

4/26/76

Docket No. 50-331

Iowa Electric Light & Power Company
ATTN: Mr. Duane Arnold, President
Security Building
P. O. Box 351
Cedar Rapids, Iowa 52406

Gentlemen:

RE: Duane Arnold Energy Center

We wish to call your attention to the fact that the inservice inspection testing requirements for ASME Code Class 1, 2 and 3 components for nuclear power plants delineated in 10 CFR Part 50.55a were changed by a revision to the regulations published on February 27, 1976 (copy enclosed). The revised regulations require inservice inspection and testing to be performed in accordance with the examination and testing requirements set forth in Section XI of ASME, Boiler and Pressure Vessel Code, and Addenda. A review of the 1974 edition of ASME Section XI indicates that conflicts may occur between these requirements and the technical specifications presently in effect for your facility. To avoid these and future conflicts, you should, in accordance with 50.55a(g)(5)(ii), apply to the Commission for amendment of your technical specifications. Any such conflicting technical specifications should be replaced with a reference to 10 CFR 50.55a. Sample language for such technical specification changes is provided as an enclosure.

As specified in the revised regulation, for plants with Operating Licenses issued prior to March 1, 1976, its provisions become effective after September 1, 1976, at the start of the next regular 40 month inspection period. The initial inservice examinations conducted during the first 40 month period, and the initial inservice tests of pumps and valves conducted during the first 20 month period, must comply with the requirements in editions of the ASME Code and Addenda in effect no more than 6 months prior to the date of start of facility commercial operation.

If you determine that conformance with certain ASME Section XI inservice inspection and testing requirements is impracticable, you should submit information to the Division of Operating Reactors to support your determinations in accordance with 50.55a(g)(5)(iii) and (iv). Your determinations should separately identify the specific ASME Code requirement that is impracticable for each affected component. We will evaluate your determinations and, if appropriate, grant relief pursuant to 50.55a(g)(6)(i).

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As required by the revised regulations, your request for amendment of technical specifications, and information to support any determinations that conformance with certain ASME code requirements is impracticable must be submitted at least six (6) months prior to the start of the inspection period during which the provisions become applicable for your facility.

Within thirty (30) days of the receipt of this letter, we request that you inform us of the date your facility's next 40 month inspection period commences and the date you intend to submit your amendment request. If you have any questions, please contact us.

Sincerely,

George Lear, Chief
Operating Reactors Branch #3
Division of Operating Reactors

Enclosures:

1. Sample Technical Specification Language
2. 10 CFR 50a(g)

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Iowa Electric Light & Power Company - 3 -

cc:

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Mr. Dudley Henderson
Chairman, Linn County
Board of Supervisors
Cedar Rapids, Iowa 52406

ENCLOSURE

SAMPLE TECHNICAL SPECIFICATION LANGUAGE

The following language should be substituted, as appropriate, into the Technical Specifications where existing surveillance requirements are superseded by ASME Section XI inservice inspection and testing requirements:

- a. Inservice inspection of ASME Code Class 1, Class 2 and Class 3 components shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g), except where specific written relief has been granted by the NRC pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).
- b. Inservice testing of ASME Code Class 1, Class 2 and Class 3 pumps and valves shall be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code and applicable Addenda as required by 10 CFR 50, Section 50.55a(g), except where specific written relief has been granted by the NRC pursuant to 10 CFR 50, Section 50.55a(g)(6)(i).

(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^{3,4} in effect⁵ on the date of order⁶ of the pump or 12 months prior to the formal docket date of the application for 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 effect⁵ on the date of order⁶ of the valves or the Class I 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 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 Addenda⁷ in effect⁵ on the date of order⁶ 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^{3,4} 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

Code for Pumps and Valves for Nuclear Power and Addenda⁷ 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^{3,4} in effect⁵ on the date of order⁶ of the valve or 12 months prior to the formal docket date of the application for 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 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 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^{3,4} 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 facility whose construction 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^{3,4} 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^{3,4} 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^{3,4} 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 ASME Boiler and Pressure Vessel Code and Addenda^{3,4} 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 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^{3,4} 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 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

See page 50-14 for footnotes 1 through 6.

⁸Amended 41 FR 6256.

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 of pumps and valves for assessing operational readiness 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 of pumps and valves for assessing operational readiness 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 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 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.

(6)(i) The Commission will evaluate determinations under paragraph (g) (5) of this section that code requirements are impractical and may grant such relief 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 effect on the formal docket date 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.