



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

June 1, 1994

Docket No. 50-316

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

Dear Mr. Fitzpatrick:

SUBJECT: DONALD C. COOK NUCLEAR PLANT, UNIT NO. 2 - ISSUANCE OF AMENDMENT
RE: APPENDIX J TYPE B AND C TESTING (TAC NO. M89025)

The Commission has issued the enclosed Amendment No. 162 to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Unit No. 2. The amendment consists of changes to the Technical Specifications (TS) in response to your application dated March 9, 1994, as supplemented April 13, 1994.

The amendment revises the TS to allow a one-time extension of the interval for Type B and C testing. By letter dated May 24, 1994, the Commission issued a schedular exemption from the requirement in 10 CFR Part 50, Appendix J, III.2.(a) and III.D.3 to extend the allowed interval between the performance of Type B and C containment leak tests by 150 days.

On May 26, 1994, the NRC staff exercised enforcement discretion not to enforce compliance with TS 4.6.1.2.d. TS 4.6.1.2.d requires that Type B and C leak rate tests be performed at an interval no greater than 24 months. Based on the last performance of the required testing, you would have been required to perform the tests again by May 29, 1994. Due to an unanticipated delay in the publication of the Federal Register notice for this amendment, it could not be issued prior to May 31, 1994. On May 25, 1994, you requested that the staff exercise enforcement discretion for the period from May 30, 1994 until June 1, 1994, to allow plant operation until this amendment could be issued.

In your May 25, 1994, request, you provided a justification that summarized the previous submittals supporting the 150-day extension in the exemption and amendment request and concluded that the 3-day exercise of enforcement discretion would have no safety significance. On the basis of our review of your justification, the staff concluded that the proposed course of action involves minimum or no safety impact, and we were clearly satisfied that this exercise of enforcement discretion was warranted from a public health and safety perspective. Therefore, the staff chose to exercise enforcement discretion not to enforce compliance with TS 4.6.1.2.d for the period from May 30, 1994, through June 1, 1994.

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Mr. E. E. Fitzpatrick

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June 1, 1994

A copy of our related Safety Evaluation is 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

Enclosures:

- 1. Amendment No.162 to DPR-74
- 2. Safety Evaluation

cc w/enclosures:

See next page

*See previous concurrence

OFFICE	LA:PD31	PM:PD31	BC:SCSB	OGC	PD:PD31
NAME	CJamerson	JHickman:cir	RBarrett*	EHolder	LBMarsh
DATE	05/26/94	05/26/94	05/16/94	05/21/94	5/1/94

OFFICIAL RECORD COPY

FILENAME:G:\WPDOCS\DCCOOK\C089025.AMD

Mr. E. E. Fitzpatrick
Indiana Michigan Power Company

Donald C. Cook Nuclear Plant

cc:

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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. 162
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 March 9, 1994, as supplemented April 13, 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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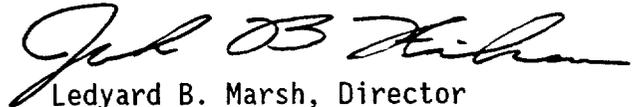
2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-74 is hereby amended to read as follows:

Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 162, 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



Ledyard B. Marsh, 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: June 1, 1994

ATTACHMENT TO LICENSE AMENDMENT NO.162

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

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3/4 6-4*

INSERT

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

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

CONTAINMENT SYSTEMS

SURVEILLANCE REQUIREMENTS (Continued)

- b. If any periodic Type A test fails to meet $.75 L_a$, the test schedule for subsequent Type A tests shall be reviewed and approved by the Commission. If two consecutive Type A tests fail to meet $.75 L_a$, a Type A test shall be performed at least every 18 months until two consecutive Type A tests meet $.75 L_a$, at which time the above test schedule may be resumed.
- c. The accuracy of each Type A test shall be verified by a supplemental test which:
 - 1. Confirms the accuracy of the Type A test by verifying that the difference between supplemental and Type A test data is within $0.25 L_a$,
 - 2. Has a duration sufficient to establish accurately the change in leakage between the Type A test and the supplemental test.
 - 3. Requires the quantity of gas injected into the containment or bled from the containment during the supplemental test to be equivalent to at least 25 percent of the total measured leakage rate at P_a , 12.0 psig.
- d. Type B and C tests shall be conducted at P_a , 12.0 psig, at intervals no greater than 24 months except for tests involving air locks.†
- e. Each containment air lock shall be verified to be in compliance with the requirements of Specification 3.6.1.3.
- f. All test leakage rates shall be calculated using observed data converted to absolute values. Error analyses shall be performed to select a balanced integrated leakage measurement system.
- g. 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.

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 HOT 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 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
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WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO.162 TO FACILITY OPERATING LICENSE NO. DPR-74
INDIANA MICHIGAN POWER COMPANY
DONALD C. COOK NUCLEAR PLANT, UNIT NO. 2
DOCKET NO. 50-316

1.0 INTRODUCTION

By letter dated March 9, 1994, as supplemented April 13, 1994, the Indiana Michigan Power Company (the licensee) requested an amendment to the Technical Specifications (TS) appended to Facility Operating License No. DPR-74 for the Donald C. Cook Nuclear Plant, Unit No. 2. The proposed amendment would revise the TS to allow a one-time extension of certain Appendix J Type B and C testing. The licensee also requested an exemption from the related requirements of Appendix J to 10 CFR Part 50. Specifically, this exemption would extend the surveillance intervals for Type B and C testing, which is required to be performed prior to May 29, 1994, for 150 days until the Unit 2 refueling outage currently scheduled to begin September 1994.

Appendix J to 10 CFR Part 50, Paragraph III.D.2.(a), states, in part, "Type B tests, except tests for air locks, shall be performed during reactor shutdown for refueling, or other convenient intervals, but in no case at intervals greater than 2 years." Paragraph III.D.3., states, "Type C tests shall be performed during each reactor shutdown for refueling but in no case at intervals greater than 2 years." Taken together, these sections require Type B and C containment leakage tests to be performed at an interval not to exceed 2 years.

The 2-year maximum will be exceeded during Cook Unit 2 cycle 9 due to an equipment problem and scheduling to maximize plant efficiency. The equipment problem, which occurred after completing cycle 8, involved the turbine-generator and took 6 months to resolve. As a result, both units would have been ready for refueling outages in early 1994. In order to separate the outages, the licensee decided to extend the operating cycle for Unit 2 by operating at reduced capacity. Therefore, due to the equipment problem and subsequent cycle extension decision, the next refueling outage opportunity on Unit 2 for conducting Type B and C testing will exceed the 2-year interval since testing was last performed. As a result, the licensee has requested the subject amendment and exemption.

2.0 EVALUATION

The staff notes that the 2-year interval requirement for Type B and C component testing is intended to be often enough to prevent significant deterioration from occurring and long enough to permit the tests to be performed during plant

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outages. Leak rate testing of the penetrations during plant shutdown is preferable because of the lower radiation exposures to the plant personnel. In this instance, if the licensee chose to shut down the plant to perform the testing, the net exposure would be increased. This would occur since the testing would be performed again during the scheduled outage 100 days later.

Another reason leak rate testing is performed at shutdown is because many of the Type B and C components cannot be tested at power. The licensee states that a cooldown is necessary, and required by procedure, to avoid challenging containment integrity requirements and the associated 1 hour limiting condition for operation. If the tests are performed mid-cycle, then the presence of fuel in the vessel would impose additional safety concerns. For penetrations that cannot be tested during power operation, or for which testing at power is inadvisable, the increase in confidence in containment integrity following a successful test is not significant enough to justify a plant shutdown specifically to perform the tests so close to the end of the 2-year time period.

A review by the licensee of recent Type B and C surveillance results for Cook Unit 2 indicates generally improved performance and a low likelihood for serious degradation during the current cycle. The following provides the results of the licensee's Type B and C testing performed during 1989, 1990, and 1992:

	1989		1990		1992	
	As Found	As Left	As Found	As Left	As Found	As Left
Leak Rate	3.00 L _a	0.076 L _a	0.74 L _a	0.17 L _a	0.18 L _a	0.17 L _a

The results indicate a significant improvement and a good probability that the 1994 results will be below the Appendix J leak rate acceptance criteria of 0.6 L_a. In addition, the licensee has taken corrective actions for several Type C valves that were found with excessive leakage in 1992. The staff notes that with the outage expected to begin at the beginning of September 1994, approximately the last third of the extension will be during the period that the unit is shut down. Since primary containment integrity is not required during cold shutdown, this period will have minimal safety significance.

Based on the above evaluation, the staff finds that the requested TS change and temporary exemption, to allow the Type B and C test intervals to be extended 150 days from their current expiration date, to be acceptable.

3.0 STATE CONSULTATION

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

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a surveillance requirement. The staff has determined that the amendment involves 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 amendment involves no significant hazards consideration and there has been no public comment on such finding (59 FR 22009). Accordingly, the amendment meets 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 amendment.

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 amendment 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: June 1, 1994

DATED: June 1, 1994

AMENDMENT NO. 162 TO FACILITY OPERATING LICENSE NO. DRP-74-D.C. COOK

Docket File
NRC & Local PDRs
PDIII-1 Reading
J. Roe
J. Zwolinski
L. Marsh
R. Barrett, 8/H/7
J. Hickman
C. Jamerson
OGC-WF
D. Hagan, MNBB/3302
G. Hill (2)
C. Grimes, 11/F/23
ACRS (10)
OPA
OC/LFDCB
B. McCabe, EDO/RIII
W. Kropp, RIII
SEDB

cc: Plant Service list