

Mr. A. Alan Blind  
 Vice President, Nuclear Power  
 Consolidated Edison Company  
 of New York, Inc.  
 Broadway and Bleakley Avenue  
 Buchanan, NY 10511

September 2, 1999

**SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NO. 2 - ISSUANCE OF  
 AMENDMENT RE: ALLOWING REACTOR COOLANT SYSTEM (RCS)  
 HYDROSTATIC TESTING AT NORMAL OPERATING PRESSURE  
 (TAC NO. MA4679)**

Dear Mr. Blind:

The Commission has issued the enclosed Amendment No. 203 to Facility Operating License No. DPR-26 for the Indian Point Nuclear Generating Unit No. 2. The amendment consists of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated January 22, 1999.

The amendment revises TSs 4.3.a and 4.3.b and Basis Section 4.3 to permit RCS leak test to be performed at normal operating pressure following each refueling outage according to the requirements of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, and implemented in accordance with 10 CFR 50.55a(g).

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY:

Jefferey F. Harold, Project Manager, Section 1  
 Project Directorate I  
 Division of Licensing Project Management  
 Office of Nuclear Reactor Regulation

Docket No. 50-247

Enclosures: 1. Amendment No. 203 to DPR-26  
 2. Safety Evaluation

cc w/encls: See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

September 2, 1999

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Vice President, Nuclear Power  
Consolidated Edison Company  
of New York, Inc.  
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A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

A handwritten signature in cursive script that reads "Jeffrey F. Harold".

Jefferey F. Harold, Project Manager, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-247

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cc w/encls: See next page

**Indian Point Nuclear Generating Station  
Units 1/2**

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Buchanan, NY 10511**

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New York State Energy, Research,  
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UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

DOCKET NO. 50-247

INDIAN POINT NUCLEAR GENERATING UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 203  
License No. DPR-26

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Consolidated Edison Company of New York, Inc. (the licensee) dated January 22, 1999, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act) and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-26 is hereby amended to read as follows:

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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 203 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance to be implemented within 60 days.

FOR THE NUCLEAR REGULATORY COMMISSION



S. Singh Bajwa, Chief, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical  
Specifications

Date of Issuance: September 2, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 203

FACILITY OPERATING LICENSE NO. DPR-26

DOCKET NO. 50-247

Replace the following page of the Appendix A Technical Specifications with the attached revised page. The revised page is identified by amendment number and contain marginal lines indicating the areas of change.

Remove Page

4.3-1

Insert Page

4.3-1

## 4.3 REACTOR COOLANT SYSTEM INTEGRITY TESTING

### Applicability

Applies to test requirements for Reactor Coolant System integrity.

### Objective

To specify tests for Reactor Coolant System integrity after the system is closed following refueling, repair, replacement or modification.

### Specifications

- a. The Reactor Coolant System shall be tested for leakage at normal operating pressure prior to plant startup following each refueling outage, in accordance with the requirements of the applicable edition and addenda of the ASME Section XI Code.
- b. Testing of repairs, replacements or modifications for the Reactor Coolant System shall meet the requirements of the applicable edition and addenda of the ASME Section XI Code.
- c. The Reactor Coolant System leak test temperature-pressure relationship shall be in accordance with the limits of Figure 4.3-1 for heatup for the first 21.63 effective full-power years of operation. Figure 4.3-1 will be recalculated periodically. Allowable pressure during cooldown for the leak test temperature shall be in accordance with Figure 3.1.B-2.

### Basis

Leak test of the Reactor Coolant System is required by the ASME Boiler and Pressure Vessel Code, Section XI, to ensure leak tightness of the system during operation. The test frequency and conditions are specified in the Code.

For repairs on components, the thorough non-destructive testing gives a very high degree of confidence in the integrity of the system, and will detect any significant defects in and near the new welds. In all cases, the leak test will assure leak-tightness during normal operation.

The inservice leak temperatures are shown on Figure 4.3-1. The temperatures are calculated in accordance with ASME Code Section III, 1974 Edition, Appendix G and the methods



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 203 TO FACILITY OPERATING LICENSE NO. DPR-26  
CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
INDIAN POINT NUCLEAR GENERATING UNIT NO. 2  
DOCKET NO. 50-247

### 1.0 INTRODUCTION

By letter dated January 22, 1999, Consolidated Edison Company of New York, Inc. (Con Ed), the licensee, submitted a request for changes to the Indian Point Nuclear Generating Unit No. 2 (IP2) Technical Specifications (TSs). This application proposes to revise the IP2 TSs to permit the reactor coolant system (RCS) leak test to be performed at nominal operating pressure after it has been closed following normal opening according to the requirements of the American Society Mechanical Engineers Boiler and Pressure Vessel Code, Section XI, and implemented in accordance with 10 CFR 50.55a(g) in lieu of a hydrostatic test at 2335 psig.

### 2.0 DESCRIPTION OF CHANGE

This application for amendment to the IP2 TSs proposes to amend Section 4.3 and its Basis. The proposed changes are:

Revise the "Objective" of 4.3 from "To specify tests for Reactor Coolant System integrity after the system is closed following normal opening, modification or repair." by deleting "normal opening, modification or repair" and replace with, "To specify ----- refueling, repair, replacement or modification."

Revise Section 4.3.a to read, "The Reactor Coolant System shall be tested for leakage at normal operating pressure prior to plant startup following each refueling outage, in accordance with the requirements of the applicable edition and addenda of the ASME Section XI Code."

Revise Section 4.3.b to read, "Testing of repairs, replacements or modifications for the Reactor Coolant System shall meet the requirements of the applicable edition and addenda of the ASME Section XI Code."

Basis Section: Revise the first paragraph to read, "Leak test of the Reactor Coolant System is required by the ASME Boiler Pressure Vessel Code, Section XI, to ensure leak tightness of the system during operation. The test frequency and conditions are specified in the Code."

### 3.0 EVALUATION

The proposed change would permit the performance of the RCS leak test to be controlled by the ASME Code, Section XI, and implemented in accordance with 10 CFR 50.55a(g).

Accordingly, the proposed change would permit the use of a system leakage test at normal operating pressure in lieu of a hydrostatic test. Further, the change would limit the RCS leak test to each refueling outage, rather than any outage in which RCS boundary is opened for modification or repair. As per IWA-5211(a) and Table IWA-5210-1 of the Code, if the RCS is opened and closed without any modification or repair performed, no hydrostatic test will be required. Regarding Section 4.3.b, hydrostatic test of the RCS, or its components will be performed following repairs or modifications to the system boundary in accordance with the requirements of the applicable ASME Code, Section XI.

The NRC staff has previously evaluated the suitability of a system leakage test at normal operating pressure, as an alternative to a hydrostatic test and has approved Code Case N-498 which permits this alternative. Code Case N-498 has been incorporated in Regulatory Guide 1.147, Rev. 11. The staff, in its evaluation, considered that the RCS components are designed for a number of loadings that are postulated to occur under various conditions of plant operation and the hydrostatic test subjects these components to a small increase in pressure over the normal increase in pressure over the normal operating pressure. Therefore, it does not present a significant challenge to pressure boundary integrity. Hydrostatic testing is primarily regarded as a means to enhance leakage detection during the examination of components under pressure, rather than solely as a measure to determine the structural integrity of the components. Industry experience has demonstrated that leaks are not discovered as a result of hydrostatic test pressure propagating a pre-existing flaw through wall. In most cases, leaks are discovered when the system is at normal operating pressure. The system leakage test at normal operating pressure proposed in lieu of a hydrostatic test, will demonstrate leak-tightness of the RCS following each outage. Therefore, the proposed change to the TSs is acceptable.

#### 4.0 SUMMARY

The staff concludes that the proposed change to TS Section 4.3 provides reasonable assurance of operational readiness without reduction in plant safety and, therefore, the proposed change is acceptable. Based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by testing in the proposed manner, (2) such activities will be conducted in compliance with the applicable ASME Code, Section XI, that will be implemented in accordance with 10 CFR 50.55a(g) and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public, the proposed amendment to the TSs is acceptable.

## **5.0 STATE CONSULTATION**

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State official had no comments.

## **6.0 ENVIRONMENTAL CONSIDERATION**

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (64 FR 17023). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

## **7.0 CONCLUSION**

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: P. Patnaik

Date: September 2, 1999

**DATED:** September 2, 1999

**AMENDMENT NO. 203 TO FACILITY OPERATING LICENSE NO. DPR-26-INDIAN POINT  
UNIT 2**

**Docket File**

**PUBLIC**

**PDI-1 Reading**

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