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November 2, 2005

AEP:NRC:5055-12  
10 CFR 50.55a

Docket Nos.: 50-315  
50-316

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Mail Stop O-P1-17  
Washington, DC 20555-0001

Donald C. Cook Nuclear Plant Units 1 and 2  
PROPOSED ALTERNATIVE TO THE  
AMERICAN SOCIETY OF MECHANICAL ENGINEERS CODE, SECTION XI  
CONTAINMENT INSPECTION REQUIREMENTS

Pursuant to 10 CFR 50.55a(a)(3)(i), Indiana Michigan Power Company (I&M), the licensee for Donald C. Cook Nuclear Plant Units 1 and 2, requests Nuclear Regulatory Commission approval of 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 program interval.

The attachment to this letter provides a proposed alternative to the containment examination requirements of the 1992 edition with 1992 addenda of the ASME Code, Section XI, Table IWE-2500-1, Examination Category E-A, Item E1.12 (end-of-interval accessible surface area examination). I&M proposes the use of a general visual examination in lieu of the code required VT-3 examination.

I&M requests approval of the proposed alternative by July 31, 2006, to support planning for the Unit 2, Cycle 17 refueling outage scheduled to begin in the fall of 2007. This letter contains no new commitments. Should you have any questions, please contact Mr. John A. Zwolinski, Director of Safety Assurance at (269) 466-2428.

Sincerely,

A handwritten signature in black ink, appearing to read "Daniel P. Fadel".

Daniel P. Fadel  
Engineering Vice President

RV/rdw

A047

Attachment: 10 CFR 50.55a Relief Request – CISIR-05, Proposed Alternative in Accordance with  
10 CFR 50.55a(a)(3)(i)

c: R. Aben – Department of Labor and Economic Growth  
J. L. Caldwell – NRC Region III  
K. D. Curry – AEP Ft. Wayne, w/o attachment  
J. T. King – MPSC, w/o attachment  
MDEQ – WHMD/RPMWS, w/o attachment  
NRC Resident Inspector  
D. W. Spaulding – NRC Washington DC

10 CFR 50.55a RELIEF REQUEST – CISIR-05  
PROPOSED ALTERNATIVE IN ACCORDANCE WITH 10 CFR 50.55a(a)(3)(i)

## **1.0 COMPONENT IDENTIFICATION**

Code Class: MC / CC  
Examination Category: E-A  
Examination Item Numbers: E1.12  
Description: Class MC pressure retaining components and metallic shell and penetration liners of Class CC components.

## **2.0 APPLICABLE CODE AND ADDENDA**

American Society of Mechanical Engineers (ASME) Code, Section XI, 1992 Edition with 1992 Addenda.

## **3.0 CODE REQUIREMENTS**

The ASME Code, 1992 Edition with the 1992 Addenda, Section XI, Subsection IWE, Table IWE-2500-1, "Examination Categories," Examination Category E-A, "Containment Surfaces," Item No. E1.12 requires a VT-3 visual examination of accessible surface areas of Class MC pressure retaining components and metallic shell and penetration liners of Class CC components at the end of the 10-year inservice inspection interval.

## **4.0 CODE REQUIREMENTS FOR WHICH AN ALTERNATIVE IS PROPOSED**

An alternative is proposed to the ASME Code Section XI, 1992 Edition, Table IWE-2500-1, Examination Category E-A, Item No. E1.12: Requirement to perform a VT-3 visual examination of accessible surface areas of Class MC pressure retaining components and metallic shell and penetration liners of Class CC components at the end of the 10-year inservice inspection interval.

## **5.0 PROPOSED ALTERNATIVE PROVISIONS**

As an alternative to the ASME Section XI, 1992 Edition, 1992 Addenda, requirements for a VT-3 examination, a general visual examination in accordance with Paragraph IWE-3510.1 of the accessible surface areas of the containment will be performed. 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 Examination Standard CP-189 (CP-189).

## **6.0 BASIS FOR THE PROPOSED ALTERNATIVE**

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.

## **7.0 PERIOD FOR WHICH THE PROPOSED ALTERNATIVE IS REQUESTED**

The alternative is proposed for the first 10-year inspection interval of the Containment Inservice Inspection Program for Donald C. Cook Nuclear Plant Unit 1 and Unit 2.

## **8.0 PRECEDENTS**

Similar requests have been approved for the Edwin I. Hatch Nuclear Plant, Units 1 and 2 (Reference 1) and Fort Calhoun Nuclear Station, Unit 1 (Reference 2).

## 9.0 REFERENCES

1. Letter from Richard L. Emch, Nuclear Regulatory Commission (NRC), to H. I. Summer, Jr., Southern Nuclear Operating Company, Inc., "Edwin I. Hatch Nuclear Plant, Units 1 and 2 Re: Evaluation of Relief Requests RR-MC-8, RR-MC-9, and RR-12: Implementation of Subsections IWE and IWL of ASME Section XI for Containment Inspection (TAC Nos. MA9569 and MA970)," Accession Number ML003757364, dated October 4, 2000.
2. Letter from Stephen Dembek, NRC, to S. K. Gambhir, Omaha Public Power District, "Fort Calhoun Station, Unit No. 1 – Evaluation of Relief Request Nos. IWE-001 through IWE-007: Implementation of ASME Section XI for Containment Inspection (TAC No. MA8900)," Accession Number ML010580456, dated February 27, 2001.