.R. Part 1926 apply to all activities for the abatement of asbestos.

**Sec. 155.** NAC 618.951 is hereby amended to read as follows:

618.951 *1.* Activities for the abatement of asbestos involving vinyl asbestos tile, sheet floor covering, exterior asbestos roofing material, exterior asbestos siding, *drywall joint compound and texturizing materials* and other nonfriable materials containing asbestos are exempt from the requirements of NAC 618.850 to 618.986, **[exclusive.]** *inclusive, and sections 26 to 33, inclusive, of this regulation.*

*2.* To remain eligible for **[this exemption,]** *the exemption set forth in subsection 1, the activities must be performed in accordance with 29 C.F.R. § 1910.1001 and 29 C.F.R. § 1926.1101, and* practices must be maintained to ensure that materials containing asbestos are:

**[1.] (a)** Not sanded, power sawed or drilled;

**[2.] (b)** Removed in the largest sections practicable and carefully lowered to the ground;

**[3.] (c)** Handled carefully to minimize breakage throughout removal, handling and

transportation to an authorized disposal site; and

**[4.] (d)** Wetted before removal and during subsequent handling, to the extent practicable.

**Sec. 156.** NAC 618.952 is hereby amended to read as follows:

618.952 *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, inclusive, *and sections 26 to 33, inclusive, of this regulation*, 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] *400 West King Street, Suite 200*, Carson City [.] , *Nevada 89703*. 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] *15* days after receiving a written petition. The order must be signed by the chief.

4. A declaratory order may be appealed to the administrator within [30] *15* days after it is issued. An order not appealed within that time is final.

**Sec. 157.** NAC 618.955 is hereby amended to read as follows:

618.955 A contractor who engages in an emergency asbestos project shall:

- 1. Notify the enforcement section of the project by telephone at (702) [885-5240,] *687-5240* 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.

**Sec. 158.** NAC 618.956 is hereby amended to read as follows:

618.956 1. Before an area of a structure or building where a project for the abatement of asbestos was performed is allowed to be reoccupied, the contractor shall obtain final clearance

from a monitor. The monitor may not be an employee of the contractor or the owner of the building or structure, unless a variance is granted by the division.

2. After all the materials containing asbestos have been removed and the work area 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 [\[Appendix\] Appendices A and B](#) of 29 C.F.R. § [\[1926.58.\] 1926.1101 or Appendix A of Subpart E of 40 C.F.R. Part 763](#). These results are required on all samples taken before the containment barrier and exhaust air filtration system are removed. If [\[such\] those](#) results are not obtained, the area 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 division. 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 deliver a copy of all reports and documents, including the final clearance, to the contractor and the enforcement section.

*8. The monitor may determine the accuracy of a phase contrast microscopy final clearance sample that is more than 0.01 fibers per cubic centimeter of air by reanalyzing the sample by transmission electron microscopy.*

*9. The monitor shall ensure that the area of a structure or building where a project for the abatement of asbestos was performed complies with the applicable requirements for final clearance set forth in Appendix A of Subpart E of 40 C.F.R. Part 763 and is safe to be reoccupied.*

**Sec. 159.** NAC 618.958 is hereby amended to read as follows:

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

**Sec. 160.** NAC 618.960 is hereby amended to read as follows:

618.960 1. Before a building or structure which contains friable materials containing asbestos may be demolished, the asbestos must be removed pursuant to the requirements [of NAC 618.959.] *set forth in 29 C.F.R. § 1926.1101 and section 33 of this regulation.*

2. *Before a building or structure that was constructed before January 1, 1981, may be demolished, a licensed inspector must visually inspect the building or structure to determine whether the friable material containing asbestos has been removed. The inspector shall provide written proof of his findings to the contractor responsible for demolition and the owner of the building or structure.*

3. 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.

**Sec. 161.** NAC 618.961 is hereby amended to read as follows:

618.961 [1.] *Surfacing material or thermal system insulation in a building constructed before January 1, 1981, shall be deemed material presumed to contain asbestos unless the presumption is rebutted by a licensed inspector in accordance with the requirements of section 33 of this regulation.* Before the commencement of a renovation project that will disturb [friable structural fire-proofing, 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.

2. If any substance is found to be or contain asbestos, or is 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.] *surfacing material or thermal system insulation that is material presumed to contain asbestos, the material or insulation must be removed in accordance with the provisions of 29 C.F.R. § 1910.1001, 29 C.F.R. § 1926.1101(k)(4) and section 33 of this regulation.*

**Sec. 162.** NAC 618.970 is hereby amended to read as follows:

618.970 1. If the enforcement section determines that [any person licensed pursuant to NAC 618.850 to 618.986, inclusive,] *a licensee*, other than an abatement worker, has violated any of the provisions of NAC 618.850 to 618.986, inclusive, *and sections 26 to 33, inclusive, of this regulation*, or any of the provisions of NRS 618.780, 618.790, 618.820 or 618.825, the enforcement section may:

(a) For a first violation, impose an administrative fine of not more than \$15,000.

(b) For a second or subsequent violation:

(1) Impose an administrative fine of not more than \$25,000;

(2) Revoke the license of the licensee; and

(3) Require the licensee to fulfill certain training or educational requirements in order to have his license reinstated.

2. The enforcement section may take disciplinary action against any licensee at a project for the abatement of asbestos who is jointly responsible for any single violation.

**Sec. 163.** NAC 618.975 is hereby amended to read as follows:

618.975 1. The enforcement section may suspend, modify or revoke any license issued pursuant to NAC 618.850 to 618.986, inclusive, *and sections 26 to 33, inclusive, of this regulation*, if it finds that for any reasons the protection of the public health requires such action.

2. For the purposes of this section, the violation of any federal or state law or regulation governing activities for the abatement of asbestos constitutes a danger to the public health requiring immediate action.

**Sec. 164.** NAC 618.976 is hereby amended to read as follows:

618.976 If the enforcement section intends to suspend, modify or revoke a license issued pursuant to NAC 618.850 to 618.986, inclusive, *and sections 26 to 33, inclusive, of this regulation*, the enforcement section will notify the licensee of the suspension, modification or revocation by:

1. Delivering a notice of suspension, modification or revocation to the licensee by certified mail at the address indicated on his application for a license;
2. Enclosing with the notice of suspension, modification or revocation:
  - (a) A statement indicating the division's legal authority and jurisdiction to issue the suspension, modification or revocation; and
  - (b) A statement of the reasons for the proposed action, including a citation of the applicable regulations supporting the action; and
3. Stating the effective date of the suspension, modification or revocation, the procedures for bringing a contest and the procedures for an appeal.

**Sec. 165.** NAC 618.979 is hereby amended to read as follows:

618.979 1. The enforcement section may summarily suspend any license issued pursuant to NAC 618.850 to 618.986, inclusive, *and sections 26 to 33, inclusive, of this regulation* if it finds that for any reasons the protection of the public health requires such action.

2. For the purposes of this section, the violation of any federal or state law or regulation governing activities for the abatement of asbestos constitutes a danger to the public health requiring immediate action.

**Sec. 166.** NAC 618.980 is hereby amended to read as follows:

618.980 1. If the enforcement section intends to summarily suspend a license issued pursuant to NAC 618.850 to 618.986, inclusive, *and sections 26 to 33, inclusive, of this regulation*, the enforcement section will notify the licensee of the summary suspension by:

(a) Delivering a notice of the summary suspension to the licensee by certified mail at the address indicated on his application for a license; and

(b) Enclosing with the notice of summary suspension:

(1) A statement indicating the division's legal authority and jurisdiction to issue the summary suspension; and

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

2. The notice of the summary suspension must:

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

(b) Inform the licensee that he is entitled to contest the summary suspension; and

(c) State that the enforcement section will hold a hearing within 10 days after the receipt of any contest.

3. Upon the receipt of a notice of summary suspension, the licensee shall immediately cease all operations which are the subject of the suspension and remove all employees from the abatement area.

**Sec. 167.** NAC 618.983 is hereby amended to read as follows:

618.983 A summary suspension becomes a permanent suspension if the licensee:

1. Does not contest the summary suspension; or
2. Fails to appeal the decision of the chief or the administrator pursuant to the provisions of NAC 618.850 to 618.986, inclusive, *and sections 26 to 33, inclusive, of this regulation* or the provisions of chapter 233B of NRS governing judicial review.

**Sec. 168.** NAC 618.986 is hereby amended to read as follows:

618.986 The provisions of NAC 618.970 to 618.985, inclusive, *and sections 30 to 33, inclusive, of this regulation*, do not prohibit or limit the powers of the administrator to post an emergency order pursuant to NRS 618.545 and to restrain immediately any condition or practice at any location where an activity for the abatement of asbestos is being conducted if the license of a licensee is not otherwise affected.

**Sec. 169.** NAC 618.013, 618.030, 618.044, 618.064, 618.129, 618.156, 618.195, 618.244, 618.345, 618.347, 618.403, 618.413, 618.422, 618.458, 618.460, 618.492, 618.498, 618.5181, 618.5227, 618.568, 618.6301, 618.6402, 618.6407, 618.660, 618.666, 618.855, 618.858, 618.859, 618.8625, 618.865, 618.868, 618.871, 618.872, 618.873,

618.8735, 618.876, 618.877, 618.878, 618.880, 618.901, 618.905, 618.919, 618.934, 618.944, 618.947, 618.957, 618.959, 618.962 and 618.963 are hereby repealed.

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## TEXT OF REPEALED SECTIONS

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**618.013 “Administrator” defined.** “Administrator” means the administrator of the division of industrial relations of the department of business and industry.

**618.030 “Chief” defined.** “Chief” means the chief administrative officer of the enforcement section.

**618.044 “Enforcement section” defined.** “Enforcement section” means the occupational safety and health enforcement section of the division of industrial relations of the department of business and industry.

**618.064 “Inspector for an owner or user” defined.** “Inspector for an owner or user” means an inspector who:

1. Holds a valid commission issued by the national board as an inspector for an owner or user authorized to inspect his own boilers and pressure vessels;
2. Has passed the examination prescribed by the enforcement section; and
3. Is continuously employed as an inspector by an owner or user authorized by the enforcement section to inspect his own boilers and pressure vessels.

**618.129 “Special inspector” defined.** “Special inspector” means an inspector who holds a certificate of competency issued by the enforcement section and who is regularly employed or whose services are contracted for by an insurance company authorized to insure against loss from explosion of boilers or pressure vessels in this state.

**618.156 Certification of certain employees.**

1. The chief may issue a certificate of competency and a card for identification to an inspector who holds a commission from the national board and who is employed:

(a) By the enforcement section;

(b) Full time, or whose services are contracted for, by an authorized inspection entity which is authorized to insure against loss from explosion of boilers and pressure vessels in Nevada; or

(c) Continuously by a person who operates boilers or pressure vessels in Nevada and has been authorized by the enforcement section to inspect his own pressure vessels, if the applicant:

(1) Has satisfactorily passed the required examination; or

(2) Holds a current commission or certificate of competency from a state which has a standard substantially the same as that of Nevada.

2. The request for the certificate of competency and card for identification must be:

(a) Made by the inspector’s employer;

(b) On forms provided by the enforcement section; and

(c) Accompanied by a copy of the applicant’s commission and card for identification issued by the national board.

3. The certificate of competency and the card for identification issued by the chief must be returned to the enforcement section when the inspector to whom it was issued is no longer employed by the person employing him when the certificate and card were issued.

**618.195 Inspection by owner or user.**

1. Any owner or user who operates a boiler or pressure vessel who desires to inspect his own boiler or pressure vessel must file a request with the enforcement section.

2. The request must include:

- (a) The name of the owner or user and his principal address in this state;
- (b) The name and address of the person who will supervise the inspection; and
- (c) Certification that the inspections meet the requirements of the national board.

3. Each owner or user who is approved by the enforcement section to inspect his boilers and pressure vessels shall:

- (a) Use only authorized personnel to conduct the inspection;
- (b) Retain on file at the location where the equipment is inspected a record or copy of each report of the inspection signed by the inspector;
- (c) Deliver to the enforcement section and to each person who operates the pressure vessel a report of each inspection including any requirements imposed by or recommendations made by the inspector for the operation of the pressure vessel;
- (d) Immediately notify the enforcement section of any pressure vessel which does not meet the requirements for safety;
- (e) Maintain in this state for the examination of the enforcement section during business hours, a record of inspections which includes:

(1) A list of each pressure vessel required to be inspected with each pressure vessel's number and any description necessary for identification; and

(2) The date of the last inspection of each pressure vessel and the approximate date for the next inspection; and

(f) Notify the enforcement section within 30 days after a change is made in the person authorized to supervise an inspection.

**618.244 Repairs by fusion welding.** Repairs by fusion welding may not be made to the pressure parts of a boiler constructed of cast iron.

**618.345 "Division" defined.** "Division" means the division of industrial relations of the department of business and industry.

**618.347 "Enforcement section" defined.** "Enforcement section" means the occupational safety and health enforcement section of the division.

**618.403 "Administrator" defined.** "Administrator" means the administrator of the division of industrial relations of the department of business and industry.

**618.413 "Chief" defined.** "Chief" means the chief administrative officer of the enforcement section.

**618.422 "Enforcement section" defined.** "Enforcement section" means the occupational safety and health enforcement section of the division of industrial relations of the department of business and industry.

**618.458 Operating permits: Number issued by enforcement section; location.**

1. An operating permit will list the number issued by the enforcement section for the elevator, dumbwaiter, escalator, moving walk or related equipment.

2. The required permit must be kept at the same location as the elevator, dumbwaiter, escalator, moving walk or related equipment.

**618.460 Operating permits: Serial number of equipment; location.**

1. Operating permits must list the serial number of the elevator, dumbwaiter, escalator, moving walk or related equipment for which it is issued as required in NAC 618.478.

2. The required permit must be located on the premises.

**618.492 “Chief” defined.** “Chief” means the chief administrative officer of the enforcement section.

**618.498 “Enforcement section” defined.** “Enforcement section” means the occupational safety and health enforcement section of the division of industrial relations of the department of business and industry.

**618.5181 “Enforcement section” defined.** “Enforcement section” means the occupational safety and health enforcement section of the division of industrial relations of the department of business and industry.

**618.5227 Adoption of standards by reference.** The division of industrial relations of the department of business and industry hereby adopts by reference the provisions of 49 C.F.R. § 173.239a as it existed on July 1, 1990. The volume containing this section is available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, at a cost of \$27.

**618.568 Reports of fatalities and major accidents.** A report of a fatal accident to an employee or of an accident which results in hospitalization of five or more employees must contain statements:

1. Describing the circumstances of the accident;
2. Giving the number of fatalities, if any; and
3. Describing the extent of any injuries.

**618.6301 “Administrator” defined.** “Administrator” means the administrator of the division of industrial relations of the department of business and industry.

**618.6402 “Chief” defined.** “Chief” means the chief administrative officer of the enforcement section.

**618.6407 “Enforcement section” defined.** “Enforcement section” means the occupational safety and health enforcement section of the division of industrial relations of the department of business and industry.

**618.660 “Chief” defined.** “Chief” means the chief administrative officer of the enforcement section.

**618.666 “Enforcement section” defined.** “Enforcement section” means the enforcement section of the division of industrial relations of the department of business and industry.

**618.855 “Administrator” defined.** “Administrator” has the meaning ascribed to it in NRS 618.029.

**618.858 “Alteration” defined.** “Alteration” means any act which is intended to change or modify the condition of any structure or material.

**618.859 “Amended water” defined.** “Amended water” means water to which a surfactant has been added to improve penetration and reduce the release of fibers.

**618.8625 “Chief” defined.** “Chief” means the chief administrative officer of the enforcement section.

**618.865 “Decontamination enclosure system” defined.** “Decontamination enclosure system” means a series of connected rooms separated from each other by air locks, for the cleaning of workers, materials or equipment, before they are removed from a containment area.

**618.868 “Division” defined.** “Division” has the meaning ascribed to it in NRS 618.069.

**618.871 “Encapsulation” defined.** “Encapsulation” means the application of an encapsulant to materials containing asbestos in order to control the release of asbestos fibers into the air, by creating a membrane over the surface or by penetrating the material and binding its components together.

**618.872 “Encapsulant” defined.** “Encapsulant” means any substance which works to encase or enclose asbestos in order to prevent it from becoming airborne.

**618.873 “Enclosure” defined.** “Enclosure” means an airtight, impermeable, permanent barrier around material containing asbestos to prevent the release of asbestos fibers into the air.

**618.8735 “Enforcement section” defined.** “Enforcement section” means the occupational safety and health enforcement section of the division.

**618.876 “Glove bag” defined.** “Glove bag” means a sealed compartment, with attached inner gloves, which is placed around insulated pipe and duct so that asbestos contained therein may be removed without a release of that asbestos into the environment.

**618.877 “Hazard” defined.** “Hazard” means any potential exposure of a person to an airborne concentration of asbestos in excess of 0.01 asbestos fibers per cubic centimeter of air.

**618.878 “High efficiency particulate air filtration (HEPA)” defined.** “High efficiency particulate air filtration (HEPA)” means a process which is capable of filtering all particulates larger than 0.3 micrometers with a 99.95 percent rate of efficiency.

**618.880 “Job set-up” defined.** “Job set-up” means any act taken in preparation of an activity for the abatement of asbestos.

**618.901 “Surfactant” defined.** “Surfactant” means a chemical wetting agent which, when added to water, improves penetration and reduces the release of asbestos fibers.

**618.905 “Wetted” defined.** “Wetted” means the use of amended water or removal of encapsulants to control the release of asbestos fibers from material containing asbestos.

**618.919 Permission to act as limited contractor.** 1. A person who has complied with all of the requirements to be a contractor, except the requirements relating to experience, may apply to the enforcement section for permission to be a limited contractor.

2. An application made pursuant to subsection 1 must be made in writing and delivered to the chief at 400 W. King Street, Suite 200, Carson City, Nevada 89703.

3. Permission to act as a limited contractor:

(a) Authorizes the limited contractor to perform a progression of projects for the abatement of asbestos, from simple inexpensive projects to difficult and complex projects;

(b) Is effective upon notification by the enforcement section; and

(c) Is limited to those situations where a project for the abatement of asbestos is supervised by a licensed supervisor who is experienced in the type of project performed.

**618.934 Permission to act as inspector trainee.** 1. A person who has complied with all of the requirements to be an inspector, except for the requirements relating to experience, may apply to the enforcement section for permission to be an inspector trainee.

2. An application made pursuant to subsection 1 must be made in writing and delivered to the chief at 400 W. King Street, Suite 200, Carson City, Nevada 89703.

3. Permission to act as an inspector trainee is effective upon notification by the enforcement section and is limited to those situations in which all services provided as an inspector trainee will be rendered under the direct supervisions of a licensed inspector or management planner.

**618.944 Permission to act as monitor trainee.** 1. A person who has complied with all of the requirements to be a monitor, except the requirement relating to experience, may apply to the enforcement section for permission to be a monitor trainee.

2. An application made pursuant to subsection 1 must be made in writing and delivered to the chief at 400 W. King Street, Suite 200, Carson City, Nevada 89703.

3. Permission to act as a monitor trainee is effective upon notification by the enforcement section and is limited to those situations in which all services provided as a monitor trainee will be rendered under the direct supervision of a licensed monitor.

**618.947 Licensee to maintain policy of industrial insurance; exception.**

1. A licensee shall maintain a policy of industrial insurance pursuant to chapter 616 of NRS during the time his license is effective. The policy must cover all employees and subcontractors under his control or supervision. A licensee may maintain a policy of industrial insurance outside of the state if the requirements set forth in NRS 616.260 are met.

2. A licensee shall present proof that he maintains a valid policy of industrial insurance as required by subsection 1 upon the request of an employee of the enforcement section.

3. The failure to maintain a valid policy of industrial insurance is a ground for the summary suspension of any license issued pursuant to NAC 618.850 to 618.986, inclusive.

4. The requirements of this section do not apply to abatement workers.

**618.957 Project for the abatement of asbestos: Performance by owner of building or structure.**

1. The owner of a building or structure who performs only a small scale-short duration project for the abatement of asbestos, as that term is defined in Appendix G of 29 C.F.R. § 1926.58, is not required to be licensed as a contractor pursuant to NAC 618.850 to 618.986, inclusive.

2. Such a project must be supervised by a licensed supervisor and performed by a licensed abatement worker.

3. An owner of a building or structure who is not a licensed contractor and who performs a project for the abatement of asbestos pursuant to this section shall comply with the requirements of NAC 618.953 to 618.956, inclusive, and 29 C.F.R. § 1926.58, as though he were a licensed contractor.

**618.959 Removal of asbestos.**

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 engineering controls set forth in Appendix F and G of 29 C.F.R. § 1926.58.

2. A request to remove asbestos from the outside of a building must be submitted to the enforcement section for approval before a notification form is submitted pursuant to NAC 618.954. The request must contain a plan for the abatement of asbestos which describes in detail how the project will be conducted to ensure that no hazardous concentrations of asbestos are released into the environment.

3. Equipment, materials or supplies must not be removed from the work area of a removal project unless they have been thoroughly decontaminated and cleaned free of asbestos debris or are properly placed in a container. If it is not possible or feasible to decontaminate and clean equipment, materials or supplies, they must be placed in a metal or plastic airtight container with a locking lid or thoroughly wrapped in at least two layers of 6-mil polyethylene sheeting, with all joints, seams and overlaps sealed with tape or another sealant, to make an airtight enclosure. For example, if a vacuum cleaner with high efficiency particulate air filtration is to be transported to a different worksite, it may be sealed in an airtight container or wrapping, rather than being fully dismantled and thoroughly cleaned, before being removed from the contaminated area.

4. Sections of insulated pipe or other objects to be disposed of intact may be transported to the disposal site without the removal of any material containing asbestos if it is sealed in an airtight container or wrapping as required by subsection 3.

5. Wood or other materials used at a project for the abatement of asbestos which is to be disposed of or transported to another contaminated work site for reuse must be thoroughly wrapped in at least two layers of 6-mil polyethylene sheeting with no exposed parts. All

openings around and between the sheeting surrounding the materials must be sealed with tape or another sealant to make an airtight enclosure.

6. Whenever feasible, vacuum cleaners with high efficiency particulate air filtration must be emptied of collected asbestos before the equipment is removed from the work area.

7. A prefilter in an air filtration device must be removed before the unit is removed from the work area of a removal project. The air filtration device must be damp cleaned completely inside and out. The equipment must be wrapped in plastic before it is removed from the work area.

8. Any provision of this section which conflicts with a provision of Appendix F of 29 C.F.R. § 1926.58, supersedes the provision with which it conflicts.

#### **618.962 Encapsulation of material.**

1. Before the encapsulation of any substance, any loose or hanging material containing asbestos must be safely removed.

2. Any filler material applied to gaps in existing material must:

- (a) Not contain asbestos;
- (b) Adhere well to the substrate; and
- (c) Provide an adequate base for the encapsulant.

3. Encapsulants must be applied using airless spraying equipment with the nozzle pressure and tip size set according to the manufacturer's recommendations.

4. Encapsulated material must be specifically designated by a sign, label, color coding or some other mechanism to warn people who may be required to disturb the material.

#### **618.963 Enclosure of area.**

1. All enclosures surrounding materials containing asbestos must be airtight and of a permanent construction so that the area is inaccessible.
2. All areas in which materials containing asbestos are located must be wetted if they are to be disturbed during the installation of hangers, brackets or other portions of the enclosure.
3. Before an area is enclosed, all loose or hanging material containing asbestos must be safely removed.
4. Any filler material applied to gaps in existing material must:
  - (a) Not contain asbestos; and
  - (b) Adhere well to the substrate.
5. Enclosures of all areas surrounding materials containing asbestos must be specially designated by signs, labels, color coding or some other mechanism to warn persons who may enter or disturb the enclosure.