

May 24, 1994

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 EXEMPTION  
RE: APPENDIX J TYPE B AND C TESTING (TAC NO. M89025)

The U.S. Nuclear Regulatory Commission has granted the enclosed exemption from certain requirements of Appendix J to 10 CFR Part 50 for the Donald C. Cook Nuclear Plant, Unit 2. The exemption permits a one-time 150-day extension of the test period for Type B and C containment leak rate tests. The exemption is granted in response to your application dated March 9, 1994, as supplemented April 13, 1994.

We find that granting the exemption is authorized by law, will not present an undue risk to the public health and safety, is consistent with the common defense and security, and meets the special circumstances described in 10 CFR 50.12(a)(2)(ii).

Pursuant to 10 CFR 51.32, the Commission has determined that granting this exemption will have no significant impact on the environment (59 FR 22870).

A copy of the exemption is being forwarded to the Office of the Federal Register for publication.

Sincerely,

Original signed by

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

Enclosure:  
Exemption

cc w/enclosure:  
See next page

\*See previous concurrence

OFFICE	LA:PD31	PM:PD31	BC:SCSB	OGC
NAME	CJamerson	JHickman:cir	RBarrett*	EHollen
DATE	05/19/94	05/19/94	05/16/94	05/19/94
OFFICE	PD:PD31	AD:RIII	D:DRPW	
NAME	LBMarsh	JZwolinski	JRoe	
DATE	05/24/94	05/24/94	05/24/94	

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Mr. E. E. Fitzpatrick  
Indiana Michigan Power Company

Donald C. Cook Nuclear Plant

cc:

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Division of Radiological Health  
Department of Public Health  
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P. O. Box 30195  
Lansing, Michigan 48909

DATED: May 24, 1994

EXEMPTION TO FACILITY OPERATING LICENSE NO. DRP-74 - D.C. COOK, UNIT 2

Docket File  
NRC & Local PDRs  
PDIII-1 Reading  
W. Russell/F. Miraglia, 12/G/18  
L. Reyes, 12/D/9  
J. Lieberman, 7/H/5  
J. Roe  
E. Jordan, MNBB/3701  
J. Zwolinski  
L. Marsh  
B. McCabe, 17/G/21  
R. Barrett, 8/H/7  
J. Hickman  
C. Jamerson  
OGC-WF  
G. Hill (2)  
ACRS (10)  
OPA  
OC/LFDCB  
W. Kropp, R-III

cc: Plant Service list

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
INDIANA MICHIGAN POWER COMPANY )  
(D.C. Cook 2) )

Docket No. 50-316

EXEMPTION

I.

Indiana Michigan Power Company (the licensee) is the holder of Facility Operating License No. DPR-74 which authorizes operation of the Donald C. Cook Unit 2 Nuclear Plant at steady-state reactor power levels not in excess of 3411 megawatts thermal. The Cook 2 facility is a pressurized water reactor located at the licensee's site in Berrien County, Michigan. The license provides, among other things, that it is subject to all rules, regulations, and Orders of the Nuclear Regulatory Commission (the Commission) now or hereafter in effect.

II.

Section 50.54(o) of 10 CFR Part 50 requires that primary reactor containments for water cooled power reactors be subject to the requirements of Appendix J to 10 CFR Part 50. Appendix J contains the leakage test requirements, schedules, and acceptance criteria for tests of the leak tight integrity of the primary reactor containment and systems and components which penetrate the containment.

Paragraph III.D.2.(a) of Appendix J to 10 CFR Part 50 requires, in part, that 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. Type B tests are intended to detect local leaks and to measure leakage across each pressure-containing or leakage-limiting boundary for certain reactor containment penetrations.

Paragraph III.D.3. of Appendix J to 10 CFR Part 50 requires that Type C tests shall be performed during each reactor shutdown for refueling but in no case at intervals greater than 2 years. Type C tests are intended to measure containment isolation valve leakage rates for certain containment isolation valves.

Pursuant to 10 CFR 50.12(a), the NRC may grant exemptions from the requirements of the regulations (1) which are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security; and (2) where special circumstances are present.

### III.

By letter dated March 9, 1994, and supplemented April 13, 1994, the licensee requested a one-time exemption from the requirements of 10 CFR Part 50, Appendix J, III.D.2.(a) and III.D.3 for a period of 150 days for the testing of Type B and C penetrations.

The underlying purpose of the requirement to perform Type B and C containment leak rate tests at intervals not to exceed 2 years is to ensure that any potential leakage pathways through the containment boundary are identified within a time span that prevents significant degradation from continuing or being unknown, and long enough to allow the tests to be conducted during scheduled refueling outages. This interval was originally published in Appendix J when refueling cycles were conducted at approximately

annual intervals and has not been changed to reflect 18-month or 2-year operating cycles. It is not the intent of the regulation to require a plant shutdown solely for the purpose of conducting the periodic leak rate tests. Based on historical data at Cook, any incremental increase in leakage because of the extension would be expected to be small. Corrective actions taken for several Type C valves that were found with excessive leakage in 1992 provide increased assurance that these components will perform their safety function. In addition, recent as-found leak rates, which were only a small fraction above the previous as-left leak rates, have been 30 percent of the established reference leak rates. Therefore, since the extension is relatively short compared to the 2-year test interval requirement, it is unlikely that substantial degradation of the containment components leading to the failure of the containment to perform its safety function would occur. As a result, the application of the regulation in the particular circumstances is not necessary to achieve the underlying purpose of the rule.

#### IV.

Based on the above, the NRC staff has concluded that the licensee's proposed increase of the 2-year time interval for performing Type B and C containment leak rate tests will not present an undue risk to the public health and safety and is consistent with the common defense and security. The NRC staff has determined that there are special circumstances present, as specified in 10 CFR 50.12(a)(2), such that application of 10 CFR Part 50, Appendix J, Sections III.D.2.(a) and III.D.3 are not necessary in order to achieve the underlying purpose of this regulation.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12, this exemption as described in Section III above is authorized by law,

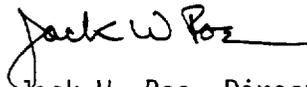
will not present an undue risk to the public health and safety, and is consistent with the common defense and security. The Commission further determines that special circumstances as provided in 10 CFR 50.12(a)(2)(ii) are present in that application of the regulation in the particular circumstances is not necessary to achieve the underlying purpose of the rule.

Therefore, the Commission hereby grants a one-time exemption as described in Section III above from the requirement in 10 CFR Part 50, Appendix J, III.D.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.

Pursuant to 10 CFR 51.32, the Commission has determined that the granting of this exemption will have no significant impact on the environment (59 FR 22870).

This exemption is effective upon issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Jack W. Roe, Director  
Division of Reactor Projects - III/IV  
Office of Nuclear Reactor Regulation

Dated at Rockville, Maryland  
this 24th day of May 1994