

BI 26-01: Coded and Non-Coded Pool Heaters – Inspection Requirements

Statement of Need: The submitter requests the Board of Boiler Rules provide clarification on the inspection and safety requirements for ASME/NB coded and non-coded pool heaters installed and operated in the state of Tennessee. Specifically, guidance is requested regarding when these vessels fall under inspection requirements based on the presence of isolation valves and whether ASME and NB certifications are required when the vessels fall under 200,000 Btu/hr.

Background: 0800-03-03-.03 Construction Standards.

- (1) No boiler or unfired pressure vessel shall be installed for operation in the State unless it is designed, constructed, inspected, stamped, and installed for the desired pressure and temperature in accordance with the provisions of this Chapter, the applicable section of the ASME Code, and other applicable law.
- (2) Boilers and pressure vessels shall bear the c and the manufacturer's NB number as registered with the NB. A copy of the Manufacturer's Data Report signed by the manufacturer's representative and the NB commissioned inspector employed by the third-party inspection agency shall be filed with the Chief Inspector or Chief Inspector's Designee when the boiler or pressure vessel is shipped into this State for installation.

Under 0800-03-03-.03 (5) Exemption: Potable water heaters are exempt from the ASME Code and NB stamping when neither of the following limitations are exceeded:

- (a) Heat input of 199,999 Btu/hr.
- (b) Water temperature of 210°F. However, such potable water heaters, including instantaneous water heaters, with a heat input of between 100,000 and 199,999 Btu/hr are subject to registration, inspection and inspection certificate requirements.
- (c) These vessels are required to have an NB rated, ASME constructed, test-lever pressure-temperature activated safety relief device.

68-122-102. Rules and regulations – Part definitions.

“Boiler” means and includes a closed vessel or vessels intended for use in heating water or other liquids or for generating steam or other vapors under pressure or vacuum by the direct application of heat from combustible fuels, electricity, or nuclear energy, and also includes an unfired pressure vessel, meaning a vessel in which pressure is obtained from an external source or from an indirect application of heat.

Inquiry (1):

In the state of Tennessee, are ASME/NB coded and non-coded pool heaters without isolation valves (The system is open to atmosphere) subject to inspection under Tennessee Jurisdictional requirements?

Reply (1):

No. However, an installation permit must be submitted to the Tennessee Boiler Unit prior to installing any pool heater at or above 100,000 Btu/hr within the state followed by a single installation inspection.

Inquiry (2):

In Tennessee, are ASME/NB coded and non-coded pool heaters at or above 100,000 Btu/hr of input with isolation valves (could build pressure in a closed system) required to be inspected under Tennessee Jurisdiction?

Reply (2):

Yes; if isolation valves are present, pool heaters at or above 100,000 Btu/hr of input are subject to registration, inspection, and inspection certificate requirements.

Inquiry (3):

Do the ASME Code and National Board (NB) stamping exemption provisions in 0800-03-03-.03(5) apply to non-ASME/NB-coded pool heaters with a heat input between 100,000 and 199,999 Btu/hr?

Reply (3):

Yes, provided that:

- A thermometer is installed in an easily readable location to continuously display the vessel's water temperature at or near the outlet;
- These pool heaters have either been labeled and/or listed by a nationally registered testing agency; and
- All other requirements of 0800-03-03-.03(5) are met.