ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR:9205050334 DOC.DATE: 92/05/01 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: Application for amends to Licenses DPR-58 & DPR-74,changing number of containment thermistors in TS Tables 3.3-10 & 3.3-11 of TSs 3.3.3.7 & 3.3.3.8 of "Fire Detection Instrumentation."

DISTRIBUTION CODE: A006D COPIES RECEIVED:LTR 1 ENCL 1 SIZE: 7+6
TITLE: OR/Licensing Submittal: Fire Protection

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
	STANG,J	2	2			
INTERNAL:	NRR WERMEIL,J	1	0	NRR/DST 8E2	1	1
	NRR/DST/SPLB8D1	1	1	NUDOCS-ABSTRACT	1	1
	OC/LFMB	1	0	OGC/HDS2	1	0
	REG FILE 01	1	1			
EXTERNAL:	NRC PDR	1	1	NSIC	1	1

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK, ROOM P1-37 (EXT. 20079) TO ELIMINATE YOUR NAME FROM DISTRIBUTION LISTS FOR DOCUMENTS YOU DON'T NEED!

TOTAL NUMBER OF COPIES REQUIRED: LTTR 13 ENCL 9

RIDS/ADDS

RIDS/ADDS

AP-2 Jup

Indiana Michigan
Power Company
P.O. Box 16631
Columbus, OH 43216

INDIANA MICHIGAN POWER

AEP:NRC:0692CF

Donald C. Cook Nuclear Plant Units 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
FIRE DETECTION INSTRUMENTATION TECHNICAL SPECIFICATION CHANGES

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

Attention: T. E. Murley

May 1, 1992

Dear Dr. Murley:

This letter and its attachments constitute an application for amendment of the license conditions and Technical Specifications (T/Ss) for the Donald C. Cook Nuclear Plant Units 1 and 2. Specifically, this letter proposes a change to the number of containment thermistors listed in Tables 3.3-10 and 3.3-11 of T/S 3.3.3.7 and 3.3.3.8, "Fire Detection Instrumentation," Units 1 and 2, respectively.

Attachment 1 provides a detailed description of the proposed changes, the justification for the changes, and our proposed 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 that 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.

These proposed changes have been reviewed by the Plant Nuclear Safety Review Committee and will be reviewed by the Nuclear Safety and Design Review Committee at its next regularly scheduled meeting.

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 the Michigan Department of Public Health.

A006

This document has been prepared following Corporate procedures which incorporate a reasonable set of controls to ensure its accuracy and completeness prior to signature by the undersigned.

Sincerely,

E. E. Fitzpatrick
Vice President

aln

Attachments

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

ATTACHMENT 1 TO AEP:NRC:0692CF

10 CFR 50.92 ANALYSIS FOR CHANGES TO

THE DONALD C. COOK NUCLEAR PLANT

UNITS 1 and 2

TECHNICAL SPECIFICATIONS

1.0 Section to be Changed

A. Unit 1

1. T/S Table 3.3-10, pages 3/4 3-53a

B. Unit 2

1. T/S Table 3.3-11, pages 3/4 3-52a

2.0 Extent of Change

The license amendment request proposes a change to T/S 3.3.3.7 and 3.3.3.8, Tables 3.3-10 and 3.3-11, Units 1 and 2, respectively. The proposed change involves replacing the tabular number of thermistors in Quadrants 1 through 4 with the total number of the thermistors in cable trays in each unit's containment, excluding the reactor coolant pump (RCP) thermistors. The change will also correct the erroneous number of Unit 2 containment thermistors listed in the T/S tables discussed above.

3.0 Specific Changes Requested

(The change numbers in the following discussion refer to those in Section 1.0, above.)

A.1 The changes affect the detector system location and total number of detectors for Unit 1 containment listed in Table 3.3-10 of T/S 3.3.3.7.

Remove Quad 1, Quad 2, Quad 3, and Quad 4, and their corresponding number of detectors and replace with the words "cable trays" and the correct number of thermistors in Unit 1 containment (58).

Replace the seven-asterisk footnote, "Thermistors located in cable trays are assigned to a quadrant based on the location of the thermistor circuit startpoint," with the following, "Thermistors are located within all cable trays, which contain combustible cables, in both upper and lower containment throughout quadrants 1-4."

B.1 The changes affect the detector system location and total number of detectors for Unit 2 containment listed in Table 3.3-11 of T/S 3.3.3.8.

Remove Quad 1, Quad 2, Quad 3, and Quad 4, and their corresponding

number of detectors and replace with the words "cable trays" and the correct number of thermistors in Unit 2 containment (64).

Replace the seven-asterisk footnote, "Thermistors located in cable trays are assigned to a quadrant based on the location of the thermistor circuit startpoint," with the following, "Thermistors are located within all cable trays, which contain combustible cables, in both upper and lower containment throughout quadrants 1-4."

4.0 Discussion

System Description and Safety Function

The function of the fire detection and alarm systems is to provide a means to detect, display, and annunciate the presence of fire in certain areas of the Cook Nuclear Plant. The systems use fire detectors, local control panels, control room control panels, and audible fire alarm annunciations.

Fire detection systems are provided throughout the plant wherever deemed necessary by the fire hazard present or by regulatory requirements. The detection systems are designed to provide quick detection of a fire in the early stages of development. Detection of a fire in the early stages can minimize fire and smoke damage by providing fire alarm annunciation in the appropriate control room. Upon annunciation, the control room operators begin investigation.

The Technical Specifications (T/Ss) impose surveillance requirements to determine that the fire detection system for each fire detection zone is demonstrated to be operable. Verification that a fire detector which is accessible during plant operation can operate is demonstrated at least once per six months by performance of a channel functional test. For fire detectors that are not accessible during plant operation, a channel functional test to demonstrate operability will be performed during each cold shutdown exceeding 24 hours unless performed in the previous six months to demonstrate operability.

The fire system is designed to provide a general plant wide fire alarm notification system. This system alerts plant workers, as well as fire brigade members, that a fire has been reported in the plant. This allows general plant workers to exit the fire area(s) to a safe location and allows the fire brigade to assemble at a predetermined location prior to proceeding to the fire area(s).

The detection systems are designed based on the guidelines of NFPA 72E, good engineering judgement, and actual field conditions. The design of the detection system is based on many factors, which include ceiling

heights, ceiling construction and design, HVAC supply and exhaust systems, expected combustible hazards, expected area temperatures, and miscellaneous obstructions.

Justification

The amendment will correct the number of thermistors listed in our current T/S. The T/S sections that are affected by these changes are T/S 3.3.3.7 and 3.3.3.8, Tables 3.3-10 and 3.3-11, Units 1 and 2, respectively.

The subject T/Ss require that the fire detection instrumentation for each fire detection zone shown in the T/S tables be operable. If this condition is not met, the plant must enter the Action Statement of Section "c" of both T/Ss, which requires the plant to establish a fire watch patrol to inspect the containment zone at least once per eight hours or to monitor the containment air temperature at least once per hour at the locations listed in Specification 4.6.1.5. As a result of the incorrect number of containment thermistors listed in the T/Ss, the action statement must be met even though none of the fire detection devices are inoperable. The total number of thermistors remain constant in Unit 1. The total in the table for Unit 2 is going from 66 to 64 thermistors. This change does not represent a change in the physical design configuration of the fire protection system. This is purely an administrative change.

A design verification of the containment cable trays for both units will be completed prior to the start up of the respective units. This will ensure that cable trays containing combustible cables will be adequately protected with thermistor strings.

5.0 No Significant Hazards Determination

We have evaluated the proposed T/S administrative changes and have determined that the changes should involve no significant hazards consideration. Operation of the Cook Nuclear Plant in accordance with the proposed amendment will not:

(1) Involve a significant increase in the probability or consequences of an accident previously evaluated

The proposed amendment does not involve a significant increase in the probability or consequences of an accident previously evaluated. The correction of the number of thermistors in the T/S tables will not alter the existing T/S requirements or change the components to which they apply. The requirements for fire detection instrumentation will remain the same. No physical changes are being made to the facility as a result of the change. The editorial

changes to the T/Ss will not affect the probability or consequences of an accident in any way. Therefore, the proposed amendment does not involve a change in the probability or consequences of an accident previously evaluated.

(2) Create the possibility of a new or different kind of accident from any previously analyzed

The proposed amendment does not create the possibility of a new or different kind of accident from any previously evaluated. The correction of the number of thermistors in the T/Ss tables will not alter existing T/S requirements. No physical changes are being made to the facility as a result of or in support of this proposed change. Since the requirements for the fire protection instrumentation for containment thermistors will remain the same, this proposed amendment will not affect the outcome of previously evaluated accidents. Therefore, this proposed amendment does not create the possibility of a new or different kind of accident from any previously evaluated.

(3) Involve a significant reduction in a margin of safety

This proposed amendment does not involve a significant reduction in the margin of safety. The correction of the number of containment thermistors listed in the T/S tables will not alter existing T/S requirements or change the components to which they apply. No physical changes are being made to the facility as a result of the change. Since the requirements for the fire protection instrumentation for containment thermistors will remain the same, this proposed amendment will not affect the margin of safety. The editorial changes made to refine the T/Ss will not affect the margin of safety. Consequently, the proposed amendment does not involve a significant reduction in the margin of safety.