

### **13 NCAC 13 .0421      NORTH CAROLINA SPECIAL**

(a) The North Carolina Department of Labor shall issue an inspection certificate for a boiler or pressure vessel constructed under standards equivalent to those established in the ASME Code if an application for permission to construct and install a North Carolina Special is submitted to and approved by the Chief Inspector prior to commencing construction. The Chief Inspector shall approve a request for an inspection certificate if the application is complete and if the information contained in the application demonstrates that the boiler or pressure vessel is as safe as a similar boiler or pressure vessel constructed to the requirements of the ASME Code. The application, which may be in the form of a letter, shall contain relevant data proving that its construction is equivalent to ASME standards. The Chief Inspector or his designee may elect to visit, at the expense of the owner or user, or manufacturer, the facility where the boiler or pressure vessel is under construction in order to audit the manufacturer's construction techniques, personnel qualifications, and quality control program.

(b) The North Carolina Department of Labor shall issue an inspection certificate for a boiler or pressure vessel which has operated in another state even if the ASME construction and stamping requirements otherwise contained in the North Carolina Rules are not satisfied if the following requirements are satisfied:

- (1) the state in which the boiler or pressure vessel was operated enforces ASME Code requirements for similar boilers and pressure vessels;
- (2) the boiler or pressure vessel was inspected during construction by an inspector commissioned by the state in which the item was installed or manufactured; and
- (3) the report from the last certificate inspection conducted in the state in which the boiler or pressure vessel was previously installed is made available to the Chief Inspector, and the inspection resulted in the applicable authorization for operation.

(c) The applicant shall submit a design specification, certified by a professional engineer, to the Chief Inspector to verify that the boiler or pressure vessel meets the ASME Code as far as is practicable. The following documentation shall be included as a minimum:

- (1) design calculations and drawings;
- (2) material test reports or their equivalent, and for material not allowed by ASME, an evaluation of the materials in comparison to the most similar material approved for ASME construction;
- (3) a record of welding qualifications as required by Section IX of the ASME Welding and Brazing Qualifications Code; and
- (4) satisfactory results of any additional examination or test deemed necessary by the Chief Inspector.

(d) Design calculations for pressure vessels to be operated in excess of 3,000 psig shall include a fatigue analysis as described in ASME Section VIII, Division 2 or 3, to determine the operating lifetime of the pressure vessel, and a proposal for operation that details the owner or user's monitoring program to verify compliance with the fatigue analysis.

(e) The maximum allowable working pressure for the boiler or pressure vessel as established in the calculations shall be consistent with what is required by the ASME Code for similar boilers or pressure vessels.

(f) Boilers and pressure vessels operating as North Carolina State Specials shall meet all installation, alteration, inspection, repair, and operation requirements of this Chapter.

(g) The Chief Inspector shall approve operation of boilers and pressure vessels which were constructed to the requirements of a department of the federal government which enforces requirements equivalent to the ASME Code, provided an application as otherwise required by this Chapter is submitted to the Chief Inspector and found acceptable.

*History Note: Authority G.S. 95-69.11; 95-69.14;  
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Recodified from 13 NCAC 13 .0415 Eff. January 1, 1995;  
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