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AEP:NRC:6055-01
10 CFR 50.55a

Docket Nos.: 50-315
50-316

U. S. Nuclear Regulatory Commission
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Washington, DC 20555-0001

Donald C. Cook Nuclear Plant Unit 1 and Unit 2
PROPOSED USE OF PORTION OF SUBSEQUENT
AMERICAN SOCIETY OF MECHANICAL ENGINEERS CODE EDITION
FOR IN-SERVICE TEST REQUIREMENTS
(TAC NOS. MD0247 and MD0248)

Reference: Letter from G. H. Marcus, U. S. Nuclear Regulatory Commission (NRC), to E. E. Fitzpatrick, Indiana Michigan Power Company (I&M), "Evaluation of Third 10-Year Interval for the Pump and Valve Inservice Testing Program for Donald C. Cook Nuclear Plant, Units 1 and 2 (TAC Nos. M95721, M95722, M95890, and M95891)," dated May 27, 1997.

Pursuant to 10 CFR 50.55a(f)(4)(iv), I&M requests NRC approval to implement a portion of an American Society of Mechanical Engineers (ASME) Code edition that was incorporated into 10 CFR 50.55a(b) subsequent to the edition and addenda used in the current 10-Year inservice testing (IST) program for the Donald C. Cook Nuclear Plant (CNP). I&M requests NRC approval to implement ASME OM Code-2001, Section ISTB-6200, "Corrective Action," and Section ISTB 6300, "Systematic Error," in lieu of ASME/ANSI OMa-1988, Part 6, "Analyses and Evaluation," Subsection 6.1, "Acceptance Criteria," as modified by approved Relief Request P-3.

As approved in the referenced letter, the current (third 10-Year interval) ASME IST program for CNP requires that pump test results meet the requirements of ASME/ANSI OMa-1988. Subsection 6.1 of ASME/ANSI OMa-1988 requires that if test result deviations fall within the "Alert" range, the pump testing frequency must be doubled until the cause of the deviation is determined and corrected. Subsection 6.1 of ASME/ANSI OMa-1988 also requires that if test result deviations fall within the "Action" range, the pump must be declared inoperable until the cause of the deviation is determined and corrected. Relief Request P-3 (approved in the referenced letter) modified the requirements of Subsection 6.1 such that a pump with test results in the Action range must be declared inoperable until the cause of the deviation is determined and corrected, or an

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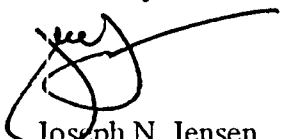
analysis of the pump is performed and new reference values are established. However, Relief Request P-3 did not address establishment of new reference values for a pump with test result deviations that fall within the Alert range.

The provisions of 10 CFR 50.55a(f)(4)(iv) allow licensees to use requirements of an edition of the ASME Code subsequent to that approved for their current 10-Year IST program, with NRC approval, if the subsequent ASME Code edition has been incorporated by reference into Section 50.55a(b) of the Code of Federal Regulations. ASME OM Code-2001 was incorporated, by reference, into Section 50.55a(b) of the Code of Federal Regulations on November 1, 2004, as stated in Federal Register notice 69 FR 58804. In accordance with ASME OM Code-2001, Section ISTB-6200, Subparagraph (c), new reference values may be established, based on an analysis, for pumps with test result deviations in the Alert range as well as the Action range. I&M is requesting NRC approval to implement ASME OM Code-2001, Section ISTB-6200, so that it may use the option for pumps with test result deviations in the Alert or Action range. I&M is also requesting NRC approval to implement ASME OM Code-2001, Section ISTB-6300, since it is related to Section ISTB-6200.

I&M requests approval to implement ASME OM Code-2001, Sections ISTB-6200 and ISTB-6300, by March 17, 2006. Approval by this date will allow I&M the option of establishing new reference values for the Unit 2 West essential service water (ESW) pump, which has test result deviations that fall within the Alert range, rather than performing increased frequency testing. Testing of the pump may cause instability in the Unit 2 reactor coolant pump (RCP) No. 21 seal leak-off flow. This RCP seal leak-off flow has been exhibiting instability in response to temperature changes, particularly changes in the temperature of the component cooling water (CCW) system, which cools the seal injection water heat exchanger. Testing of the Unit 2 West ESW pump would result in temperature changes in the CCW system. These temperature changes could result in additional instances of RCP seal leak-off flow instability. Should the seal instabilities become excessive, a prompt plant shutdown may be required. I&M intends to correct the seal leak-off instability during the spring 2006 Unit 2 refueling outage. Approval to use the subsequent ASME Code edition by March 17, 2006, will allow the option of establishing new reference values for the Unit 2 West ESW pump prior to its next required test, which is due shortly before the scheduled start of the outage.

The attachment to this letter provides I&M's request to implement ASME OM Code-2001, Sections ISTB-6200 and ISTB-6300. This letter contains no new regulatory commitments. Should you have any questions, please contact Mr. Michael K. Scarpello, Regulatory Affairs Supervisor, at (269) 466-2649.

Sincerely



Joseph N. Jensen
Site Vice President

JRW/jen

Attachment: 10 CFR 50.55a Request REL-PP6

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

Attachment to AEP:NRC:6055-01

10 CFR 50.55a Request REL-PP6

Request in Accordance with 10 CFR 50.55a(f)(4)(iv) for
Use of Subsequent American Society of Mechanical Engineers
(ASME) Code Edition

Use of Analysis as a Corrective Action

1. ASME Components Affected

All pumps in the Inservice Test (IST) Program

2. Applicable Code Edition and Test Requirement

ASME/ANSI OM-1987, OMa-1988 Addenda, Part 6, Paragraph 6.1, "Acceptance Criteria," which states:

If deviations fall within the alert range of Table 3, the frequency of testing specified in para. 5.1 shall be doubled until the cause of the deviation is determined and the condition corrected. If deviations fall within the required action range of Table 3, the pump shall be declared inoperable until the cause of the deviation has been determined and the condition corrected.

When a test shows deviations outside of the acceptable range of Table 3, the instruments involved may be recalibrated and the test rerun.

Table 3
[Not Shown]

The above requirements were modified by Relief Request P-3, which was approved by the NRC as documented in the below referenced letter. As stated in the referenced letter, Relief Request P-3 allowed the following alternate testing:

OM-1995, Subsection ISTB 6.2.2, "Action Range," (will be implemented for the IST of safety-related pumps). If the measured test parameter values fall within the required action range of Table ISTB 5.2.1-1 or Table ISTB 5.2.1-2, as applicable, the pump shall be declared inoperable until either the cause of the deviation has been determined and the condition is corrected, or an analysis of the pump is performed and new reference values are established in accordance with paragraph ISTB 4.6.

3. Proposed Subsequent Code Edition (Portion)

In lieu of the above requirements, I&M proposes to implement ASME OM Code-2001, Sections ISTB-6200 and ISTB-6300. Section ISTB-6200, "Corrective Action," states:

(a) Alert Range. If the measured test parameter values fall within the alert range of Table ISTB-5100-1, Table ISTB-5200-1, Table ISTB-5300-1, or Table ISTB-5300-2, as applicable, the frequency of testing specified in ISTB-3400 shall be doubled until the cause of the deviation is determined and the condition is corrected.

(b) Action Range. If the measured test parameter values fall within the required action range of Table ISTB-5100-1, Table ISTB-5200-1, Table ISTB-5300-1, or Table ISTB-5300-2, as applicable, the pump shall be declared inoperable until either the cause of the deviation has been determined and the condition is corrected, or an analysis of the pump is performed and new reference values are established in accordance with ISTB-6200(c).

(c) New Reference Values. In cases where the pump's test parameters are within either the alert or required action ranges of Table ISTB-5100-1, Table ISTB-5200-1, Table ISTB-5300-1, or Table ISTB-5300-2, as applicable, and the pump's continued use at the changed values is supported by an analysis, a new set of reference values may be established. This analysis shall include verification of the pump's operational readiness. The analysis shall include both a pump level and a system level evaluation of operational readiness, the cause of the change in pump performance, and an evaluation of all trends indicated by available data. The results of this analysis shall be documented in the record of tests (See ISTB-9000).

Section ISTB-6300, "Systematic Error," states:

When a test shows measured parameter values that fall outside of the acceptable range of Table ISTB-5100-1, Table ISTB-5200-1, Table ISTB-5300-1, or Table ISTB-5300-2, as applicable, that have resulted from an identified systematic error, such as improper system lineup or inaccurate instrumentation, the test shall be rerun after correcting the error.

When applying the requirements of ISTB 6200, Table ISTB-5100-1, Table ISTB-5200-1, Table ISTB-5300-1, or Table ISTB-5300-2, as applicable, the Group A test acceptance criteria will be used since all pumps are treated as Group A pumps by ASME/ANSI OMa-1988. When applying the requirements of Table ISTB-3400-1, which is referenced by Section ISTB-3400, only the "Group A Test Frequency" will be used.

Approval is requested pursuant to 10 CFR 50.55a(f)(4)(iv) as a proposed use of a portion of a subsequent edition of the ASME OM Code that has been incorporated by reference into 10 CFR 50.55a(b). The proposed subsequent ASME Code edition was incorporated by

reference into 10 CFR 50.55a(b) on November 1, 2004, as stated in Federal Register notice 69 FR 58804.

4. Related Requirements

No modifications or limitations are listed in 10 CFR 50.55a(b) that pertain to the section requested for use. There is no information in the Federal Register Statement of Consideration for the proposed incorporation, by reference, of ASME OM Code-2001 into 10 CFR 50.55a(b) that is pertinent to the section requested for implementation. I&M is requesting NRC approval to implement ASME OM Code-2001, Section ISTB-6300, since it is related to requirements in Section ISTB-6200. There are no other related requirements elsewhere in the ASME Code edition requested for implementation.

5. Duration of Proposed Request

Use of this portion of the 2001 ASME OM Code is requested for the remaining duration of the Third 10-Year IST Interval (through June 30, 2006). This request, when approved, will supersede the current Third Ten Year Interval Relief Request P-3.

6. Reference

Letter from G. H. Marcus, U. S. Nuclear Regulatory Commission, to E. E. Fitzpatrick, Indiana Michigan Power Company, "Evaluation of Third 10-Year Interval for the Pump and Valve Inservice Testing Program for Donald C. Cook Nuclear Plant, Units 1 and 2 (TAC Nos. M95721, M95722, M95890, and M95891)," dated May 27, 1997.