# 522 CMR 3.00: POWER REACTOR VESSELS AND PIPING AND UNFIRED PRESSURE VESSELS AS USED IN ATOMIC ENERGY INSTALLATIONS

Section



## 3.01: Scope and Application

522 CMR 3.00 applies to all nuclear power reactor vessels and piping as well as unfired vessels used in atomic energy installations.

## 3.02: Construction (Effective 2/25/17)

(1) In accordance with the provisions of M.G.L. c. 146, § 2, the Board adopts by reference the 2015 *ASME Boiler and Pressure Vessel Code* Section III, *Rules for the Construction of Nuclear Facility Components.*

(2) 522 CMR 3.00 shall be applicable to the construction, installation, and inspection of steam Boilers, power reactor vessels, containment vessels, piping, reactor plant Appurtenances, and unfired Pressure Vessels as used in atomic energy installations subject to the provisions of M.G.L. c. 146.

## 3.03: Installation

In accordance with the provisions of M.G.L. c. 146, § 2, the Board adopts the 2019 *NBIC Part 1*.

## 3.04: Inspection, Repairs, and Alterations

In accordance with the provisions of M.G.L. c. 146, § 2, the Board adopts the 2015 *ASME Boiler and Pressure Vessel Code* Section XI - Division 1, *Rules for In-service Inspection of Nuclear Power Plant Components*, in addition to the 2019 *NBIC* Part 2 and Part 3.

## 3.05: Inspector and Records

(1) An Authorized Nuclear Inspector and Authorized Nuclear Inspector (Concrete) shall be on the site during the mechanical construction and testing phases of every nuclear reactor installation, its components, appurtenances, containment vessel, and piping systems. The District Engineering Inspector may make such inspections as deemed appropriate.

(2) The Owner/User shall keep permanent records to maintain complete traceability of all material used in the construction of any nuclear reactor plant. These records shall include certificates of chemical and physical properties.

(a) Permanent records shall be kept at the plant site to maintain complete traceability of all welds that fall within the limits of the 2015 *ASME Boiler and Pressure Vessel Code* Section III, *Rules for Construction of Nuclear Facility Components.*

(b) Permanent records shall be maintained identifying all welders, and their qualifications, performing welds covered in 522 CMR 3.05(2)(a).

## 3.06: Miscellaneous Provisions

(1) The owner of a nuclear power plant shall provide a procedure by which all agency reports and data sheets shall be coordinated to the satisfaction of the Chief or his or her designee.

3.06: continued

(2) Pressure Tests.

(a) An Authorized Nuclear Inspector may require a pressure test to determine the extent of a defect or detrimental condition found in a Pressure Vessel. Such test shall be performed in accordance with the 2019 *NBIC* and 2015 *ASME Boiler and Pressure Vessel Code*, Section III, *Rules for Construction of Nuclear Facility Components.*

(b) The maximum metal temperature is not to be more than 120°F, unless the Authorized Nuclear Inspector agrees to a temperature higher than 120°F.

(c) When the contents of the vessel prohibit contamination by any other medium or when a hydrostatic test is not possible, other testing media may be required by the Authorized Nuclear Inspector, provided that the precautionary requirements in the NBIC are followed.

REGULATORY AUTHORITY

522 CMR 3.00: M.G.L. c. 146, §§ 1 through 51, 56 through 64 and 66 through 80.