

October 17, 2006

Mr. Mano K. Nazar
Senior Vice President and
Chief Nuclear Officer
Indiana Michigan Power Company
Nuclear Generation Group
One Cook Place
Bridgman, MI 49106

SUBJECT: D. C. COOK NUCLEAR PLANT, UNITS 1 AND 2 - REVISED SAFETY
EVALUATION REGARDING USE OF A SUBSEQUENT EDITION OF
AMERICAN SOCIETY OF MECHANICAL ENGINEERS CODE FOR INSERVICE
INSPECTION REQUIREMENTS (TAC NOS. MD2885 AND MD2886)

Dear Mr. Nazar:

By letter dated August 23, 2006, Indiana Michigan Power Company, LLC (I&M) submitted a request to use the 2001 Edition, no Addenda, to American Society of Mechanical Engineers Code Section XI, for repair and/or replacement activities. The NRC staff issued the requested approval on September 20, 2006.

Subsequent to issuance of the approval, your staff determined that a design change is necessary, thus leading to a different piping diameter than what was stated in the August 23, 2006 request. On October 12, 2006, I&M submitted a revised request, changing the piping size from "3/4 inch diameter" to "nominal 2-inch diameter or less."

The NRC staff reviewed the revised piping size and determined that the revision does not change its evaluation and conclusion. Accordingly, the NRC staff has only revised Pages 1 and 2 of the September 20, 2006, safety evaluation to reflect the submittal of I&M's October 12, 2006, letter, and to reflect the updated piping size.

Sincerely,

/RA/

Peter S. Tam, Senior Project Manager
Plant Licensing Branch III-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

Enclosure: Revised Pages 1 and 2 of Safety Evaluation

cc w/encl: See next page

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DATE	10/13/06	10/13/06	10/13/06	10/13/06	10/17/06

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

REQUEST TO USE A SUBSEQUENT EDITION AND ADDENDA

TO AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME) CODE

FOR REPAIR/REPLACEMENT ACTIVITIES

INDIANA MICHIGAN POWER COMPANY, LLC

DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2 (DCCNP-1 AND DCCNP-2)

DOCKET NOS. 50-315 AND 50-316

1.0 INTRODUCTION

By letter dated August 23, 2006 (Accession No. ML062430325), as supplemented by letter dated October 12, 2006, Indiana Michigan Power Company (the licensee) submitted a request to use the 2001 Edition, no Addenda, to American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (Code) Section XI for repair/replacement activities. The current inservice inspection (ISI) Code of record is the 1989 Edition for DCCNP-1 and DCCNP-2. Authorization of the subsequent edition and addenda of the ASME Code will allow qualification of the thermal metal removal process, avoiding the need to mechanically remove additional material from the processed areas that would be required under the current ISI Code of record.

The licensee submitted this request in accordance with the guidance provided in 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/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 REQUIREMENTS

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 from, but are included under, inservice examinations. Therefore, the requirements of 10 CFR 50.55a(g)(4)(iv) are applicable to repair/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 NRC 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 from the 1970 Edition through the 1976 Winter Addenda, and the 1977 Edition (Division 1) through the 2003 Addenda (Division 1).

3.0 TECHNICAL EVALUATION

3.1 ASME Code Component(s) Affected

The ASME Code components affected are the new nominal 2-inch-diameter or less piping nozzles and resistance temperature detector (RTD) thermowell bosses to be installed and the existing RTDs that will be modified in the reactor coolant system of both units.

3.2 Applicable Code Requirements

The current ASME Section XI Code of record for the DCCNP-1 and DCCNP-2 is the 1989 Edition. The applicable code requirements in the 1989 Edition for thermal metal removal processes are as follows:

IWA-4322, "Process Requirements for P-No. 8 and P-No. 43 Materials"

If thermal removal processes are used on P-No. 8 and P-No. 43 materials, a minimum of 1/16 in. shall be mechanically removed from the thermally processed area.

3.3 Proposed Subsequent Code Edition and Requirements

The licensee proposes to use the 2001 Edition, no Addenda, of the ASME Code Section XI for repair/replacement activities. This Code edition is approved for use pursuant to 10 CFR 50.55a(b)(2). The use of the 2001 Edition, no Addenda, will allow the licensee to qualify the thermal metal removal process to be used, electro-discharge machining, as an alternative to mechanical removal of additional material from the processed areas. The applicable requirements from the 2001 Edition of the ASME Code, Section XI, are as follows:

IWA-4461.3, "P-Nos. 8 and 43 Materials"

If thermal removal processes are used on P-No. 8 and P-No. 43 materials, at least 1/16 in. (1.6 mm) of material shall be mechanically removed from the thermally processed area.

Donald C. Cook Nuclear Plant, Units 1 and 2

cc:

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