ADOPTED REGULATION OF THE

DIVISION OF INDUSTRIAL RELATIONS OF THE

DEPARTMENT OF BUSINESS AND INDUSTRY

LCB File No. R012-25

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

AUTHORITY: § 1, NRS 455C.110 and 455C.112.

A REGULATION relating to public safety; exempting certain heat exchangers from certain provisions governing boilers and pressure vessels; and providing other matters properly relating thereto.

Legislative Counsel's Digest:

Existing regulations exempt certain boilers, pressure vessels and other related and associated equipment from the application of provisions governing boilers and pressure vessels generally. (NAC 455C.114) This regulation exempts brazed plate heat exchangers which satisfy certain criteria from the application of those provisions governing boilers and pressure vessels.

Section 1. NAC 455C.114 is hereby amended to read as follows:

455C.114 The provisions of NAC 455C.020 to 455C.300, inclusive, do not apply to:

1. Boilers and pressure vessels governed by the provisions of chapter 512 of NRS and, except as otherwise provided in section 8 of LCB File No. R026-23, chapter 512 of NAC.

2. Boilers and pressure vessels installed or used in a single-family residence unless the boiler or pressure vessel is a:

(a) Hot water supply boiler;

(b) Hot water supply tank that has a storage capacity which exceeds 120 gallons;

(c) Low-pressure heating boiler;

(d) Power boiler; or

(e) Pressure vessel that:

(1) Operates at pressures that exceed 15 PSIG; or

(2) Has a storage capacity of 5 cubic feet or more by volume.

3. Boilers and pressure vessels under the control of the Federal Government.

4. Unfired pressure vessels meeting the requirements of the United States Department of Transportation for the shipment of liquids or gases under pressure.

5. Unfired pressure vessels having an inside diameter not exceeding 6 inches (152 millimeters).

6. Unfired pressure vessels containing cold water under pressure, including those containing air, the compression of which serves only as a cushion.

7. A water heater or a pressure vessel containing water heated by steam or by any other indirect means, if none of the following limitations is exceeded:

(a) An input of heat of 199,999 British thermal units per hour (58,600 watts).

(b) A water temperature of 210 degrees Fahrenheit (99 degrees Centigrade).

(c) A water capacity of 120 gallons (450 liters).

8. Unfired pressure vessels that do not exceed 5 cubic feet in volume and 15 PSIG.

9. An unfired pressure vessel that may be classified as a pressure container which is an integral part or component of a rotating or reciprocating mechanical device, including a pump, compressor, turbine, generator, engine and hydraulic or pneumatic cylinder where the primary

considerations of or stresses in the design, or both, are derived from the functional requirements of the device.

10. Unfired pressure vessels used for the storage of compressed air only.

11. A hot water heater constructed of continuous coils, which is used only to produce steam vapor to clean 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 degrees Fahrenheit; and

(d) Steam is not generated within the coil,

➥ except that the provisions of NAC 455C.020 to 455C.300, inclusive, do apply to safety relief valves on a hot water heater constructed of continuous coils.

12. Unfired pressure vessels and piping containing liquid petroleum gas and liquid natural gas.

13. A brazed plate heat exchanger which:

(a) Is a component of an autoclave assembly, regardless of the size or rated pressure of the autoclave assembly;

(b) Is a component of a chiller, a heat pump or refrigeration equipment, regardless of the size or rated pressure of the chiller, heat pump or refrigeration equipment or the mass of refrigerant in the chiller, heat pump or refrigeration equipment, that:

(1) Is installed in an outdoor location; and

(2) Contains A1 or A2L refrigerants exclusively; or

(c) Is a component of a chiller, a heat pump or refrigeration equipment that:

(1) Is installed in an indoor location;

(2) Does not exceed 50 pounds in mass of refrigerant per circuit;

(3) Does not exceed 50 tons of cooling capacity per circuit; and

(4) Contains:

(I) A1 refrigerants; or

(II) A2L refrigerants and is installed in a room or area that consists of not less than 500 square feet of floor space.