

CHAPTER 33.1-14-04 POWER BOILERS - NEW INSTALLATIONS

Section

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33.1-14-04-01. Requirements.

1. All new boilers, except those exempt by law, to be installed in North Dakota must be reported to the chief boiler inspector by the owner or user and by the installer.
2. After July 1, 1973, power boilers that are not exempt by law may not be installed in this state unless they have been constructed, inspected, and stamped in conformity with the applicable edition of the American Society of Mechanical Engineers Code for power boilers and are approved, registered, and inspected in accordance with the requirements of this article.
3. A boiler having the standard stamping of another state or province of Canada that has adopted a standard of construction equivalent to the standard of North Dakota may be accepted by the chief boiler inspector if the person desiring to install the boiler makes application for the installation and files with the application the manufacturer's data report covering the construction of the boiler.

History: Effective July 1, 2020.

General Authority: NDCC 23.1-16-05

Law Implemented: NDCC 23.1-16-05

33.1-14-04-02. Appurtenances - Piping and tests.

1. The inspector shall inspect all boilers and connected appurtenances for their safe operation and all pressure piping connecting them to the appurtenances and all piping up to and including the first stop valve, or the second stop valve when two are required.
2. Any pressure piping to the boiler, such as water column, blowoff valve, feedwater regulator, superheater, economizer, stop valves, etc., which are shipped connected to the boiler as a unit, must be hydrostatically tested with the boiler and witnessed by an inspector.
3. All economizers, whether separately fired or not, and when located within the scope of boiler external piping, must be constructed to section I of the American Society of Mechanical Engineers Code. All superheaters must be constructed to section I of the American Society of Mechanical Engineers Code.
4. The chief boiler inspector may waive American society of mechanical engineers section I boiler external piping requirements for new and secondhand boilers of less than forty horsepower output if the boiler external piping is mechanically installed (i.e., no welding), the piping does not exceed two inch [5.08 centimeters] national pipe standard in size, the piping is schedule eighty minimum, and the boiler maximum allowable working pressure does not exceed one hundred fifty pounds per square inch [1034.22 kilopascals] gauge.

History: Effective July 1, 2020.

General Authority: NDCC 23.1-16-07

Law Implemented: NDCC 23.1-16-07

33.1-14-04-03. Exits from boiler rooms.

1. To lessen the hazard of being trapped within the boiler room, ash pit aisles, or other locations, there must be at least two means of exit as may be considered necessary by the inspector. Each elevation must be provided with at least two means of egress, each to be remotely located from the other.
2. All inspectors shall notify the chief inspector of the owners or users who must provide for these requirements. The chief inspector shall then give written notice to the owner or user that the necessary work must be completed within six months from the date of notification.

History: Effective July 1, 2020.

General Authority: NDCC 23.1-16-07

Law Implemented: NDCC 23.1-16-07

33.1-14-04-04. Boiler clearances.

1. All new boiler installations must be designed to allow for normal operation, cleaning, and inspections, and must have at least three feet [.91 meters] of clearance on each side of the boiler with no obstructions and boilers operated in battery may not be installed closer than four feet [1.22 meters] from each other.
2. All boilers must be installed to allow for removal of tubes without removing walls or other structures. The front or rear of any boiler may not be located any nearer than three feet [.91 meters] from any wall or structure.
3. On all boilers equipped with a manhole, at least seven feet [2.1336 meters] of clearance must be maintained from the top of the boiler manhole to the ceiling of the boiler room.
4. Boilers without manholes must have a minimum of at least three feet [.91 meters] from the top of the boiler to the lowest point of the boiler room ceiling.

History: Effective July 1, 2020.

General Authority: NDCC 23.1-16-07

Law Implemented: NDCC 23.1-16-07

33.1-14-04-05. Carbon monoxide detector or alarm.

The owner or user shall install a carbon monoxide detector or alarm in equipment rooms where fuel fired boilers or fuel fired pressure vessels, or both are located in accordance with the authority having jurisdiction.

History: Effective July 1, 2020.

General Authority: NDCC 23.1-16-07

Law Implemented: NDCC 23.1-16-07

33.1-14-04-06. Safety valve capacity.

The minimum required relieving capacity of safety valves or safety relief valves for all types of boilers may not be less than the maximum designed steaming capacity as determined by the manufacturer and must be based on the capacity of all the fuel burning equipment as limited by other boiler functions.

History: Effective July 1, 2020.

General Authority: NDCC 23.1-16-07

Law Implemented: NDCC 23.1-16-07