

January 5, 1995

Mr. E. E. Fitzpatrick, Vice President
Indiana Michigan Power Company
c/o American Electric Power Service Corporation
1 Riverside Plaza
Columbus, OH 43215

SUBJECT: DONALD C. COOK NUCLEAR PLANT, UNIT NOS. 1 AND 2 - ISSUANCE OF
AMENDMENT RE: SCHEDULING REQUIREMENTS FOR TYPES A, B, AND C
CONTAINMENT LEAKAGE TESTS (TAC NOS. M90173 AND M90174)

Dear Mr. Fitzpatrick:

The Commission has issued the enclosed Amendment No. 187 to Facility Operating License No. DPR-58 and Amendment No. 173 to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated July 19, 1994.

The amendments remove the specific scheduling requirements for Types A, B, and C containment leakage rate tests from the TS and replace these requirements with a requirement to perform Types A, B, and C testing in accordance with Appendix J to 10 CFR Part 50.

A copy of our related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

ORIGINAL SIGNED BY

John B. Hickman, Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

- Enclosures: 1. Amendment No. 187 to DPR-58
- 2. Amendment No. 173 to DPR-74
- 3. Safety Evaluation

cc w/encl: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

January 5, 1995

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Indiana Michigan Power Company
c/o American Electric Power Service Corporation
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Sincerely,

A handwritten signature in black ink, appearing to read "John B. Hickman".

John B. Hickman, Project Manager
Project Directorate III-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Docket Nos. 50-315 and 50-316

Enclosures: 1. Amendment No. 187 to DPR-58
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cc w/encl: See next page

Mr. E. E. Fitzpatrick
Indiana Michigan Power Company

Donald C. Cook Nuclear Plant

cc:

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Division of Radiological Health
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Lansing, Michigan 48909

December 1993

DATED: January 5, 1995

AMENDMENT NO. 187 TO FACILITY OPERATING LICENSE NO. DPR-58-D. C. COOK - UNIT 1
AMENDMENT NO. 173 TO FACILITY OPERATING LICENSE NO. DPR-74-D. C. COOK - UNIT 2

Docket File

PUBLIC

PDIII-1 Reading

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cc: Plant Service list



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-315

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 187
License No. DPR-58

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana Michigan Power Company (the licensee) dated July 19, 1994, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

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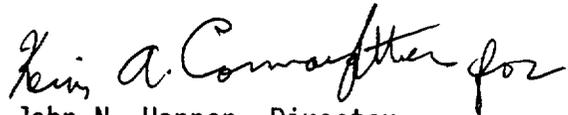
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-58 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 187, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John N. Hannon, Director
Project Directorate III-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: January 5, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 187
TO FACILITY OPERATING LICENSE NO. DPR-58
DOCKET NO. 50-315

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

REMOVE

3/4 6-2
3/4 6-3

INSERT

3/4 6-2
3/4 6-3

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

- 3.6.1.2 Containment leakage rates shall be limited to:
- a. An overall integrated leakage rate of $\leq L_a$, 0.25 percent by weight of the containment air per 24 hours at P_a , 12.0 psig, and
 - b. A combined leakage rate of $\leq 0.60 L_a$ for all penetrations and valves subject to Type B and C tests when pressurized to P_a .

APPLICABILITY: Modes 1, 2, 3 and 4.

ACTION:

With either (a) the measured overall integrated containment leakage rate exceeding $0.75 L_a$ or (b) with the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding $0.60 L_a$, restore the leakage rate(s) to within the limit(s) prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

- 4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4-1972:
- a. Types A, B, and C (Overall Integrated and Local Combined Leakage Rate) testing shall be conducted in accordance with the requirements specified in Appendix J to 10 CFR 50, as modified by approved exemptions.
 - b. Each containment air lock shall be verified to be in compliance with the requirements of Specification 3.6.1.3.
 - c. The provisions of Specification 4.0.2 are not applicable.

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

INDIANA MICHIGAN POWER COMPANY

DOCKET NO. 50-316

DONALD C. COOK NUCLEAR PLANT, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 173
License No. DPR-74

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Indiana Michigan Power Company (the licensee) dated July 19, 1994, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-74 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 173, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



John N. Hannon, Director
Project Directorate III-1
Division of Reactor Projects - III/IV
Office of Nuclear Reactor Regulation

Attachment: Changes to the Technical
Specifications

Date of Issuance: January 5, 1995

ATTACHMENT TO LICENSE AMENDMENT NO. 173

FACILITY OPERATING LICENSE NO. DPR-74

DOCKET NO. 50-316

Revise Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by amendment number and contain vertical lines indicating the area of change.

REMOVE

3/4 6-2
3/4 6-3
3/4 6-4*

INSERT

3/4 6-2
3/4 6-3
3/4 6-4*

*Overleaf page provided to maintain document completeness. No changes contained on these pages.

CONTAINMENT SYSTEMS

CONTAINMENT LEAKAGE

LIMITING CONDITION FOR OPERATION

- 3.6.1.2 Containment leakage rates shall be limited to:
- a. An overall integrated leakage rate of $\leq L_a$, 0.25 percent by weight of the containment air per 24 hours at P_a , 12.0 psig, and
 - b. A combined leakage rate of $\leq 0.60 L_a$ for all penetrations and valves subject to Type B and C tests when pressurized to P_a .

APPLICABILITY: Modes 1, 2, 3 and 4.

ACTION:

With either (a) the measured overall integrated containment leakage rate exceeding $0.75 L_a$, or (b) with the measured combined leakage rate for all penetrations and valves subject to Types B and C tests exceeding $0.60 L_a$, restore the overall integrated leakage rate to $\leq 0.75 L_a$ and the combined leakage rate for all penetrations and valves subject to Type B and C tests to $\leq 0.60 L_a$ prior to increasing the Reactor Coolant System temperature above 200°F.

SURVEILLANCE REQUIREMENTS

- 4.6.1.2 The containment leakage rates shall be demonstrated at the following test schedule and shall be determined in conformance with the criteria specified in Appendix J of 10 CFR 50 using the methods and provisions of ANSI N45.4-1972:
- a. Types A, B, and C (Overall Integrated and Local Combined Leakage Rate) testing shall be conducted in accordance with the requirements specified in Appendix J to 10 CFR 50, as modified by approved exemptions.†
 - b. Each containment air lock shall be verified to be in compliance with the requirements of Specification 3.6.1.3.
 - c. The provisions of Specification 4.0.2 are not applicable.

† One-time exemption to 10 CFR 50, Appendix J, Sections III.D.2(a) and III.D.3, which allows the provisions of Technical Specification 4.0.8 to be applicable.

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CONTAINMENT SYSTEMS

CONTAINMENT AIR LOCKS

LIMITING CONDITION FOR OPERATION

3.6.1.3 Each containment air lock shall be OPERABLE with:

- a. Both doors closed except when the air lock is being used for normal transit entry and exit through the containment, then at least one air lock door shall be closed, and
- b. An overall air lock leakage rate of $\leq 0.05 L_a$ at P_a , 12.0 psig.

APPLICABILITY: MODES 1, 2, 3 and 4.

ACTION:

With an air lock inoperable, maintain at least one door closed; restore the air lock to OPERABLE status within 24 hours or be in at least HCT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

SURVEILLANCE REQUIREMENTS

4.6.1.3 Each containment air lock shall be demonstrated OPERABLE:

- a. *After each opening, except when the air lock is being used for multiple entries, then at least once per 72 hours, by performing an air leakage test without a simulated pressure force on the door by pressurizing the volume between the door seals to 12 psig and verifying a seal leakage rate of no greater than $0.5 L_a$.
- b. At least once per 6 months by performing an air leakage test without a simulated pressure force on the door per Specification 4.6.1.3.a; then by performing an air leakage test with a simulated pressure force on the door by pressurizing the volume between the door seals to 12 psig and verifying a seal leakage rate of no greater than $0.0005 L_a$.

*Exemption to Appendix "J" of 10 CFR 50.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 187 TO FACILITY OPERATING LICENSE NO. DPR-58
AND AMENDMENT NO. 173 TO FACILITY OPERATING LICENSE NO. DPR-74
INDIANA MICHIGAN POWER COMPANY
DONALD C. COOK NUCLEAR PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-315 AND 50-316

1.0 INTRODUCTION

By letter dated July 19, 1994, the Indiana Michigan Power Company (the licensee) requested amendments to the Technical Specifications (TS) appended to Facility Operating License Nos. DPR-58 and DPR-74 for the Donald C. Cook Nuclear Plant, Unit Nos. 1 and 2. The proposed amendments would remove the specific scheduling requirements for Types A, B, and C containment leakage rate tests from the TS and replace these requirements with a requirement to perform Types A, B, and C testing in accordance with Appendix J to 10 CFR Part 50. Additional editorial and administrative changes were also proposed.

2.0 EVALUATION

Cook TS 4.6.1.2.a. currently requires that a set of three Type A tests be performed specifically at 40 ± 10 -month intervals during each 10-year service period, with the third test of each set performed during the shutdown for the 10-year plant inservice inspection. Section III.D. of Appendix J to 10 CFR Part 50 requires that Type A tests of the containment be scheduled as a set of three tests, to be performed at approximately equal intervals, during each 10-year service period, with the third set to coincide with the shutdown for the 10-year plant inservice inspection. While the Cook TS essentially duplicate the requirements of Appendix J to 10 CFR Part 50, the TS contain the additional requirement that Type A testing be performed at 40 ± 10 month intervals. For units, such as Cook, on 18-month fuel cycles the 40 ± 10 month requirement essentially requires performance of a test every two fuel cycles as three cycles would be 54 months which exceeds the allowance. Since a test is required every two cycles over a 10-year period, this necessitates either the performance of a fourth test or the request for a period extension between two of the tests. Due to this scheduling difficulty the licensee has proposed to revise the TS requirement for Type A tests to simply reference the requirements of Appendix J to 10 CFR Part 50, as modified by approved exemptions. Satisfactory leakage results are a requirement for the establishment of containment operability. Neither the general frequency nor the required number of Type A tests would be changed by the proposed changes. Also, the maximum allowable leakage rate at the calculated peak containment

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pressure would not be changed. Only the detailed 40 ± 10 -month test interval would be changed to provide more flexibility. Type A test acceptance criteria would not be changed. The proposed changes do not impact the design basis of the containment and would not change the response of containment during a design basis accident. Finally, the testing method, acceptance criteria, and the Bases to the TS are not changed by the proposed revisions to the TS. Therefore, based on all of the above, the staff finds the revision to TS 4.6.1.2.a. to be acceptable.

TS 4.6.1.2.b., 4.6.1.2.c.1., 4.6.1.2.c.2. contain additional testing requirements regarding the schedule for retesting if a test fails to meet the $0.75 L_a$ requirement and supplemental testing to verify accuracy of Type A tests. These testing requirements in the TS and in Appendix J to 10 CFR Part 50 are virtually identical except for minor grammatical differences. The licensee has proposed to delete these TS for simplicity. Since the regulatory and TS requirements are essentially identical, the proposed deletion is administrative and acceptable.

TS 4.6.1.2.c.3. and TS 4.6.1.2.f. provide specific testing direction regarding the quantity of gas to be displaced during a supplemental Type A test, and calculational methodologies for leakage rates and error analyses. The licensee stated that these Type A test requirements are also specified in Appendix J to 10 CFR Part 50 and need not be reiterated in the TS. However, Surveillance Requirements 4.6.1.2.c.3. and 4.6.1.2.f. are not specified in Appendix J to the same level of detail. While 4.6.1.2.c.3. mandates a specific quantity of gas to be displaced from containment during a supplemental test, Appendix J refers to Appendix C of ANSI N45.4-1972 for guidance on an acceptable supplemental test. TS 4.6.1.2.f. requires an error analysis for leakage rate calculations while Appendix J only requires correcting for instrument error. Although the requirements are not specified in the same level of detail in Appendix J as in the TS surveillance requirements, the requirement for a supplemental test and general requirements for the accuracy of the test are specified in Appendix J. In addition, it is not necessary for the TS to contain the level of detail specified in sections 4.6.1.2.c.3. and 4.6.1.2.f. For example, the improved Standard Technical Specifications for Westinghouse Plants, NUREG-1431, are consistent with the licensee's proposal in this respect. Based on the above, the staff finds the deletion of TS 4.6.1.2.c.3. and TS 4.6.1.2.f. to be acceptable.

The licensee has also proposed that TS 4.6.1.2.e., which specifies requirements for pressure and intervals for Type B and C tests, be replaced with a requirement that Type B and C testing be conducted in accordance with Appendix J to 10 CFR Part 50, as modified by approved exemptions. Since the requirements for Type B and C testing are specified in greater detail in Appendix J, the deletion from the TS has no impact on the requirement imposed on the licensee and is, therefore, acceptable.

Finally, the licensee has proposed as an addition to the Unit 1 TS, the statement that the provisions of Specification 4.0.2 are not applicable. Unit 2's TS already contain this statement. TS 4.0.2 specifies that surveillances shall be performed within the required time interval with a maximum extension of 25%. However, the requirements of Appendix J to 10 CFR

Part 50 would be violated if this extension were used. Therefore, since the addition of Specification 4.0.2 inapplicability is conservative by maintaining a more stringent schedule requirement, the staff finds the change acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Michigan State official was notified of the proposed issuance of the amendments. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change the requirements with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change surveillance requirements. The staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration and there has been no public comment on such finding (59 FR 49430). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

5.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: John B. Hickman, NRR

Date: January 5, 1995