April 24, 2007

Mr. Michael R. Kansler
President
Entergy Nuclear Operations, Inc.
440 Hamilton Avenue
White Plains, NY 10601

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT NO. 3 - RELIEF REQUEST (RR) NO. 3-42(A) (TAC NO. MD3352)

Dear Mr. Kansler:

By letter dated October 20, 2006, Entergy Nuclear Operations, Inc. (the licensee), submitted a request to use the 2001 Edition through the 2003 Addenda of Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) for repair and replacement activities at the Indian Point Nuclear Generating Unit No. 3 (IP3). The request would replace the current inservice inspection (ISI) Code of record which is the 1989 Edition for Class 1, 2, and 3 components and the 1998 Edition for Class MC and CC components. The authorization of the subsequent edition and addenda of the ASME Code will allow the use of the same rules for both IP3 and Indian Point Nuclear Generating Unit No. 2.

Paragraph 50.55a(g)(4)(iv) of Title 10 of the *Code of Federal Regulations* (10 CFR) states that inservice inspection of components and system pressure tests may meet the requirements set forth in subsequent editions and addenda of the ASME Code provided that they are incorporated by reference in 10 CFR 50.55a(b), subject to the limitations and modifications listed in 10 CFR 50.55a(b) and subject to Commission approval. Portions of editions or addenda may be used provided that all related requirements of the respective editions or addenda are met.

Based on the enclosed safety evaluation, the Nuclear Regulatory Commission staff concludes that the proposed request is acceptable and approves the use of the 2001 Edition through the 2003 Addenda to ASME Code, Section XI, for repair and replacement activities for the remainder of the third 10-year interval at IP3, which ends on July 21, 2009.

If you have any questions regarding this approval, please contact the Indian Point Project Manager, John Boska, at 301-415-2901.

Sincerely,

/RA/

Mark G. Kowal, Chief
Plant Licensing Branch I-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosure:
Safety Evaluation

cc w/encl: See next page

If you have any questions regarding this approval, please contact the Indian Point Project Manager, John Boska, at 301-415-2901.

Sincerely,

/RA/

Mark G. Kowal, Chief
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Enclosure:
Safety Evaluation

cc w/encl: See next page

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Indian Point Nuclear Generating Unit Nos. 2 & 3

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELIEF REQUEST 3-42(A)

ENTERGY NUCLEAR OPERATIONS, INC.

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

DOCKET NO. 50-286

1.0 INTRODUCTION

By letter dated October 20, 2006, Entergy Nuclear Operations, Inc. (the licensee), submitted a request to use the 2001 Edition through the 2003 Addenda of Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) for repair and replacement activities using ASME Code Part IWA-4000 at the Indian Point Nuclear Generating Unit No. 3 (IP3). The request would replace the current inservice inspection (ISI) Code of record which is the 1989 Edition, with no addenda, for Class 1, 2, and 3 components and the 1998 Edition, with no addenda, for Class MC and CC components. The approval of the subsequent edition and addenda of the ASME Code will allow the use of the same rules for both IP3 and Indian Point Nuclear Generating Unit No. 2 (IP2). This request is for the remainder of the third 10-year ISI interval at IP3, which began July 21, 2000, and is scheduled to end July 21, 2009.

The licensee submitted this request in accordance with the guidance provided in the Nuclear Regulatory Commission (NRC) Regulatory Issue Summary (RIS) 2004-16, dated October 19, 2004. In this RIS, the NRC staff stated that licensees who wish to use provisions of subsequent editions and addenda of the ASME Code, Section XI, for activities, including repair and replacement activities, must receive prior NRC approval as required by section 50.55a(g)(4)(iv) of Title 10 of the *Code of Federal Regulations* (10 CFR).

2.0 REGULATORY EVALUATION

Pursuant to 10 CFR 50.55a(g)(4), ASME Code Class 1, 2, and 3 components (including supports) shall meet the requirements, except the design and access provisions and the pre-service examination requirements, set forth in the ASME Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," to the extent practical within the limitations of design, geometry, and materials of construction of the components. Section 50.55a(g)(4)(ii) requires that ISI examination of components and system pressure tests conducted during successive 120-month inspection intervals must comply with the requirements in the latest edition and addenda of Section XI of the ASME Code incorporated by reference in 10 CFR 50.55a(b) 12 months prior to the start of the 120-month interval, subject to the limitations and modifications listed therein.

The repair, replacement, and modification of plant components are not explicitly mentioned in 10 CFR 50.55a(g)(4) and associated subparagraphs. However, these activities are specifically mentioned in ASME Code, Section XI. The NRC staff maintains that these activities are not separate and distinct but are included under inservice examinations. Therefore, the requirements of 10 CFR 50.55a(g)(4)(iv) are applicable to repair and replacement activities.

Section 50.55a(g)(4)(iv) states that inservice examination of components and system pressure tests may meet the requirements set forth in subsequent editions and addenda of the ASME Code provided that they are incorporated by reference in 10 CFR 50.55a(b), subject to the limitations and modifications listed in 10 CFR 50.55a(b), and subject to Commission approval. Portions of editions or addenda may be used provided that all related requirements of the respective editions or addenda are met. Currently, Section 50.55a(b)(2) incorporates by reference the ASME Code, Section XI, 1970 Edition through the 1976 Winter Addenda, and the 1977 Edition (Division 1) through the 2003 Addenda (Division 1), which includes the 2001 Edition through the 2003 Addenda of the ASME Section XI Code proposed by the licensee.

3.0 REQUEST TO USE A SUBSEQUENT EDITION AND ADDENDA TO ASME CODE SECTION XI FOR REPAIR AND REPLACEMENT ACTIVITIES

3.1 ASME Code Component(s) Affected

All Class 1, 2, and 3 components within the ASME Code, Section XI pressure boundary at IP3. Class MC and CC containment liner and concrete within the ASME Code, Section XI boundary at IP3.

3.2 Applicable Code Requirements

The Code of record for Section XI of the ASME Code for IP3 is the 1989 Edition, with no addenda, for Class 1, 2, and 3 components and 1998 Edition, with no addenda, for Class MC and CC components.

3.3 Proposed Subsequent Code Edition and Requirements

The licensee proposes to use the 2001 Edition through the 2003 Addenda of the ASME Code, Section XI for repair and replacement activities in IWA-4000. This ASME Code edition is approved for use pursuant to 10 CFR 50.55a(b)(2). The use of the 2001 Edition through the 2003 Addenda will allow the licensee to use the same rules for both IP2 and IP3.

3.4 Related Requirements

10 CFR 50.55a(b)(2) states:

> As used in this section, references to Section XI of the ASME Boiler and Pressure Vessel Code refer to Section XI, and include the 1970 Edition through the 1976 Winter Addenda, and the 1977 Edition (Division 1) through the 2003 Addenda (Division 1), subject to the following limitations and modifications.

The limitations, conditions or modifications affecting the use of IWA-4000 of the 2001 Edition, through the 2003 Addenda of Section XI are as follows:

10 CFR 50.55a(b)(2)(xii) *Underwater Welding*. The provisions of IWA-4660, "Underwater Welding," are not approved for use on irradiated material.

10 CFR 50.55a(b)(2)(xiii) *Mechanical Clamping Devices*. Licensees may use the provisions of Code Case N-523-1, "Mechanical Clamping Devices for Class 2 and 3 Piping." Licensee choosing to apply Code Case N-523-1 shall apply all of its provisions.

10 CFR 50.55a(b)(2)(xix) *Substitution of alternative methods*. The provisions in IWA-4520(c) allowing the substitution of alternative examination methods, a combination of methods, or newly developed techniques for the methods in the Construction Code are not approved for use.

10 CFR 50.55a(b)(2)(xxiii) *Evaluation of Thermally Cut Surfaces.* The use of the provisions for eliminating mechanical processing of thermally cut surfaces in IWA-4461.4.2 are prohibited.

10 CFR 50.55a(b)(2)(xxv) *Mitigation of Defects By Modification*. The use of the provisions in IWA-4340, "Mitigation of Defects by Modification," are prohibited.

10 CFR 50.55a(b)(2)(xxvi) *Pressure Testing Class 1, 2, and 3 Mechanical Joints*. The repair and replacement activity provisions in IWA-4540(c) of the 1998 Edition of Section XI for pressure testing Class 1, 2, and 3 mechanical joints must be applied.

4.0 STAFF EVALUATION

The NRC staff evaluated the licensee's request to use criteria contained in 10 CFR 50.55a(g)(4)(iv), which states that inservice examination of components and system pressure tests may meet the requirements set forth in subsequent editions and addenda of the ASME Code provided certain criteria are satisfied.

The first criterion is that the proposed edition and addenda is incorporated by reference in 10 CFR 50.55a(b). Currently, Section 50.55a(b)(2) incorporates by reference the ASME Code, Section XI, 1970 Edition through the 1976 Winter Addenda, and the 1977 Edition (Division 1) through the 2003 Addenda (Division 1), which includes the 2001 Edition through the 2003 Addenda of the ASME Section XI Code proposed by the licensee. Therefore, the NRC staff finds that the first criterion has been satisfied.

The second criterion is that the limitations and modifications listed in 10 CFR 50.55a(b) are satisfied for the specific use of the proposed subsequent ASME Code edition and addenda. The licensee has satisfactorily identified the restrictions on the use of ASME Code, Section XI, 2001 Edition through 2003 Addenda specified in 10 CFR 50.55a(b) in its submittal of October 20, 2006. Therefore, the NRC staff finds that the second criterion has been satisfied.

The third criterion is that if portions of subsequent Code editions or addenda are used, all related requirements of the respective editions or addenda must be met. The NRC staff is satisfied that the licensee has listed all related requirements in the 2001 Edition through the 2003 Addenda of the ASME Code, Section XI that are relevant to repair and replacement activities. Therefore, the NRC staff finds that the third criterion has been satisfied.

Based on the above, the NRC staff finds that the criteria of 10 CFR 50.55a(g)(4)(iv) are satisfied and that the licensee's request to use the 2001 Edition through the 2003 Addenda of Section XI of the ASME Code for repair and replacement activities in IWA-4000 is acceptable.

5.0 CONCLUSION

The NRC staff concludes that the proposed request to use the 2001 Edition through the 2003 Addenda of Section XI to the ASME Code, for repair and replacement activities in IWA-4000, addresses all related requirements and associated modifications and limitations in 10 CFR 50.55a(b). Therefore, pursuant to 10 CFR 50.55a(g)(4)(iv), the NRC staff approves the use of the 2001 Edition through the 2003 Addenda of Section XI of the ASME Code for repair and replacement activities in IWA-4000 as modified by 10 CFR 50.55a for the remainder of the third 10-year ISI interval at IP3. All other requirements of the ASME Code, Section XI, for which relief has not been specifically requested and approved remain applicable, including third party review by the Authorized Nuclear Inservice Inspector.

Principal Contributor: K. Hoffman

Date: April 24, 2007