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 AUTH. NAME      AUTHOR AFFILIATION  
 FITZPATRICK, E.      Indiana Michigan Power Co. (formerly Indiana & Michigan Ele  
 RECIP. NAME      RECIPIENT AFFILIATION  
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SUBJECT: Application for amends to licenses DPR-58 & DPR-74, modifying  
 TS 3/4.6.1.2, 3/4.6.1.3, 3/4.6.1.6 & 3/4.6.1.6 to require  
 Types A, B & C tests (overall integrated & local containment  
 leakage rate) to be performed per 10CFR50, App J Option B.

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**INDIANA  
MICHIGAN  
POWER**

December 19, 1995

AEP:NRG:1215B

Docket Nos.: 50-315  
50-316

U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D. C. 20555

Gentlemen:

Donald C. Cook Nuclear Plant Units 1 and 2  
PROPOSED AMENDMENT TO TECHNICAL SPECIFICATION SECTIONS  
3/4.6.1.2, 3/4.6.1.3, 3/4.6.1.6, AND 3/4.6.1.7 FOR CONTAINMENT  
LEAKAGE AND INSPECTION REQUIREMENTS

This letter and its attachments constitute an application for amendment to the technical specifications (T/Ss) for Donald C. Cook Nuclear Plant units 1 and 2. Specifically, we are proposing to modify T/Ss 3/4.6.1.2, 3/4.6.1.3, 3/4.6.1.6, and 3/4.6.1.7 by replacing the existing (Option A) scheduling requirements for Types A, B, and C tests (overall integrated and local containment leakage rate) with a requirement to perform Types A, B, and C testing in accordance with 10 CFR 50 Appendix J Option B. The final rule for Appendix J Option B was published in the Federal Register on September 26, 1995, (60 FR 49495) and was effective October 26, 1995. The rule provides a performance-based option for leakage-rate testing of light water reactor containments. The changes are consistent with guidance provided in SECY-95-181, Rulemaking Issue Affirmation, dated July 17, 1995, from James M. Taylor to the Commissioners. The changes being proposed were also discussed with Mr. J. B. Hickman in a November 17, 1995, teleconference.

Attachment 1 provides a detailed description of the proposed changes, the justification for the changes, and our determination of no significant hazards consideration performed pursuant to 10 CFR 50.92. Attachment 2 contains the existing T/S pages marked to reflect the proposed changes. Attachment 3 contains the proposed T/S pages.

We believe the proposed changes will not result in (1) a significant change in the types of any effluent that may be released offsite, or (2) a significant increase in individual or cumulative occupational radiation exposure.

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U.S. Nuclear Regulatory Commission  
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These proposed changes have been reviewed by the Plant Nuclear Safety Review Committee and the Nuclear Safety and Design Review Committee.

In compliance with the requirements of 10 CFR 50.91(b)(1), copies of this letter and its attachments have been transmitted to the Michigan Public Service Commission and to the Michigan Department of Public Health.

We request NRC approval of the proposed amendment by February 28, 1996, to facilitate scheduling of work for the March 1996 outage on Cook Nuclear Plant Unit 2.

Sincerely,

*E. E. Fitzpatrick for*

E. E. Fitzpatrick  
Vice President.

SWORN TO AND SUBSCRIBED BEFORE ME

THIS 19~~th~~ DAY OF December 1995

*Rita D. Hise*  
Notary Public

My Commission Expires: 6-28-99

Attachments

cc: A. A. Blind  
G. Charnoff  
J. B. Martin  
NFEM Section Chief  
NRC Resident Inspector - Bridgman  
J. R. Padgett

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ATTACHMENT 1 TO AEP:NRG:1215B

DESCRIPTION AND JUSTIFICATION OF CHANGES

10 CFR 50.92 ANALYSIS FOR CHANGES  
TO THE DONALD C. COOK NUCLEAR PLANT  
UNITS 1 AND 2 TECHNICAL SPECIFICATIONS



I. DESCRIPTION OF CHANGES

The proposed amendment to Technical Specifications (T/Ss) 3/4.6.1.2, 3/4.6.1.3, 3/4.6.1.6, and 3/4.6.1.7 makes the following specific changes to the Cook Nuclear Plant Units 1 and 2 T/Ss:

- A. Revises the wording in the Unit 1 T/Ss Action Statements for T/Ss 3.6.1.2, 3.6.1.6, and Limiting Condition For Operation for T/S 3.6.1.3.b to make the wording consistent with Unit 2. These are administrative changes that do not change the content of the T/Ss.

- B. Removes Surveillance Requirement 4.6.1.2.a, renumbers 4.6.1.2.b and 4.6.1.2.c, and replaces the general statement of T/S 4.6.1.2 for Unit 1 and Unit 2 with the following:

"Perform leakage rate testing in accordance with 10 CFR 50 Appendix J Option B and Regulatory Guide 1.163, dated September 1995."

- C. Removes the note at the bottom of page 3/4.6-2 for T/S 4.6.1.2 for Unit 1 that would have required a Type A test to be performed at the end of Cycle 15. This test will be performed in accordance with the scheduling requirements of Appendix J Option B.

- D. Removes a note from the bottom of page 3/4.6-2 for T/S 4.6.1.2 of Unit 2 that allowed a one-time exemption to Appendix J to extend the test interval to the end of the Cycle 9-10 refueling outage. The exemption has expired and is no longer needed in the T/Ss.

- E. Revises Surveillance Requirement 4.6.1.3 to remove the specific requirements for Airlock Door Testing and replaces the general statement of T/S 4.6.1.3.a for Unit 1 and Unit 2 with the following:

"In accordance with 10 CFR 50 Appendix J Option B and Regulatory Guide 1.163, dated September 1995, and"

The modified statement proposed above incorporates Surveillance Requirements 4.6.1.3.a, b, and c for Air Lock Leak Rate Testing into the single statement and renumbers requirement 4.6.1.3.d. It also removes the exemption to Appendix J that currently exists. These testing requirements are specified in Appendix J to 10 CFR 50 by reference to Regulatory Guide 1.163 and NEI 94-01, Revision 0, "Industry Guideline For Implementing Performance-Based Option of 10 CFR Part 50, Appendix J." Therefore, it is not necessary to repeat these requirements in the T/Ss given the above

suggested change. Due to the amount of verbiage being deleted, Page 3/4 6-5 of both Units 1 and 2 T/Ss will be left blank.

- F. Revises Surveillance Requirement 4.6.1.6 for containment inspection criteria for Unit 1 and Unit 2 with the following statement:

"The structural integrity of the containment structure and steel liner shall be determined in accordance with 10 CFR 50 Appendix J Option B and Regulatory Guide 1.163, dated September 1995."

- G. Unit 1 and Unit 2 T/Ss 4.6.1.7.1 were revised to add the surveillance requirements of T/Ss 3/4.6.1.2 to it. Type C testing, as disseminated in Appendix J, is required for the containment purge exhaust and isolation valves. This testing has always been completed but was never specifically addressed in the T/Ss.

## II. JUSTIFICATION FOR CHANGES

The changes proposed to the T/Ss are based on the NRC's Marginal-to-Safety Program to make regulatory requirements more efficient by eliminating those with marginal impact on safety. Appendix J was identified in 1986 as a candidate for update based on this program. A concerted effort has taken place over the past three years to revise Appendix J to give utilities the option of a performance-based rule.

The justification for changing to a performance-based leakage-rate testing approach for light water reactor containments is discussed in detail in the Federal Register (60 FR 49495) final rule notification for Primary Reactor Containment Leakage Testing for Water-Cooled Power Reactors, dated September 26, 1995. The rule change is based on analytical efforts documented in NUREG-1493, which confirms previous observations of insensitivity of population risks from severe reactor accidents to containment leakage rates. Basically, the rule allows utilities to adopt a performance-based testing approach to Types A, B, and C tests. The specific testing requirements are instituted in the Code of Federal Regulations by reference to Regulatory Guide 1.163 (September 1995), which in turn references industry guideline NEI 94-01, "Industry Guideline For Implementing Performance-Based Option Of 10 CFR Part 50, Appendix J", and ANSI/ANS-56.8-1994, "Containment System Leakage Testing Requirements." These documents provide the guidance for establishing a performance-based leakage-rate testing program. Listed below are some of the specifics of the rule change that are taken from the Federal Register publication of the final rule:



*Type A Test Interval* (1) Based on the limited value of integrated leakage-rate tests (ILRTs) in detecting significant leakages from penetrations and isolation valves, establish the test interval based on the performance of the containment system structure; (2) The performance criterion of the test will continue to be the allowable leakage rate (La); (3) The industry guideline allows extension of the Type A test interval to once every ten years based on satisfactory performance of two previous tests, inclusive of the pre-operational ILRT; (4) In the regulatory guide, the NRC takes exception to industry guidance for the extension of the interval of the general visual inspection of the containment system, and limits the interval to 3 times every 10 years, in accordance with current practice.

*Type B & C Test Interval* (1) Allow local leakage-rate test (LLRTs) intervals to be established based on the performance history of each component; (2) The performance criterion for the tests will continue to be [0.60 of] the allowable leakage rate (La); (3) Specific performance factors for establishing extended test intervals (up to 10 years for Type B components, and 5 years for Type C components) are contained in the regulatory guide and industry guideline. In the regulatory guide, the NRC has taken exception to the NEI guideline allowing the extension of Type C test intervals up to 10 years, and limits such extensions to 5 years.

All of these requirements are being implemented in the Cook Nuclear Plant T/Ss by reference to Appendix J Option B and Regulatory Guide 1.163. Some particular points to address include our understanding of the requirements for testing of the containment air locks and the containment purge exhaust and isolation valves. The current T/Ss at Cook Nuclear Plant have an exemption to Appendix J to perform a between the seals test on the doors at least once per 3 days. This exemption is no longer necessary because the new rule allows doors that are utilized for multiple containment entries (more than once every 7 days) to have their seals tested once per 30 days. In addition to this, the overall airlock test will now be performed once every 30 months, as opposed to once every six months. With regards to the containment purge and exhaust isolation valves, it is understood that the test interval is limited to 30 months as specified in Section 3.3.4 of ANSI/ANS-56.8-1994. It is also understood that the detailed licensee programs for conducting testing under Option B will be available at the plant site for NRC inspection. This program will include the necessary procedures for performing Types A, B, and C tests, as well as the history of Types A, B, and C tests used to establish the test intervals.

### III. 10 CFR 50.92 CRITERIA

Per 10 CFR 50.92, a proposed change does not involve a significant hazards consideration if the change does not:

1. involve a significant increase in the probability or consequences of an accident previously evaluated,
2. create the possibility of a new or different kind of accident from any accident previously evaluated, or
3. involve a significant reduction in a margin of safety.

#### Criterion 1

This amendment request does not involve a significant increase in the probability or consequences of an accident previously evaluated because the proposed changes to the T/Ss do not affect the assumptions, parameters, or results of any UFSAR accident analysis. The proposed changes do not change the acceptance criteria for containment leakage limits and do not modify the response of the containment during a design basis accident. The proposed amendment does not add or modify any existing equipment. The proposed Types A, B, and C testing schedules will be consistent with Appendix J, Option B to 10 CFR 50 which was developed based on analytical efforts documented in NUREG-1493. The analysis confirms previous observations of insensitivity of population risks from severe reactor accidents to containment leakage rates. Based on these considerations, it is concluded that the changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

#### Criterion 2

The proposed changes do not involve physical changes to the plant or changes in plant operating configuration. The proposed changes only remove the restrictive scheduler requirements for conducting Types A, B, and C testing from the T/Ss and substitute the schedule specified in Appendix J Option B to 10 CFR 50 and Regulatory Guide 1.163. Thus, it is concluded that the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

#### Criterion 3

Based on NUREG-1493, Regulatory Guide 1.163, and the rule posting in the Federal Register (60 FR 49495), the margin for safety presently provided is not significantly reduced by the proposed change to a performance-based test interval for Types A, B, and C tests. Although the changes allow more flexibility in scheduling tests, the



proposed amendment continues to ensure reactor containment system reliability by periodic testing in full compliance with 10 CFR 50, Appendix J Option B. Based on these considerations, it is concluded that the changes do not involve a significant reduction in a margin of safety.