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SUBJECT: Forwards description of changes to safe shutdown capability assessment (SSCA) & revised pages to SSCA.

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AEP:NRC:0692BM

Donald C. Cook Nuclear Plants Units 1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
CORRECTIONS TO SAFE SHUTDOWN CAPABILITY ASSESSMENT REPORT

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

Attn: T. E. Murley

July 8, 1988

Dear Dr. Murley:

The purpose of this letter is to submit changes to our Safe Shutdown Capability Assessment (SSCA) report, Revision 1, as discussed during a teleconference on April 19, 1988 with our NRR systems reviewer. This document was submitted by letters AEP:NRC0692AN and AEP:NRC:0692AZ. A detailed description of the changes we have made is included in Attachment 1 to this letter. Attachment 2 contains the revised SSCA pages. Changes to Revision 1 pages are indicated by double margin bars, whereas single margin bars indicate changes in Revision 1 from that contained in the original compliance report (submitted under cover of AEP:NRC:0692E dated March 31, 1983).

Pursuant to 10 CFR 170.12(c), we have enclosed an application fee of $150.00.

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,

M. P. Alexich
Vice President

MPA/eh

Attachments

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cc: D. H. Williams, Jr.
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ATTACHMENT 1 TO AEP:NRC:0692BM

DESCRIPTION OF CHANGES TO SSCA

This attachment describes the rational behind each of the changes that resulted from the discussion with our NRR systems reviewer during the teleconference on April 19, 1988.

Changes to Page 4-56

The last sentence on page 4-56 states that Table 4-4 is an example of the type of printout developed. Since Table 4-4 no longer exists, we are deleting this sentence.

Changes to Page 5-18

The last paragraph on Page 5-18 provides a description of Table 5-6. Since Table 5-6 no longer exists, we are deleting this paragraph. In addition, the list of zones on page 5-18 that require use of Method AS4 was expanded to reflect the information contained in Table 5-1.

Changes to Page 5-19

The first sentence was modified to reflect that Zones 15 and 18 no longer require use of Methods AS4 or AS5.

Changes to Page 5-37

We have changed this page to be consistent with the revised Technical Specification (T/S) action statements. Submitted under cover of AEP:NRC:0692BJ dated June 16, 1988.

Table 5-1

Zones 15 and 18 in Table 5-7, Page 2 of 2 should have been deleted as described above. Table 5-1 is therefore correct in excluding Zones 15 and 18 from its summary of fire zones requiring alternative shutdown. We are therefore providing no changes to Table 5-1.

Changes to Table 5-5

The zones listed on the top of the table (applicable zones) have been expanded to reflect the information contained in Table 5-1.

Changes to Table 5-7

Fire Zones 15 and 18 do not require alternate shutdown capability and therefore page 2 of Table 5-7 should have been deleted. We are therefore deleting page 2 of Table 5-7.

ATTACHMENT 2 TO AEP:NRC:0692BM
REVISED SSCA PAGES

Category 4: Components That Affect Maintenance of RCS Pressure

Components in this category are QRV-51, LV-459C and LV-460D.[1] Spurious operation of these components will be detected by monitoring pressurizer presure, pressurizer level and reactor coolant system temperature instrumentation. This instrumentation will provide information to indicate that, via spurious operation of the auxiliary spray line valve or lack of pressurizer heaters, reactor coolant system pressure control may be impacted.[2] Procedures will identify the specific actions to be taken to ensure that, should pressure control be impacted, isolation of the auxiliary spray line or appropriate reenergization of the pressurizer heaters will occur.

1LV-459C and D are the low pressurizer level interlocks in the heater control circuits. Pressurizer heaters are not required for safe shutdown. Heaters are considered only for operational flexibility.

2Indiana and Michigan Electric Company wishes to note that spurious operation of the auxiliary spray line valve may impact safe shutdown only when the normal charging path is utilized to provide reactor coolant system makeup. This path is not credited as providing reactor coolant system makeup to achieve safe shutdown.

Table 5-3 identifies by system the normal SSS equipment that is lost due to fires in these zones and that must be available to support the CVCS cross-tie method. Note that no normal SSS equipment that is required to support Method AS2 is unavailable due to fires in these areas.

5.3.3 Method AS3

Method AS3, the "Essential Service Water Cross-tie and Support Only" method, is also only required in Fire Zones 29(A,B,E) and 29(C,D,F). These are the Unit 1 and Unit 2 ESW pump areas, respectively. This shutdown method is necessary to address the potential loss of both of the affected units' ESW pumps, discharge valves or strainers for fires in these zones. The method provides for restoration of ESW flow in the fire-affected unit via normally open motorized header cross-tie valves (WMO-705, WMO-706, WMO-707 and WMO-708) that exist outside of these fire zones and are free of fire damage.

Table 5-4 identifies by system the normal SSS equipment that is lost due to fires in these zones and that must be available to support this alternative shutdown method. Note that no SSS equipment that is required to support Method AS3 is unavailable due to a fire in these zones.

5.3.4 Method AS4

Method AS4, the "Local PORV Control Only" method, is required for those areas where loss of necessary PORV control occurs due to loss of supporting EPS or loss of PORV control

Table 5-7 identifies by system the normal SSS equipment that is lost due to fires in Fire Zones 38 and 39 and that must be available to support both Method AS4 and AS5 in these zones.

5.4 Detailed Response to the NRC Clarifications of Generic Letter 81-12

The following information is provided as a detailed response to Enclosure 1 of NRC Memorandum of March 22, 1982, for the fire zones at D.C. Cook Unit 1 and Unit 2 that require alternative shutdown. As stated in Enclosure 1, the information request is merely a rewording of the Section 8 information request contained in Generic Letter 81-12.

The information request contained in Generic Letter 81-12 Section 8, particularly paragraphs (b), (c), (d), (e), (g), (i) and (j), and Clarification Letter Enclosure 1, Paragraphs 1(a) through 1(j), is principally focused on alternative shutdown designs that utilize isolation/transfer and control switches to bypass damaged power or control circuit cabling and equipment. This bypassing of damaged elements by the alternative shutdown system permits restoration of other elements of the safe shutdown systems circuits unaffected by the hypothesized fire. In addition, new circuits and cabling are typically added to reestablish operation and control of necessary normal safe shutdown equipment.

Action: With insufficient system equipment available to maintain this unit in its existing operating mode and support safe shutdown in the opposite unit, restore such minimum capability within 7 days or:

(1) Establish either a continuous fire watch or verify the OPERABILITY of fire detectors and establish an hourly fire watch in those areas of the opposite unit requiring the alternative shutdown system.

If minimum alternative shutdown capability cannot be restored within an additional 60 days, have the opposite unit in HOT STANDBY (Mode 3) within the next 12 hours and HOT SHUTDOWN (Mode 4) within the following 24 hours.

TABLE 5-5

NORMAL SHUTDOWN EQUIPMENT AFFECTED BY A FIRE
WHICH REQUIRES OPERATION POST-FIRE TO SUPPORT METHOD AS4
"LOCAL PORV CONTROL ONLY"

FIRE IN FIRE ZONES 33, 33A, 33B, 34, 34A, AND 34B

SYSTEM	EQUIPMENT	METHOD OF OPERATION
CVCS	None	At least one path free of fire damage
AFW	None	At least one path free of fire damage
MS	MRV-223 MRV-233	Manual operation of SG-2 & SG-3 PORV near panel LSI-2
RCS	None	At least one path free of fire damage
CCW	None	At least one path free of fire damage
EPS	None	At least one path free of fire damage
ESW	None	At least one path free of fire damage
RHR	None	At least one path free of fire damage

TABLE 5-7 (cont)

FIRE IN FIRE ZONES 15 AND 18

INTENTIONALLY DELETED