

## **ARTICLE 33.1-14 NORTH DAKOTA BOILER RULES**

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### **CHAPTER 33.1-14-01 DEFINITIONS**

Section	
33.1-14-01-01	Definitions

#### **33.1-14-01-01. Definitions.**

As used in this article:

1. "Alteration" means a change in an item described on an original manufacturer's data report which affects the pressure retaining capability of the pressure retaining item. An alteration includes nonphysical changes, such as an increase in the maximum allowable internal or external working pressure, an increase in design temperature, or a reduction in minimum temperature. For boilers used in the power generation industry exceeding one hundred thousand pounds of steam per hour output, increases in steaming capacity may not be considered an alteration if a new baseline steaming capacity is established based on either an engineering evaluation or a review of the operating history and a conditional assessment of the boiler and its components. An engineering evaluation or conditional assessment must be made by the boiler owner with review and comment by the authorized inspection agency responsible for the in-service inspection of the boiler. Engineering evaluations and conditional assessments are subject to the review and approval of the chief boiler inspector.
2. "Apartments" means all multiple dwellings, including condominiums.
3. "Approved" means approved by the director.
4. "A.S.M.E. code" means the boiler and pressure vessel construction code of the American society of mechanical engineers of which sections I, II, IV, V, VIII (divisions 1, 2, and 3), IX, and X, 2021 edition, are hereby adopted by the director and incorporated by reference as a part of this article. A copy of the American Society of Mechanical Engineers Code is on file at the office of the boiler inspection program. The American Society of Mechanical Engineers Code may be obtained from the American Society of Mechanical Engineers headquarters at 2 Park Avenue, New York, New York 10016-5990 or from [www.asme.org](http://www.asme.org).
5. "Boiler" means a closed vessel in which water is heated, steam is generated, steam is superheated, or any combination thereof, under pressure or vacuum for use externally to itself by the direct application of heat from the combustion of fuels or from electricity or nuclear energy. The term boiler includes fired units for vaporizing liquids other than water when these

units are separate from processing systems and are complete within themselves, as provided under subsection 1 of North Dakota Century Code section 23.1-16-01.

6. "Certificate inspection" means an inspection, the report of which is used by the chief boiler inspector to decide whether a certificate may be issued under North Dakota Century Code section 23.1-16-10.
7. "Certificate of competency" means a certificate issued by a jurisdiction indicating that a person has passed an examination prescribed by the national board of boiler and pressure vessel inspectors.
8. "Chief inspector" means the chief boiler inspector appointed by the director to serve in the capacity as stated by law.
9. "Condemned boiler" means a boiler 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.
10. "Deputy inspector" means a boiler inspector or inspectors employed by the director to assist the chief inspector in making inspections of boilers.
11. "Director" means the director of the department of environmental quality.
12. "Existing installations" includes any boiler constructed, installed, or placed in operation before July 1, 1973.
13. "External inspection" means an inspection made when a boiler is in operation.
14. "Fusion welding" means a process of welding metals in a molten or molten and vaporous state, without the application of mechanical pressure or blows. Such welding may be accomplished by the oxyacetylene or oxyhydrogen flame or by the electric arc. Thermic welding is also classed as fusion.
15. "High-pressure, high-temperature water boiler" means a water boiler operating at pressures exceeding one hundred sixty pounds per square inch gauge [1103.17 kilopascals] or temperatures exceeding two hundred fifty degrees Fahrenheit [121.16 degrees Celsius]. For practical purposes it must be deemed the same as a power boiler.
16. "Hot water supply boiler" means a fired boiler used exclusively to supply hot water for purposes other than space heating and includes all service-type and domestic-type water heaters not otherwise exempt by North Dakota Century Code section 23.1-16-06.
17. "Inspector" means the chief boiler inspector or any deputy inspector or special inspector.
18. "Internal inspection" means an inspection made when a boiler is shut down and handholes and manholes are opened for inspection of the interior.
19. "Low pressure and heating boiler" means a boiler operated at pressures not exceeding fifteen pounds per square inch gauge [103 kilopascals] for steam or at pressures not exceeding one hundred sixty pounds per square inch gauge [1103.17 kilopascals] and temperatures not exceeding two hundred fifty degrees Fahrenheit [121.1 degrees Celsius] for water.
20. "Major repair" means a repair upon which the strength of a boiler would depend. Major repairs are those that are not of a routine nature as described in the National Board Inspection Code.
21. "Miniature boiler" means any boiler that does not exceed any of the following limits:
  - a. Sixteen inch [40.64 centimeter] inside diameter of shell.

- b. Twenty square feet [1.86 square meter] heating surface.
  - c. Five cubic feet [.142 cubic meter] gross volume, exclusive of casing and insulation.
  - d. One hundred pounds per square inch gauge [689.48 kilopascals] maximum allowable working pressure.
22. "National board" means the national board of boiler and pressure vessel inspectors, 1055 Crupper Avenue, Columbus, Ohio 43229, whose membership is composed of the chief inspectors of government jurisdictions who are charged with the enforcement of the provisions of the American Society of Mechanical Engineers Code.
  23. "National Board Inspection Code" means the manual for boiler and pressure vessel inspectors supplied by the national board. The National Board Inspection Code, 2021 edition, is hereby adopted by the director and incorporated by reference as a part of this article. Copies of this code may be obtained from the national board at 1055 Crupper Avenue, Columbus, Ohio 43229.
  24. "New boiler installations" includes all boilers constructed, installed, or placed in operation after July 1, 1973.
  25. "Nonstandard boiler" means a boiler that does not bear the state stamp, the national board stamping, the American society of mechanical engineers stamp, or the stamp of any state or political subdivision which has adopted a standard of construction equivalent to that required by this article.
  26. "Owner or user" means any person, firm, corporation, state, or political subdivision owning or operating any boiler that is not specifically exempt under North Dakota Century Code section 23.1-16-06 within North Dakota.
  27. "Power boiler" means a closed vessel in which steam or other vapor (to be used externally to itself) is generated at a pressure of more than fifteen pounds per square inch gauge [103 kilopascals] by the direct application of heat.
  28. "Reciprocal commission" means a commission issued by the director to persons who have passed a written examination prescribed by the national board and who hold a national board commission issued by the national board, or to persons who have passed the written examination prescribed by the national board and are employed by an accredited national board owner/user inspection organization.
  29. "Reinstalled boiler" means a boiler removed from its original setting and re-erected at the same location or erected at a new location without change of ownership.
  30. "Reinstalled pressure vessel" means a pressure vessel removed from its original setting and re-erected at the same location or erected at a new location without change of ownership.
  31. "Repair" is a restoration of any damaged or impaired part to an effective and safe condition.
  32. "Secondhand boiler" means a boiler of which both the location and ownership have been changed after primary use.
  33. "Secondhand pressure vessel" means a pressure vessel of which both the location and ownership have been changed after primary use.
  34. "Service-type or domestic-type water heater" means a fired water heater of either instantaneous or storage type, used for heating or combined heating and storage of hot water to be used exclusively for domestic or sanitary purposes, with temperatures not exceeding two

hundred ten degrees Fahrenheit [98.68 degrees Celsius], and a heat input not in excess of two hundred thousand British thermal units [ $2.11 \times 10^8$  joules] per hour, and pressure not to exceed one hundred sixty pounds per square inch [1103.17 kilopascals].

35. "Special inspector" means an inspector regularly employed by an accredited national board authorized inspection agency or an inspector who has passed the national board examination and is employed by an accredited national board owner/user inspection organization.
36. "Standard boiler" means a boiler that bears the stamp of North Dakota or of another state that has adopted a standard of construction equivalent to that required by this article or a boiler that bears the national board stamping or American society of mechanical engineers stamp.
37. "State of North Dakota boiler construction code" is used to designate the accepted reference for construction, installation, operation, and inspection of boilers and will be referred to as this article. Anything not amended or specifically covered in this article must be considered the same as the American society of mechanical engineers code.
38. "Steam traction engines" means boilers on wheels which are used solely for show at state fairs and other exhibitions in which the public is invited to attend.

**History:** Effective July 1, 2020; amended effective January 1, 2022.

**General Authority:** NDCC 23.1-16-01

**Law Implemented:** NDCC 23.1-16-01