ACCELERATED DOCUMENT DISTRIBUTION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9212290251 DOC.DATE: 92/12/21 NOTARIZED: NO DOCKET #
FACIL:50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana M 05000315
50-316 Donald C. Cook Nuclear Power Plant, Unit 2, Indiana M 05000316
AUTH.NAME AUTHOR AFFILIATION
FITZPATRICK,E. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
RECIP.NAME RECIPIENT AFFILIATION
MURLEY,T.E. Document Control Branch (Document Control Desk)

SUBJECT: Requests exemption from 10CFR50,App J to conduct full pressure airlock leakage test whenever airlocks opened during periods when containment integrity not required.Full pressure test will be conducted at least once per 6 months.

DISTRIBUTION CODE: A017D COPIES RECEIVED:LTR 1 ENCL 0 SIZE: 4
TITLE: OR Submittal: Append J Containment Leak Rate Testing

NOTES:

	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL	RECIPIENT ID CODE/NAME	COPIES LTTR	COPIES ENCL
	PD3-1 LA	1	0	PD3-1 PD	1	1
	DEAN,W	2	2			
INTERNAL:	NRR/DST/SPLB 8D	1	1	OC/LFMB	1	0
	OGC/HDS2	1	1	REG FILE 01	1	1
	RES/DE/SEB	1	1	RES/DSTR/SAIB	1	1
EXTERNAL:	NRC PDR	1	1	NSIC	1	1

R I D S / A D D S

R I D S / A D D S

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 504-2065) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 12 ENCL ~~10~~ 0

AA-2 dbp

American Electric Power
Service Corporation
1 Riverside Plaza
Columbus, OH 43215
614 223 1000

AMERICAN ELECTRIC POWER

AEP:NRC:1141

Donald C. Cook Nuclear Plant Units 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
REQUEST FOR 10CFR50, APPENDIX J EXEMPTION

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

Attn: T. E. Murley

December 21, 1992

Dear Dr. Murley:

1. Letter, D. C. Fischer (NRC) to C. A. McNeill, Jr. (Public Service Electric and Gas Company), "Exemption from Requirement of 10CFR50, Appendix J, III.D.2(b)(ii)," dated September 4, 1987.

2. Letter, D. C. Fischer (NRC) to C. A. McNeill, Jr. (Public Service Electric and Gas Company), "Exemption from Requirement of 10CFR50, Appendix J, III.D.2(b)(ii)," dated June 19, 1986.

EXEMPTION REQUEST

In accordance with the provisions of 10CFR50.12(a), we hereby request exemption from the requirements of 10CFR50, Appendix J, III.D.2(b)(ii). This exemption, which has been granted to other utilities (References 1 and 2), will relieve us from the requirement to conduct a full pressure airlock leakage test whenever airlocks are opened during periods when containment integrity is not required. We will, instead, rely on the seal leakage testing described in paragraph III.D.2(b)(iii) when the reactor is in cold shutdown (Mode 5) or refueling (Mode 6), when no maintenance has been performed that affects airlock sealing capabilities, and when maintenance has been performed on the airlock gaskets. We will continue to perform a full pressure test of airlock leakage at least once per six months and following any maintenance, other than maintenance on the door gaskets, that could affect airlock sealing capability. This testing will verify that:

290023

A017 1/0

- The sealing capability of the airlock has not degraded as a result of routine use or maintenance since the last time the test was conducted and,

- The overall airlock leakage rate is within its Technical Specifications limits.

Therefore, from the standpoint of public health and safety, there is no undue risk involved with plant operation with this requested exemption in place. There is nothing contained in the exemption request that is inconsistent with the common defense and security.

SPECIAL JUSTIFYING CIRCUMSTANCES

The special circumstances that justify the Commission's consideration of this exemption request conform to the following paragraphs in 10CFR50.12(a):

50.12(a)(2)(ii)

Application of the regulation in this circumstance is not necessary to achieve the underlying purpose of 10CFR50, Appendix J, paragraph III.D.2.(b)(ii). The six-month test requirement of Appendix J paragraph III.D.2(b)(i) and the testing required when maintenance that affects sealing capability is performed on the airlock will provide assurance that the airlock will not leak excessively given a challenge to containment integrity.

50.12(a)(2)(iii)

Compliance would result in undue hardship and cost because of reduced operational flexibility and unwarranted delays in power ascension over the life of Cook Nuclear Plant. This would be in excess of those incurred by other, similar facilities that have received exemptions from the subject Appendix J paragraph. Performance of the leakage rate tests required by paragraph III.D.2(b)(ii) takes approximately eight hours per airlock and requires installation of strongback devices on both the inner and outer doors. Due to common problems that occur following maintenance on refueling shutdowns, it is often the case that this testing must be performed several times during the startup phase. This has in the past delayed entry into Mode 4.

TECHNICAL CONSIDERATIONS

The following considerations have been taken into account in our evaluation of the safety and environmental impact attendant to this exemption request:

- To ensure that airlock leakage is within specified limits, an airlock leakage test at design pressure will be performed prior to establishing primary containment integrity when maintenance has been performed on the airlock that could affect its sealing capability. In addition, whenever air locks are opened during periods when containment integrity is required, an airlock seal test will be performed within 72 hours following each closure, except when the airlock is being used for multiple entries. In the latter case, the seal leak test will be performed at least once per 72 hours during the periods of frequent openings.

- When performing the seal leakage test, we will set an administrative leakage limit that is consistent with recent seal leakage test data. The current data show that this limit can be set at .01 La, a value that is consistent with the Westinghouse Standard Technical Specifications and within our current technical specification value of 0.5 La.

- Opening the airlock has the potential for altering the sealing capability of the airlock because of possible damage to the seals. This may occur to either the door operator shaft seal or to the door peripheral seals. The door operator (hand wheel) shaft seals, however, experience very little alteration as the shafts rotate within packing. History indicates that the shaft seals are very effective in maintaining the sealing capability, even with door operation, and a complete test every six months or after maintenance is sufficient to verify or confirm operability. In contrast to the shaft seals, the door peripheral seals could experience degradation when the doors are cycled. The alterations occur as the edges impact the seals. Pressurization of the volume between the door seals after each opening (as required by Appendix J, III.D.2(b)(iii)), after maintenance that could affect airlock door gaskets, and prior to establishing containment integrity, provides the necessary surveillance to ensure the sealing capability of the door seals.

CONCLUSION

Granting the requested exemption would allow the substitution of an airlock seal test for an airlock pressure test while the reactor is in a cold shutdown or refueling mode. With respect to this exemption from Appendix J, the increment of increased risk to public health and safety is related solely to the potential increased probability for, and magnitude of, containment leakage during an accident that could lead to potentially greater offsite radiological consequences. The potential increase in risk due to this exemption is considered insignificant and would result only

from the potential leakage path through the door operator shaft seals, which will not be measured by this modified test. However, the six-month test requirement of Appendix J paragraph III.D.2(b)(i), and the testing required when maintenance is performed on the airlock, will measure the leakage through the door operator shaft seals and provide assurance that the airlock will not leak excessively and will not affect containment integrity or increase the risk of any facility accidents. Therefore, post-accident radiological releases will not exceed previously determined values. The exemption has no impact on plant radiological or non-radiological effluents and has the potential to reduce occupational exposure by reducing the amount of time that personnel spend in a radiologically restricted area.

Sincerely,

E. E. Fitzpatrick
Vice President

dag

cc: D. H. Williams, Jr.
A. A. Blind - Bridgman
J. R. Padgett
G. Charnoff
NFEM Section Chief
A. B. Davis - Region III
NRC Resident Inspector - Bridgman