

April 21, 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: DONALD C. COOK NUCLEAR PLANT, UNITS 1 AND 2 (DCCNP-1 AND  
DCCNP-2)- RELIEF REQUEST CISIR-05 REGARDING CONTAINMENT  
INSPECTION REQUIREMENTS (TAC NOS. MC9571 AND MC9572)

Dear Mr. Nazar:

By letter dated November 2, 2005, Indiana Michigan Power Company submitted Relief Request CISIR-19 for DCCNP-1 and DCCNP-2. The relief request relates to an alternative to the American Society of Mechanical Engineers Code (ASME Code), Section XI containment examination requirements for the first 10-year containment inservice inspection (CISI) program interval.

The Nuclear Regulatory Commission (NRC) staff has completed its review of Relief Request CISIR-05. Details of the NRC staff's review are set forth in the enclosed safety evaluation. Accordingly, the NRC staff concludes that your proposed alternative to use a general visual examination in accordance with Paragraph IWE-3510.1, utilizing personnel certified to Standard CP-189, in lieu of the Code-required VT-3 examination, for the first 10-year CISI at DCCNP-1 and DCCNP-2, will provide an acceptable level of quality and safety.

Therefore, pursuant to 10 CFR 50.55a(a)(3)(i), the proposed alternative is authorized for the first 10-year CISI interval at DCCNP-1 and DCCNP-2. If you have any questions, please call the Project Manager, Mr. Peter Tam at 301-415-1451.

Sincerely,

**/RA/**

L. Raghavan, Branch Chief  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

Enclosure:  
As stated

cc w/encl: See next page

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

INSERVICE INSPECTION PROGRAM RELIEF REQUEST CISIR-05

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

INDIANA MICHIGAN POWER COMPANY

DOCKET NOS. 50-315 AND 50-316

1.0 INTRODUCTION

By letter dated November 2, 2005 (Agencywide Document Access and Management System (ADAMS) Accession No. ML053200157), Indiana Michigan Power Company (I&M, the licensee) submitted Relief Request CISIR-05 for the DCCNP-1 and DCCNP-2, proposing an alternative to the American Society of Mechanical Engineers Code (ASME Code), Section XI containment examination requirements for the first 10-year containment inservice inspection (ISI) program interval, in accordance with 10 CFR 50.55a(a)(3)(i). The licensee proposed the use of a general visual examination in lieu of the Code-required VT-3 examination. The Nuclear Regulatory Commission (NRC) staff's evaluation of the proposed alternative is set forth below.

2.0 REGULATORY EVALUATION

In the *Federal Register* (61 FR 41303) dated August 8, 1996, the Commission amended Title 10 of the *Code of Federal Regulations* (CFR) Section 50.55a to incorporate by reference the 1992 Edition through the 1992 Addenda of the ASME Code, Section XI. Subsections IWE and IWL of the ASME Code, Section XI provide the requirements for ISI of Class CC (concrete containment) and Class MC (metallic containment) of light-water cooled power plants. Pursuant to 10 CFR 50.55a(a)(3) and (g)(5), a licensee may propose alternatives to the requirements of the regulation.

3.0 TECHNICAL EVALUATION

3.1 Code Requirement

ASME Code Section XI, 1992 Edition, 1992 Addenda, Subsection IWE, Table IWE-2500-1, Examination Category E-A, "Containment Surfaces," Item E1.12, requires a 100 percent VT-3 examination of accessible surface areas of the containment vessel at the end of the 10-year ISI interval.

### 3.2 Proposed Alternative

As an alternative to the ASME Code Section XI, 1992 Edition, 1992 Addenda, requirements for a 100 percent VT-3 examination, I&M proposes to perform a general visual examination in accordance with paragraph IWE-3510.1 of the accessible surface areas of the containment. When evidence of degradation is detected, a detailed visual examination will be performed of the suspect area. If a detailed visual examination cannot be performed, the suspect area will be evaluated and dispositioned by a responsible engineer. The general and/or detailed visual examinations will be performed by personnel certified in accordance with American National Standards Institute/American Society for Nondestructive Testing Standard CP-189, ASNT Standard for Qualification and Certification of Nondestructive Testing Personnel (CP-189).

### 3.3 Basis for the proposed alternative

In the November 2, 2005, application the licensee stated:

Pursuant to 10 CFR 50.55a(a)(3)(i), an alternative examination is proposed on the basis that the proposed alternative to the ASME Section XI Code requirements provides an acceptable level of quality and safety.

The Section XI (VT-3) requirements were developed for detecting flaws in metal components and are more stringent than those that would be required for the detection of degradation of containment surface areas due to corrosion. Corrosion of the base metal is the primary issue of concern for containment surface areas, and controls have been established for the performance of a general visual examination to detect age-related degradation mechanisms that may affect the structural integrity and/or leak-tightness of the containment. The alternative examination proposes that a general visual examination be performed of accessible areas by examiners qualified in accordance with CP-189. If an area is determined to be suspect during the general visual examination, additional actions will be taken.

The general visual examination will be performed in accordance with Paragraph IWE-3510.1. When evidence of degradation is detected by the examiner, a detailed visual examination will be performed to determine the magnitude and extent of any deterioration and distress of suspect containment surfaces. If a detailed visual examination cannot be performed, the acceptability of the suspect area will be evaluated. The evaluation will address the requirements outlined in 10 CFR 50.55a(b)(2)(ix)(A).

The general and/or detailed examination will be performed by personnel certified and qualified in accordance with CP-189 and IWA-2320. This level of certification will verify that the capability and visual acuity of the examiners are sufficient to detect evidence of potential degradation of the containment accessible surface areas.

### 3.4 NRC Staff's Evaluation

I&M proposed to use a general visual examination in accordance with paragraph IWE-3510.1 of the accessible surface areas of the containment, in lieu of meeting the ASME Code requirements to perform a 100 percent VT-3 examination of accessible surface areas of the containment vessel at the end of the 10-year ISI interval.

The NRC staff finds that the visual examination (VT-3) specified in Examination Category E-A, Item E1.12 requires that the visual examination meet the requirements of Subarticle IWA-2200. The requirements specified in Subarticle IWA-2200 were developed for detecting flaws in metal components and, as a result, are more stringent than requirements for detecting degradation such as corrosion. The NRC staff also finds that I&M has committed that when evidence of degradation is detected, a detailed visual examination will be performed of the suspect area. If a detailed visual examination cannot be performed, the suspect area will be evaluated and dispositioned by a responsible engineer. The general and/or detailed visual examinations will be performed by personnel certified in accordance with CP-189.

As discussed above, the NRC staff concludes that the alternative examination proposed by I&M will provide an acceptable level of quality and safety for protecting the containment pressure boundary integrity. On this basis, I&M's proposed alternative is authorized pursuant to 10 CFR 50.55a(a)(3)(i) for the first inspection interval for containment inspections.

### 4.0 CONCLUSION

Based on its review of the proposed alternative to the ASME Code, Section XI containment examination requirements for the first 10-year containment ISI program interval, the NRC staff concludes that the proposed alternative provide an acceptance level of quality and safety. Therefore, the proposed alternative is authorized pursuant to 10 CFR 50.55a(a)(3)(i).

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Date: April 21, 2006

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