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ALEXICH, M. P. Indiana & Michigan Electric Co.
RECIP. NAME RECIPIENT AFFILIATION
DENTON, H. R. Office of Nuclear Reactor Regulation, Director (post 851125

SUBJECT: Application for amends to Licenses DPR-58 & DPR-74, changing Tech Spec Tables 3.3-1 & 4.3-1 re reactor trip sys instrumentation, per Generic Ltr 85-09. Fee paid.

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INDIANA & MICHIGAN ELECTRIC COMPANY

P.O. BOX 16631
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January 27, 1986
AEP:NRC:0895D

Donald C. Cook Nuclear Plant Unit Nos.1 and 2
Docket Nos. 50-315 and 50-316
License Nos. DPR-58 and DPR-74
REACTOR TRIP SYSTEM INSTRUMENTATION
TECHNICAL SPECIFICATIONS CHANGE REQUEST

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Denton:

This letter and its attachments constitute an application for amendment to the Technical Specifications (T/Ss) for the Donald C. Cook Nuclear Plant Unit Nos. 1 and 2. The reasons for the proposed changes and our analyses concerning significant hazards considerations are contained as Attachment 1 to this letter. A Westinghouse safety analysis and a confirmation letter from Exxon Nuclear Company for one of the proposed changes is contained as Attachment 2 to this letter. The proposed revised T/Ss pages are contained as Attachment 3.

Specifically, several changes to both Table 3.3-1 and Table 4.3-1 are being submitted. The request includes changes suggested by Generic Letter 85-09 and required by the SER attached to Amendments 86 and 72, and a proposed change to delete the Reactor Coolant Pump Breaker Position Trip above permissive P-8.

We believe that the proposed changes will not result in (1) a significant change in the types of effluents or a significant increase in the amounts 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 (PNSRC) and the Nuclear Safety and Design Review Committee (NSDRC).

In compliance with the requirements of 10 CFR 50.91(b)(1), copies of this letter and its attachments have been transmitted to Mr. R. C. Callen of the Michigan Public Service Commission and Mr. G. Bruchmann of the Michigan Department of Public Health.

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

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

Very truly yours,

M. P. Alexich
Vice President

cm

Attachments

cc: John E. Dolan
W. G. Smith, Jr. - Bridgman
R. C. Callen
G. Bruchmann
G. Charnoff
NRC Resident Inspector - Bridgman

ATTACHMENT 1 TO AEP:NRC:0895D

REASONS AND 10 CFR 50.92 ANALYSES FOR

CHANGES TO THE

DONALD C. COOK NUCLEAR PLANT UNIT NOS. 1 AND 2

TECHNICAL SPECIFICATIONS

The proposed changes to Tables 3.3-1 and 4.3-1 which incorporate the changes suggested by Generic Letter 85-09 and required by the SER attached to Amendments 86 and 72 have been reviewed for specific application to the Donald C. Cook Nuclear Plant. We concluded that there is no reason, technical or licensing, to preclude implementation of the T/Ss with these changes. Because we have found no plant-specific problems, because the Commission has approved these T/Ss on a generic level, and because these changes constitute additional requirements not presently included in the T/Ss, we believe these changes do not involve a significant hazards consideration as defined in 10 CFR 50.92.

The remaining proposed T/Ss changes involve changes to Table 3.3-1, Bases page 2-8 and Action Statement 10 for both Units 1 and 2. The proposed change to Table 3.3-1, Functional Unit 20A, and the Bases would allow us to delete the Reactor Coolant Pump Breaker Position Trip above permissive P-8. This trip was included in the T/Ss to allow operation at partial power with only three reactor coolant loops operating. D. C. Cook is not licensed for three-loop operation and therefore cannot utilize the intended purpose of this T/S. However, we have recently experienced a problem with this trip. Currently when one of the Critical Reactor Instrumentation Distribution Inverters fails, a signal is sent to the Reactor Protection Logic indicating that a reactor coolant pump has tripped. This causes a reactor trip if we are operating above the permissive P-8. The proposed change will allow us to avoid a reactor trip caused by a single inverter failure. If in fact two inverters fail, which would confirm an RCP failure due to loss of power, the reactor will trip on the RCP Position Trip above P-7. In addition, adequate protection is provided by the RCP trips on Loss of Flow--Single Loop (above P-8), Undervoltage and Underfrequency. We believe that the deletion of this trip will be beneficial to plant operations since we cannot use the trip for its intended purpose and the trip causes unnecessary challenges to the reactor protection system. This change is consistent with the industry trip reduction effort.

Action 10, the appropriate action statement for Functional Unit 20A, is being deleted since it will no longer be used. Also, Action 8 is being deleted, as an editorial change, since it is not used on Table 3.3-1.

Westinghouse has analyzed the consequences of removing this input signal and recommended the proposed T/S changes to Table 3.3-1 and the Bases page B 2-8 for Unit 1. Exxon Nuclear Company has confirmed that no credit was taken for this reactor trip input signal in their safety analyses, and has recommended this change for Unit 2. Based on the above, we believe that this change may result in some increase to the probability or consequences of a previously analyzed accident or may reduce in some way a safety margin but the results of the change are clearly within all acceptable criteria with respect to the system or component specified in the safety analysis. Therefore, we believe this change does not involve a significant hazard consideration as defined by 10 CFR 50.92.

ATTACHMENT 2 TO AEP:NRC:0895D

WESTINGHOUSE ANALYSIS OF THE

PROPOSED TECHNICAL SPECIFICATIONS CHANGES

REGARDING DELETION OF THE

REACTOR COOLANT PUMP BREAKER POSITION TRIP

ABOVE PERMISSIVE P-8

Westinghouse Electric Corporation
Water Reactor Divisions

Nuclear Services Integration Division
Box 2728
Pittsburgh Pennsylvania 15230-2728

AEP-85-792
August 29, 1985

REF: AEPT 271
File: AEP-2.4

Mr. P. Infanger, Engineer
Nuclear Operations
American Electric Power Service Corporation
One Riverside Plaza
Columbus, Ohio 43216

American Electric Power Service Corporation
D. C. Cook Units 1 and 2
Deletion of RT on RCP Breaker Position

Dear Mr. Infanger:

Below is Westinghouse's response to your inquiry regarding D. C. Cook Unit 1's current accident analysis (loss of reactor coolant flow) and the deletion of reactor trip on reactor coolant pump breaker position above P-8.

D. C. Cook Unit 1's current loss of reactor coolant flow accident analysis as described in the reload transition safety report (RTSR) of May, 1983, does take credit for the deletion of reactor trip on RCP breaker position above P-8. The current protection system logic is such that the reactor is tripped on RCP breaker position only where there are at least two breaker open position signals above P-7 (ref. 1). As described in D. C. Cook Unit 1's RTSR, each RCP is on a separate bus, and thus, a single bus fault would not result in the loss of more than one pump.

The loss of power to two RCP's would cause two RCP breaker open positions. However, this would result in a trip via RCP undervoltage logic. A reactor trip signal generated by undervoltage to 2 of 4 RCP's would occur prior to a reactor trip signal generated by low reactor coolant flow due to the loss of two RCP's.

As such, the most limiting credible partial loss of flow is the loss of one pump from nominal full power conditions with four loops operating which was described in D. C. Cook Unit 1 RTSR.

If you have any questions, please contact me.

Very truly yours,

A. P. Suda, Manager
Great Lakes Area
Projects Department

APS/debi
5080f:12

cc: P. Infanger, 1L
W. G. Smith, 1L
M. P. Alexich, 1L

EXXON NUCLEAR COMPANY, INC.

600 108TH AVENUE NE, PO BOX 90777, BELLEVUE, WA 98009
(206) 453-4300

June 20, 1985
ENC-AEP/0457

c.f 6/24

Mr. George John, Sr. Engineer
Indiana & Michigan Electric Co.
c/o American Electric Power
One Riverside Plaza
Columbus, OH 43216-6631

Ref.: Letter, G. John to H. G. Shaw, "Deletion of RCP Breaker Position Reactor Trip," dated June 12, 1985 (AEP/ENC/0176)

Dear George,

This letter responds to your request, transmitted in the reference, for confirmation that ENC took no credit for reactor trip on reactor coolant pump (RCP) breaker position above the P-8 interlock setpoint of 31% of rated power in D. C. Cook Unit 2 safety analyses for Cycle 5 and Cycle 6. We understand that AEP intends to delete the Technical Specification requirement for this trip. No ENC safety analyses for D. C. Cook Unit 2 Cycles 5 and 6 employed this reactor trip function.

Please feel free to contact our Mr. F. T. Adams at (509)375-8178 should further questions arise in regard to this information.

Sincerely,

H. G. Shaw
Contract Administrator

dl

c: M. P. Alexich
J. L. Bell
J. M. Cleveland