

3) For construction permits issued on or after July 1, 1974, pumps which are part of the reactor coolant pressure boundary² shall meet the requirements for Class 1 components set forth in Section III of the ASME Boiler and Pressure Vessel Code and Addenda^{3*} in effect⁴ on the date of order⁵ of the pump or 12 months prior to the formal docket date⁶ of the application for a construction permit, whichever is later: *Provided*, That the applicable ASME Code provisions for pumps shall be no earlier than those of the Winter 1972 Addenda of the 1971 edition. The pumps may meet the requirements set forth in subsequent editions of this Code and Addenda which become effective.

(f) Valves:

(1) For construction permits issued before January 1, 1971, for reactors not licensed for operation, valves which are part of the reactor coolant pressure boundary² shall meet the requirements set forth in

(i) The American Standard Code for Pressure Piping (ASA B31.1), Addenda, and applicable Code Cases, or the USA Standard Code for Pressure Piping (USAS B31.1.0), Addenda, and applicable Code Cases, in effect⁴ on the date of order⁵ of the valves or the Class I of section of the Draft ASME Code for Pumps and Valves for Nuclear Power,⁷ Addenda, and Code Cases in effect on the date of order of the valves, or

(ii) The nondestructive examination and acceptance standards of ASA B31.1 and Code Cases N2, N7, N9, and N10, except that the acceptance standards for Class I valves set forth in the Draft ASME Code for Pumps and Valves for Nuclear Power and Addenda in effect on the date of order of the valves may be applied.

The valves may meet the requirements set forth in editions of ASA B31.1, USAS B31.1.0, and the Draft ASME Code for Pumps and Valves for Nuclear Power, Addenda, and Code Cases, which became effective after the date of order of the valves.

(2) For construction permits issued on or after January 1, 1971, but before July 1, 1974,⁸ valves which

are part of the reactor coolant pressure boundary² shall meet the requirements for Class I valves set forth in editions of (i) the Draft ASME Code for Pumps and Valves for Nuclear Power and Addenda^{3*} in effect⁴ on the date of order⁵ of the valves and the requirements applicable to valves set forth in articles 1 and 8 of editions of section III of the ASME Boiler and Pressure Vessel Code and Addenda^{3*} in effect on the date of order of the valves, or (ii) the requirements applicable to Class 1 valves of section III of the ASME Boiler and Pressure Vessel Code and Addenda in effect on the date of order of the valve; *Provided, however*, That if the valves are ordered more than 12 months prior to the date of issuance of the construction permit, compliance with the requirements for Class I valves set forth in editions of the Draft ASME

See page 50-14 for footnotes 1 through 6.

⁸Where an application for a construction permit is submitted in four parts pursuant to the provisions of § 2.101(a-1) and Subpart F of Part 2 of this chapter, "the formal docket date of the application for a construction permit" for the purposes of this section shall be the date of docketing of the information required by § 2.101(a-1)(2) or (3), whichever is later.

Code for Pumps and Valves for Nuclear Power and Addenda^{3*} and the requirements applicable to valves set forth in articles 1 and 8 of editions of section III of the ASME Boiler and Pressure Vessel Code and Addenda or for Class 1 valves of section III of the ASME Boiler and Pressure Vessel Code and Addenda in effect 12 months prior to the date of issuance of the construction permit is required. The valves may meet the requirements set forth in editions of these Codes or Addenda which have become effective after the date of valve order or after 12 months prior to the date of issuance of the construction permit.

(3) For construction permits issued on or after July 1, 1974, valves which are part of the reactor coolant pressure boundary² shall meet the requirements for Class 1 components set forth in Section III of the ASME Boiler and Pressure Vessel Code and Addenda^{3*} in effect⁴ on the date of order⁵ of the valve or 12 months prior to the formal docket date⁶ of the application for a construction permit, whichever is later: *Provided*, That the applicable ASME Code provisions for valves shall be no earlier than those of the Winter 1972 Addenda of the 1971 edition. The valves may meet the requirements set forth in subsequent editions of this Code and Addenda which become effective.

(g) Inservice inspection requirements:

(1) For a boiling or pressurized water-cooled nuclear power[†] facility whose construction permit was issued prior to January 1, 1971, components (including supports) shall meet the requirements of paragraphs (g)(4) and (g)(5) of this section to the extent practical. Components which are part of the reactor coolant pressure boundary² and their supports shall meet the requirements applicable to components which are classified as ASME Code Class 1. Other safety-related pressure vessels, piping, pumps and valves shall meet the requirements applicable to components which are classified as ASME Code Class 2 or Class 3.

(2) For a boiling or pressurized water-cooled nuclear power[†] facility whose construction permit was issued on or after January 1, 1971, but before July 1, 1974, components (including supports) which are classified as ASME Code Class 1 and Class 2 shall be designed and be provided with access to enable the performance of (i) inservice examination of such components (including supports) and (ii) tests for operational readiness of pumps and valves, and shall meet the preservice examination requirements set forth in editions of Section XI of the ASME Boiler and Pressure Vessel Code and Addenda^{3*} in effect 6 months prior to the date of issuance of the construction permit. The components (including supports) may meet the requirements set forth in subsequent editions of this code and addenda which become effective.

(3) For a boiling or pressurized water-cooled nuclear power[†] facility whose construction

*Amended 41 FR 6256.

†Amended 41 FR 23931.

permit was issued on or after July 1, 1974:

(i) Components which are classified as ASME Code Class 1 shall be designed and be provided with access to enable the performance of inservice examination of such components and shall meet the preservice examination requirements set forth in Section XI of editions of the ASME Boiler and Pressure Vessel Code and Addenda^{3*} applied to the construction of the particular component in accordance with paragraph (c), (d), (e), or (f) of this section.

(ii) Components which are classified as ASME Code Class 2 and Class 3 and supports for components which are classified as ASME Code Class 1, Class 2, and Class 3 shall be designed and be provided with access to enable the performance of inservice examination of such components and shall meet the preservice examination requirements set forth in Section XI of editions of the ASME Boiler and Pressure Vessel Code and Addenda^{3*} applied to the construction of the particular component.

(iii) Pumps and valves which are classified as ASME Code Class 1 shall be designed and be provided with access to enable the performance of inservice testing of the pumps and valves for assessing operational readiness set forth in Section XI of editions of the ASME Boiler and Pressure Vessel Code and Addenda^{3*} applied to the construction of the particular pump or valve in accordance with paragraphs (e) and (f) of this section or the Summer 1973 Addenda, whichever is later.

(iv) Pumps and valves which are classified as ASME Code Class 2 and Class 3 shall be designed and be provided with access to enable the performance of inservice testing of the pumps and valves for assessing operational readiness set forth in Section XI of editions of the Boiler and Pressure Vessel Code and Addenda^{3*} applied to the construction of the particular pump or valve or the Summer 1973 Addenda, whichever is later.

(v) All components (including supports) may meet the requirements set forth in subsequent editions of codes and addenda or portions thereof which become effective.

(4) Throughout the service life of a boiling or pressurized water-cooled nuclear power[†] facility, components (including supports) which are classified as ASME Code Class 1, Class 2 and Class 3 shall meet the requirements, except design and access provisions and preservice examination requirements, set forth in Section XI of editions of the ASME Boiler and Pressure Vessel Code and Addenda^{3*} that become effective subsequent to editions specified in paragraphs (g)(2) and (g)(3) of this section and are incorporated by reference in paragraph (b) of this section, to the extent practical within the limitations of design, geometry and materials of construction of the components.

(i) The initial inservice examinations conducted during the first 40 months shall comply with the requirements in

†Amended 42 FR 22882.

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the editions of the code and addenda in effect no more than 6 months prior to the date of start of facility commercial operation.

(ii) The inservice examinations conducted during successive 40-month periods throughout the service life of the facility thereafter shall comply with those requirements in editions of the code and addenda in effect no more than 6 months prior to the start of each 40-month period.

(iii) The initial inservice tests to verify operational readiness of pumps and valves whose function is required for safety† and system pressure tests conducted during the first 20 months shall comply with those requirements in editions of the code and addenda in effect no more than 6 months prior to the start of facility commercial operation.

(iv) Inservice tests to verify operational readiness of pumps and valves whose function is required for safety‡ and system pressure tests conducted during successive 20-month periods throughout the service life of the facility shall comply with those requirements in editions of the code and addenda in effect no more than 6 months prior to the start of each 20-month period.

(v) For an operating boiling or pressurized water-cooled nuclear power‡ facility whose operating license was issued prior to March 1, 1976, the provisions of paragraph (g) (4) of this section shall become effective after September 1, 1976, at the start of the next regular 40-month period of a series of such periods beginning at the start of facility commercial operation.

(5)(i) The inservice inspection program for a boiling or pressurized water-cooled nuclear power‡ facility shall be revised by the licensee, as necessary, to meet the requirements of paragraph (g) (4) of this section.

(ii) If a revised inservice inspection program for a facility conflicts with the technical specification for the facility, the licensee shall apply to the Commission for amendment of the technical specifications to conform the technical specification to the revised program. This application shall be submitted at least 6 months before the start of the period during which the provisions become applicable as determined by paragraph (g) (4) of this section.

(iii) If the licensee has determined that conformance with certain code requirements is impractical for his facility, the licensee shall notify the Commission and submit information to support his determinations.

(iv) Where an examination or test requirement by the code or addenda is determined to be impractical by the licensee and is not included in the revised inservice inspection program, as permitted by paragraph (g) (4) of this section, the basis for this determination shall be demonstrated to the satisfaction of the Commission not later than 12 months after the expiration of the initial 120-month period of operation from start of facility commercial operation and each subsequent 120-month period of operation during which the examination or test is determined to be impractical.

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(6) (i) The Commission will evaluate determinations under paragraph (g) (5) of this section that code requirements are impractical. The Commission may grant such relieve and may impose such alternative requirements‡ as it determines is authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements were imposed on the facility.

(ii) The Commission may require the licensee to follow an augmented inservice inspection program for systems and components for which the Commission deems that added assurance of structural reliability is necessary.

(h) Protection systems: For construction permits issued after January 1, 1971, protection systems shall meet the requirements set forth in editions or revisions of the Institute of Electrical and Electronics Engineers Standard: "Criteria for Protection Systems for Nuclear Power Generating Stations," (IEEE-279) in effect⁷ on the formal docket date⁸ of the application for a construction permit.* Protection systems may meet the requirements set forth in subsequent editions or revisions of IEEE-279 which become effective.

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⁷ For purposes of this regulation, the proposed IEEE 279 became "in effect" on August 30, 1968, and the revised issue IEEE 279-1971 became "in effect" on June 3, 1971. Copies may be obtained from the Institute of Electrical and Electronics Engineers, United Engineering Center, 345 East 47th Street, New York, NY 10017. A copy is available for inspection at the Commission's Public Document Room, 1717 H Street NW., Washington, D.C.

⁸ Where an application for a construction permit is submitted in four parts pursuant to the provisions of § 2.101(a-1) and Subpart F of Part 2 of this chapter, "the formal docket date of the application for a construction permit" for the purposes of this section shall be the date of docketing of the information required by § 2.101(a-1)(2) or (3), whichever is later.

† Amended 41 FR 23931.
‡ Amended 43 FR 56015.

* Amended 42 FR 22882.

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