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17.06.01 - BOILER AND PRESSURE VESSEL SAFETY RULES -- GENERAL REQUIREMENTS

000. LEGAL AUTHORITY.

These rules are promulgated pursuant to the authority granted the Industrial Commission by Sections 72-508, 72-720, 72-721, 72-722, and 72-723, Idaho Code. (7-1-97)

001. TITLE AND SCOPE.

These rules shall be cited as IDAPA 17, Title 06, Chapter 01, "Boiler and Pressure Vessel Safety Rules - General Requirements," and shall be applicable to all boilers, pressure vessels, water heaters, hot water storage tanks, and nuclear components manufactured or installed in the state of Idaho, except those specifically exempted in these rules. (7-1-97)

002. WRITTEN INTERPRETATIONS.

There are no written statements which pertain to the interpretation of these rules. (7-1-97)

003. ADMINISTRATIVE APPEALS.

There are no provisions for administrative appeal of these rules. The procedure for appeals in safety matters is prescribed by Sections 72-722 and 72-714 through 72-718, Idaho Code. (7-1-97)

004. -- 009. (RESERVED).

010. DEFINITIONS.

01. Alteration. Any change in the item described on the original Manufacturer's Data Report which affects the pressure containing capability of the boiler or pressure vessel. Nonphysical changes such as an increase in the maximum allowable working pressure (internal or external) or design temperature of a boiler or pressure vessel shall be considered an alternation. A reduction in minimum temperature such that additional mechanical tests are required shall also be considered an alternation. (7-1-97)

02. API Certified Inspector. An inspector who is certified by the American Petroleum Institute to perform functions specified in API-510 or API-570. (7-1-97)

03. API-510 Pressure Vessel Inspection Code. The code for the maintenance inspection, repair, alteration, and rerating procedures for pressure vessels used by the petroleum and chemical process industries. API-510 is published by the American Petroleum Institute and is an approved ANSI standard. (7-1-97)

04. API-570 Piping Inspection Code. The code for maintenance inspection, repair, alteration, and rerating procedures for process piping used by the petroleum and chemical process industries. API-570 is published by the American Petroleum Institute and is an approved ANSI standard. (7-1-97)

05. Approved. An approval by the National Board of Boiler and Pressure Vessel Inspectors. (7-1-97)

06. ASME Code. The Boiler and Pressure Vessel Code published by ASME International, including addenda and code cases approved by the council of that society. (7-1-97)

07. Authorized Inspection Organization. An insurance company which has been authorized to write and does write boiler and pressure vessel insurance, and provides an inspection service of boilers and pressure vessels in Idaho and whose inspectors hold valid commissions issued by the National Board of Boiler and Pressure Vessel Inspectors and a commission from the state of Idaho. (7-1-97)

08. Authorized Personnel. Persons who have been instructed in the operation and/or maintenance of the equipment and designated by the owner to use or maintain the equipment. (7-1-97)

09. Board. The National Board of Boiler and Pressure Vessel Inspectors. (7-1-97)

10. **Boiler.** A closed vessel in which water or other liquid is heated, steam is generated, steam is superheated, or any combination thereof, under pressure or vacuum for use external to itself, by the direct application of energy from the combustion of fuels, or from electricity, or solar or nuclear energy. This term "Boiler" shall include fired units for heating or vaporizing liquids other than water, but does not include fired process heaters and systems. 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. (7-1-97)

a. **Power boiler.** A boiler in which steam or other vapor is generated at a pressure of more than fifteen (15) psig for use external to itself. (7-1-97)

b. **High-temperature boiler.** A boiler in which water or other fluid is heated and intended for operation at pressures in excess of one hundred sixty (160) psig and/or temperatures in excess of two hundred fifty (250) degrees Fahrenheit. (7-1-97)

c. **Heating boiler.** A steam or vapor boiler operating at a pressure not exceeding fifteen (15) psig or a boiler in which water or other fluid is heated and intended for operation at pressures not exceeding one hundred sixty (160) psig or temperatures not exceeding two hundred fifty (250) degrees Fahrenheit. (7-1-97)

d. **Electric boiler.** A power boiler or heating boiler in which the source of heat is electricity. (7-1-97)

e. **Miniature boiler.** A power boiler or high temperature boiler which does not exceed the following limits: sixteen (16) inch inside diameter of shell; twenty (20) square feet of heating surface (not applicable to electric boilers); five (5) cubic feet gross volume exclusive of casing and insulation; one hundred (100) psig maximum allowable working pressure. (7-1-97)

f. **Unfired boiler.** An unfired steam or other vapor generating system using heat from the operation of a processing system or other indirect heat source. (7-1-97)

g. **Hot water supply boiler.** A boiler completely filled with water that furnishes hot water to be used externally to itself at pressures not exceeding one hundred sixty (160) psig or at temperatures not exceeding two hundred (200) degrees Fahrenheit at or near the boiler outlet. (7-1-97)

h. **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. (7-1-97)

11. **Certificate of Competency.** A certificate issued by the National Board of Boiler and Pressure Vessel Inspectors or other national agency recognized by the Administrator of the Building Safety Division, or certificate issued by another state which has standards equal to those of the state of Idaho and which recognizes the certificate of competency issued by or on behalf of the state of Idaho. (7-1-97)

12. **Certificate of Inspection.** A certificate issued by a person holding a certificate of competency and Idaho commission, to a person or persons owning or operating boilers or pressure vessels in the state of Idaho. (7-1-97)

13. **Commission.** The Industrial Commission of the state of Idaho. (7-1-97)

14. **Commissioner.** A member of the Industrial Commission of the state of Idaho. (7-1-97)

15. **Condemned Boiler, Pressure Vessel, or Nuclear Component.** A boiler, pressure vessel, or nuclear component that has been inspected and declared unsafe or disqualified by legal requirements by an inspector qualified to take such action who has applied a stamping or marking designating its rejection. (7-1-97)

16. **Department.** The Division of Building Safety. (7-1-97)

17. **Director.** The Administrator of the Building Safety Division. (7-1-97)

18. Existing Installation. Includes any boiler or pressure vessel constructed, installed, placed in operation, or contracted for before January 1, 1961 and for nuclear components constructed, installed, placed in operation, or contracted for before January 1, 1997. (7-1-97)
19. External Inspection. An inspection made when a boiler, pressure vessel, or nuclear component is in operation condition, if possible. (7-1-97)
20. Hot Water Storage Tank. A closed vessel connected to a water heater used exclusively to contain potable water. (7-1-97)
21. Idaho Commission. A formal written authorization (Idaho Identification Card) granting the power to perform various acts or duties (IDAPA 17.06.03, Subsection 011.07.a). (7-1-97)
22. Inspector. A person holding a National Board Certificate of Competency, an Idaho State Commission, is regularly employed as an inspector by an authorized inspection organization, and authorized by the Director to conduct inspections of boilers, pressure vessels, and nuclear components. (7-1-97)
23. Inspector of Record. The inspector who last inspected the boiler, pressure vessel, or nuclear component and whose name appears on the Certificate of Inspection. (7-1-97)
24. Insurance Company of Record. The insurance company who has written an insurance policy on a boiler, pressure vessel, or nuclear component and whose name appears on the Certificate of Inspection. (7-1-97)
25. Internal Inspection. As complete an examination as can reasonably be made of the internal surfaces of a boiler, pressure vessel, or nuclear component while it is shut down and hand-holes, manholes, or other inspection openings are opened for inspection of the interior as required by the inspector. (7-1-97)
26. Jurisdiction. The state of Idaho. (7-1-97)
27. Lined Potable Water Heater. A water heater with corrosion resistant lining used to supply potable hot water. (7-1-97)
28. Major Repair. A repair upon which the strength of a boiler depends. (7-1-97)
29. Modification. The process of changing an item that requires revision of the existing design requirements and may also require a revision to the design specification. (7-1-97)
30. National Board. The National Board of Boiler and Pressure Vessel Inspectors. (7-1-97)
31. National Board Inspection Code (NBIC). The adopted code for inspectors, users, and organizations performing repairs and alterations to pressure retaining items. It is published by the National Board and is developed under procedures accredited as meeting the criteria for American National Standards. (7-1-97)
32. National Board Commission. A certificate issued by the 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 organization. (7-1-97)
33. National Board Commissioned Inspector. An individual who: holds a valid certificate of Competency to perform in-service, 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. (7-1-97)
34. New Boiler, Pressure Vessel, or Nuclear Component Installation. Insofar as the application of these Boiler Safety Rules is concerned applies to, any boiler or pressure vessel, constructed, installed, placed in operation, or "contracted for" after January 1, 1961 and after January 1, 1997 for nuclear components. (7-1-97)
35. Nonstandard Boiler, Pressure Vessel, or Nuclear Component. A boiler, pressure vessel, or nuclear

- component that does not bear an ASME and National Board stamp. (7-1-97)
36. Nuclear Component. An item in a nuclear power plant such as vessels, piping systems, pumps, valves, and component supports. (7-1-97)
37. Nuclear Power Plant. One or more nuclear power systems and containment systems. (7-1-97)
38. Nuclear System. A system comprising nuclear components which collectively serve the purpose of producing and controlling an output of thermal energy from nuclear fuel and includes those associated systems essential to the function and overall safety of the power system. (7-1-97)
39. Object. A boiler, pressure vessel, water heater, hot water storage tank, or nuclear component. (7-1-97)
40. Original Code of Construction. The document promulgated by recognized national standards writing bodies that contain technical requirements for the construction of pressure retaining items or equivalent to which the pressure retaining item was certified by the original manufacturer. (7-1-97)
41. Owner or User. Any person, firm, corporation, or governmental entity legally responsible for the safe installation, operation maintenance of any boiler, pressure vessel, or nuclear component within the state of Idaho. (7-1-97)
42. Pressure Vessel. A closed vessel in which pressure is obtained from an external source, or from an indirect application of heat, including but not limited to, evaporators, heat exchanges or vessels in which steam is generated incidental to the operating of a processing system containing two or more vessels. (7-1-97)
43. Reinstated Boiler, Pressure Vessel, or Nuclear Component. A boiler, pressure vessel, or nuclear components removed from its original setting and erected at the same location or erected at a new location without change of ownership. (7-1-97)
44. Related Appurtenances. Any equipment instrumental to the safe operation of a boiler or pressure vessel. (7-1-97)
45. 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 maybe provided with an enclosed spring housing suitable for closed discharge system application and is primarily used for liquid service. (7-1-97)
46. Repair. The work necessary to restore a pressure retaining item to a safe and satisfactory operating condition. (7-1-97)
- a. Nuclear Component Repair. The work necessary to restore a nuclear component or system to a safe and satisfactory operating condition provided there is no deviation from the original design requirements. (7-1-97)
- b. Pressure Relief Valve Repair. The replacement, remachineing, 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. (7-1-97)
47. 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. (7-1-97)
48. Safety Valve. A pressure relief valve actuated by inlet static pressure and characterized by rapid opening or pop action. (7-1-97)
49. Secondhand Boiler, Pressure Vessel or Nuclear Component. A boiler, pressure vessel, or nuclear component of which both the location and ownership have been changed after primary use. (7-1-97)

50. Standard Boiler, Pressure Vessel, or Nuclear Component. A boiler, pressure vessel, or nuclear component which bears the ASME stamp, National Board stamp, or the API/ASME stamp. (7-1-97)
51. State Identification Number. A number issued by the state of Idaho to identify a specific object. (7-1-97)
52. Temperature-Pressure Relief Valve. A combination relief valve actuated by opening in proportion to the increase in pressure over opening pressure or by opening in proportion to the increase in temperature over opening temperature. (7-1-97)
53. Water Heater. A closed vessel used to supply potable hot water 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 one hundred sixty (160) psig, and shall include all controls and devices necessary to prevent water temperatures from exceeding two hundred ten (210) degrees Fahrenheit. (7-1-97)

011. ABBREVIATIONS.

01. ANSI. American National Standards Institute. (7-1-97)
02. API. American Petroleum Institute. (7-1-97)
03. ASME. American Society of Mechanical Engineers. (7-1-97)
04. ASTM. American Society for Testing and Materials. (7-1-97)
05. AWS. American Welding Society. (7-1-97)
06. BTU. British Thermal Unit. (7-1-97)
07. BTUH. British Thermal Unit per Hour. (7-1-97)
08. CFM. Cubic Feet per Minute. (7-1-97)
09. DBS. Division of Building Safety. (7-1-97)
10. DOT. Department of Transportation (Federal). (7-1-97)
11. FRP. Fiberglass Reinforced Plastic. (7-1-97)
12. GPM. Gallons per Minute. (7-1-97)
13. IDAPA. Idaho Administrative Procedures Act. (7-1-97)
14. ICC. Interstate Commerce Commission. (7-1-97)
15. ID. Inside Diameter. (7-1-97)
16. LPG. Liquefied Petroleum Gas. (7-1-97)
17. NBFU. National Board of Fire Underwriters. (7-1-97)
18. NBIC. National Board Inspection Code. (7-1-97)
19. NEC. National Electrical Code. (7-1-97)
20. NFPA. National Fire Protection Association. (7-1-97)

21.	NTP. Normal Temperature and Pressure.	(7-1-97)
22.	OD. Outside Diameter.	(7-1-97)
23.	PSI. Pounds per Square Inch.	(7-1-97)
24.	PSIA. Pounds per Square Inch Atmospheric.	(7-1-97)
25.	PSIG. Pounds per Square Inch Gauge.	(7-1-97)
26.	UBC. Uniform Building Code.	(7-1-97)
27.	UL. Underwriters Laboratories.	(7-1-97)
012. -- 999.	(RESERVED).	