NEBRASKA ADMINISTRATIVE CODE

TITLE 229 - DEPARTMENT OF LABOR

CHAPTER 1 - DEFINITIONS

001. This chapter is adopted pursuant to *Neb. Rev. Stat.* §48-727.

002. Unless the context otherwise requires, the following definitions shall apply for purposes of this title.

ACT - the Boiler Inspection Act *(Neb. Rev. Stat.* §§48-719 to 48-743).

ALTERATION - any change in the item described on the original manufacturer's data report which affects the pressure-containing capability of the boiler or unfired pressure vessel. Nonphysical changes such as an increase in the maximum allowable working pressure (internal or external) or design temperature of a boiler or unfired pressure vessel shall be considered an alteration. A reduction in minimum temperature such that additional mechanical tests are required shall also be considered an alteration.

ANSI CODES - The American National Standard Institute, Inc. A copy of the adopted codes shall be on file in the office of the Commissioner or the Commissioner's designee, and may be obtained from the American National Standards Institute at 11 West 42nd Street, New York, NY 10036.

ANTIQUE BOILERS - shall mean any power steam boiler and other boilers of a historical nature, leisure or heritage value which are not in general use for profit. To include but not be limited to the following as determined by the Department; steam tractors, cranes, locomotives, trains, and steam powered objects.

API-510, Pressure Vessel Inspection Code - the code for maintenance inspection, repair, alteration and re-rating procedures for pressure vessels used by the petroleum and chemical process industries published by the American Petroleum Institute. A copy of the code shall be on file in the office of the Commissioner or the Commissioner's designee and may be obtained from the American Petroleum Institute, 1220 L Street N.W., Washington, D.C. 20005-4070.

API/ASME CODE - The American Petroleum Institute (API) in conjunction with the ASME Code as used in these rules and regulations shall mean the Code for Unfired Pressure Vessels for Petroleum Liquids and Gases that existed from 1934 - 1956, and is no longer in use.

API CERTIFIED INSPECTOR - an inspector who is certified by the American Petroleum Institute to perform functions specified in API-510.

APPROVED - approved by the Boiler Safety Code Advisory Board. The Boiler Safety Code Advisory Board, created pursuant to *Neb. Rev. Stat.* §48-739, shall hold hearings and advise the Commissioner on regulations for methods of testing equipment, the construction and installation of new boilers and pressure vessels required to be inspected by the Boiler Inspection Act, and for inspection and certificate fees for such boilers and pressure vessels.

ASME CODE - The American Society of Mechanical Engineers Boiler and Pressure Vessel Code. A copy of the code shall be on file in the office of the Commissioner or the Commissioner's

designee and may be obtained from said society at 345 East 47 Street, New York, New York 10017.

ASME INTERNATIONAL- Formerly the American Society of Mechanical Engineers (ASME), 345 East 47 Street, New York, New York 10017.

AUTHORIZED INSPECTION AGENCY - one of the following:

The Department of Labor, Office of Safety and Labor Standards, for the State of Nebraska.

An insurance company which has been licensed or registered by the appropriate authority of Nebraska to write and does write boiler and pressure vessel insurance, and to provide inspection service of boilers and pressure vessels in Nebraska and whose inspectors hold valid commissions issued by The National Board of Boiler and Pressure Vessel Inspectors.

A company which has been qualified as an Authorized Inspection Agency by The National Board of Boiler and Pressure Vessel Inspectors in accordance with NB-369, *Qualifications and Duties for Authorized Inspection Agencies (AIAs) Performing Inservice Inspection Activities and Qualifications for Inspectors of Boilers and Pressure Vessels,* and which has been approved by the appropriate authority of Nebraska to perform boiler and pressure vessel inspections within the state, and whose inspectors hold valid commissions issued by The National Board of Boiler and Pressure Vessel Inspectors.

An owner-user inspection organization which has been approved by the State of Nebraska to provide inspection service of pressure vessels in the State and whose inspectors hold valid commissions issued by The National Board of Boiler and Pressure Vessel Inspectors, or whose inspectors are certified by the American Petroleum Institute.

BOILER - a closed vessel in which water or other liquid is heated, steam or vapor is generated, steam or vapor is superheated, or any combination thereof, under pressure or vacuum, for internal or external use to itself, by the direct application of heat and an unfired pressure vessel in which the pressure is obtained from an external source or by the application of heat from an indirect or direct source. The term boiler includes fired units for heating or vaporizing liquids other than water only when such unit is separate from processing systems and complete within itself. The term boiler also shall include the apparatus used by which heat is generated and all controls and safety devices associated with such apparatus or the closed vessels.

Power Boiler - a boiler in which steam or other vapor is generated at a pressure of more than 15 psig for use external to itself.

High-Temperature Power Boiler - a boiler in which water or other fluid is heated and intended for operation at pressures in excess of 160 psig and/or temperatures in excess of 250 degrees Fahrenheit.

Low Pressure Heating Boilers for external space heating systems:

A steam boiler operating at a pressure not exceeding 15 psig; or

Hot water heating boilers and hot water supply boilers operating at pressures not exceeding 160 psig and/or temperatures not exceeding 250°F.

Electric Boiler - a power boiler or heating boiler in which the source of heat is electricity.

Miniature Boiler - a power boiler or high-temperature boiler which does not exceed the following limits:

16 inch inside diameter of shell;

20 square feet heating surface (not applicable to electric boilers);

5 cubic feet gross volume exclusive of casing and insulation;

100 psig maximum allowable working pressure.

Portable Boiler - a boiler which is primarily intended for temporary location and the construction and usage permits it to be readily moved from one location to another.

Hot Water Supply Boiler - a boiler used to heat water for purposes other than space heating to be used externally to itself.

Heat Recovery Steam Generator - A heat exchanger that uses a series of heat transfer sections (e.g. superheater, evaporator, and economizer) positioned in the exhaust gas flow of a combustion turbine to recover heat and supply a rated steam flow at a required temperature and pressure.

Hobby Boiler - shall mean any power steam boiler and other boilers of a historical nature, leisure or heritage value which are not in general use for profit. To include but not be limited to the following as determined by the Department; steam tractors, cranes, locomotives, trains, and steam powered objects.

Pool Healer - a boiler designed for heating nonpotable water stored at atmospheric pressure such as water in swimming pools, spas, hot tubs, and similar applications.

Water Heater - a closed vessel used to supply potable hot water external to itself which is heated by the combustion of fuels, electricity or any other source and withdrawn for use external to the system at pressures not exceeding 160 psig, and shall include all controls and devices necessary to prevent water temperatures from exceeding 210 degrees Fahrenheit.

BOILER EXTERNAL PIPING - all piping and components connected to a boiler as defined in ASME B31.1 Power Piping and ASME Section I- Power Boilers.

BOILER NON-EXTERNAL PIPING - all piping and components connected downstream of a boiler as defined in ASME B31.1 - Power Piping.

BTU/HR - British thermal units per hour.

CERTIFICATE OF INSPECTION - an operating permit issued by the State of Nebraska following a satisfactory inspection that indicates the boiler or unfired pressure vessel complies with the Boiler Inspection Act and is permitted to operate.

COMMISSIONER - shall mean the Commissioner of Labor for the State of Nebraska.

CONDEMNED BOILER OR PRESSURE VESSEL - a boiler or pressure vessel that has been inspected and declared unsafe or disqualified by legal requirements by an inspector, and a

stamping or marking has been applied by the Chief or a Deputy Inspector designating its condemnation.

CORROSIVE SUBSTANCE - Any fluid that cause physical or chemical alteration of the pressure containing materials of a vessel.

DEPARTMENT - shall mean the Department of Labor of the State of Nebraska.

DERATING - The derating of a boiler or unfired pressure vessel due to any change in the pressure retaining items as described in the original manufactures original data report such that the boiler or unfired pressure vessel cannot be operated within the pressure temperature limits of original design.

EXISTING INSTALLATION - any boiler or unfired pressure vessel which was installed or within this state ready to be installed or has previously operated in this state prior to the effective date of the most recent amendments of this chapter.

EXTERNAL INSPECTION - an inspection made when a boiler or pressure vessel is in operation, if possible.

HAZARDOUS SUBSTANCE - Any fluid for which there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed employees, or any fluid that causes a sudden, almost instantaneous release of pressure, gas and heat when subjected to sudden shock, pressure or high temperature.

INSPECTOR - the chief inspector, deputy inspector, or special inspector or owner-user inspector.

CHIEF INSPECTOR - shall mean the boiler inspections manager appointed by the Commissioner under the provisions of *Neb. Rev. Stat.* §48-721.

DEPUTY INSPECTOR - shall mean the boiler inspector appointed by the Commissioner under the provisions of *Neb. Rev. Stat.* §48-721.

SPECIAL INSPECTOR - shall mean:

An inspector employed by an insurance company, which is authorized to insure boilers in the State of Nebraska, and who shall have been commissioned by the Commissioner. Such inspectors shall be commissioned by the Commissioner provided they hold a commission from a state having a boiler law the equivalent of that of the State of Nebraska or a commission from the National Board of Boiler and Pressure Vessel Inspectors; or

An inspector who holds a valid National Board Owner-User Commission who has passed the examination prescribed by the Board or is an API Certified Inspector under a jurisdictionally approved owner-user inspection organization.

INTERNAL INSPECTION - as complete an examination as can reasonably be made of the internal and external surfaces of a boiler, or pressure vessel while it is shut down and manhole plates, handhole plates or other inspection opening closures are removed as required by the inspector.

JURISDICTION - the <u>State</u> of Nebraska.

LETHAL SUBSTANCE· Poisonous gases or liquids (fluids) of such a nature that a very small amount of the gas or of the vapor of the liquid mixed or unmixed with air is dangerous to life when inhaled. For purposes of regulations, this definition includes substances of this nature which are stored under pressure or may generate a pressure if stored in a closed vessel. (Pressure vessels containing lethal substances shall be built in accordance with ASME Section VIII, Division I, UW-2.)

NATIONAL BOARD - The National Board of Boiler and Pressure Vessel Inspectors, (NBBI) 1055 Crupper Avenue, Columbus, Ohio 43229, whose membership is composed of the chief inspectors of jurisdictions who are charged with the enforcement of the provisions of a Boiler and Pressure Vessel Safety Act.

NATIONAL BOARD COMMISSION - a certificate issued by National Board to an individual who has passed the National Board examination, who holds a valid certificate of competency and who is regularly employed by an Authorized Inspection Agency.

NATIONAL BOARD COMMISSIONED INSPECTOR - an individual who holds a valid Certificate of Competency to perform inservice, repair and alteration inspections as defined by the National Board Inspection Code; holds a National Board Commission; and is regularly employed as an inspector by an Authorized Inspection Organization.

NATIONAL BOARD INSPECTION CODE - the code for jurisdictional authorities, inspectors, users and organizations performing inspections, repairs and alterations to pressure retaining items at installations other than those covered by API-510 and API-570 unless the jurisdiction rules otherwise. The code is published by the National Board and is developed under procedures accredited as meeting the criteria for American National Standards. A copy of the code shall be on file in the office of the Commissioner or the Commissioner's designee and may be obtained from The National Board of Boiler & Pressure Vessel Inspectors, 1055 Crupper Ave., Columbus, OH 43229-1183. Interpretations of the NBIC can be used as issued unless there is a disagreement between the repair organization and the Authorized Inspection Agency. The Chief Boiler Inspector shall be contacted for resolution and acceptance of any interpretation when there is a disagreement between the repair organization and the inspection agency and for the approval for use of any interpretation referencing an ASME Code Case.

NEBRASKA COMMISSION - a commission issued by the Commissioner to inspect jurisdictional boilers and pressure vessels in the State of Nebraska.

NEW BOILER INSTALLATION - shall mean and include all boilers contracted for, constructed, installed, and placed in operation after the effective date of the most recent amendment of this chapter, whether the boiler actually installed is new or used.

NFPA Codes - shall mean the National Fire Protection Association Codes as published by the society. A copy of the adopted codes shall be on file in the office of the Commissioner or the Commissioner's designee and may be obtained from the NFPA at P.O. Box 9143, Quincy, MA 02169.

NPS - shall mean Nominal Pipe Size.

ORIGINAL CODE OF CONSTRUCTION - documents promulgated by recognized national standards writing bodies that contain technical requirements for construction of pressure retaining items or equivalent to which the pressure retaining item was certified by the original manufacturer.

OWNER-USER - any person, firm, or corporation legally responsible for the safe installation, operation, and maintenance of any boiler or pressure vessel within the jurisdiction.

OWNER-USER INSPECTION ORGANIZATION - an owner or user of pressure vessels who maintains a regularly established inspection department, quality control system, quality control manual and whose organization and inspection procedures meet the requirements of the National Board Inspection Code or API-510, as applicable and acceptable to the Boiler Safety Code Advisory Board.

OWNER-USER REPAIR ORGANIZATION - A repair organization as defined at section 3.16 of API-510 and approved by the jurisdiction or an owner-user repair organization approved under the National Board Inspection Code to work on pressure vessels owned or used by the owner-user organization.

PRESSURE VESSEL - a~~n~~ ~~unfired~~ vessel in which the pressure is obtained from an external source, or by the application of heat from an indirect source, or from a direct source other than those boilers defined in this chapter. Pressure vessel shall include any part of the pressure vessel pressure boundary as identified on the Manufacturer's Data Report, original drawings, or as identified in the original code of construction.

P.S.I.G. or PSIG - pounds per square inch gage.

REINSTALLED BOILER OR PRESSURE VESSEL - a boiler or pressure vessel removed from its original setting and reinstalled at the same location or at a new location without change of ownership.

RELIEF VALVE - a pressure relief valve actuated by inlet static pressure having a gradual lift generally proportional to the increase in pressure over opening pressure. It may be provided with an enclosed spring housing suitable for closed discharge system application and is primarily used for liquid service.

REPAIR - the work necessary to restore a pressure retaining item to a safe and satisfactory operating condition.

REPAIR OF A PRESSURE RELIEF VALVE -the replacement, remachining or cleaning of any critical part, lapping of seat and disk or any other operation which may affect the flow passage, capacity function or pressure retaining ability of the valve. Disassembly, reassembly and/or adjustments which affect the pressure relief valve function are also considered a repair.

REPLACEMENT COMPONENT - the installation of renewal components, appurtenances and subassemblies or parts of a component or system not affecting existing design requirements.

SAFETY RELIEF VALVE - a pressure relief valve characterized by rapid opening or pop action, or by opening in proportion to the increase in pressure over opening pressure, depending on application.

SAFETY VALVE - a pressure relief valve actuated by inlet static pressure and characterized by rapid opening or pop action.

SECOND HAND BOILER OR PRESSURE VESSEL - a boiler or pressure vessel which has changed location and ownership since primary use.

STANDARD BOILER OR PRESSURE VESSEL - a boiler or pressure vessel which bears the stamp of this state, the ASME stamp, the API/ASME stamp, both the ASME and National Board

stamps, or the stamp of another jurisdiction which has adopted a standard of construction equivalent to that required by the Board.