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N. S. Carns
Vice President
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April 10, 1990

2CAN049007

U. S. Nuclear Regulatory Commission
Document Control Desk
Mail Station P1-137
Washington, DC 20555

Subject: Arkansas Nuclear One - Unit 2
Docket No. 50-368
License No. NPF-6
TS Change Request - Table 3.3-1

Gentlemen:

AP&L has identified a discrepancy in Technical Specification (TS) Table 3.3-1, regarding the applicable operational modes for certain reactor protective instrumentation operability requirements. Specifically, operability requirements for several functional units are presently denoted as applicable in modes "1, 2 and *", whereas AP&L has determined that "1, 2 or *" is actually correct. This determination was the result of an evaluation of the TS and its applicability based on the associated SAR Chapter 15 accident analyses. This evaluation was initiated in response to difficulties which resulted from a literal interpretation of the existing TS, as described in LER 50-368/89-001 dated May 30, 1989 (2CAN058915).

AP&L therefore proposes to correct the applicable modes statements for TS Table 3.3-1 as mentioned above. A copy of the proposed change is attached for your review and approval.

In accordance with 10CFR50.91(a)(1), and using the criteria in 10CFR50.92(c), AP&L has determined that the proposed change involves no significant hazards consideration. Our basis for this determination is also attached for your review. The circumstances of the proposed change are neither exigent nor emergency.

AP&L requests that the effective date for this change be 30 days after NRC issuance of the amendment to allow for distribution and procedural revisions necessary to implement this change.

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Very truly yours,

N. S. Carns

NSC/rbt
Attachments

cc: Mr. Robert Martin
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STATE OF ARKANSAS)
) SS
COUNTY OF POPE)

I, N. S. Carns, being duly sworn, subscribe to and say that I am Vice President, Nuclear for Arkansas Power & Light Company; that I have full authority to execute this oath; that I have read the document numbered 2CAN049007 and know the contents thereof; and that to the best of my knowledge, information and belief, the statements in it are true.

N. S. Carns

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for the County and State above named, this 10 day of April, 1990, 1990.

Notary Public

My Commission Expires:
6-30-90

ATTACHMENT

PROPOSED TECHNICAL SPECIFICATION CHANGES

LICENSE AMENDMENT REQUEST

IN THE MATTER OF AMENDING

LICENSE NO. NPF-6

ARKANSAS POWER & LIGHT COMPANY

ARKANSAS NUCLEAR ONE, UNIT 2

DOCKET NO. 50-368

DESCRIPTION OF PROPOSED CHANGE

AP&L proposes to modify the applicable operational modes statements listed for several reactor protective instrumentation functional units in Technical Specification (TS) Table 3.3-1. The present statement of these applicable modes is "1, 2 and *", whereas the correct statement should be "1, 2 or *", to be strictly consistent with the associated SAR Chapter 15 accident analysis.

TS 3.3-1 requires a minimum of reactor protective system instrumentation to be operable as listed in Table 3.3-1. The operability of these systems assure that the overall reliability, redundancy and diversity assumed available in the plant design for the protection and mitigation of accident and transient conditions is provided.

BACKGROUND

AP&L Licensee Event Report (LER) 50-368/89-001 describes operational difficulty (a misinterpretation of the TS requirements), which resulted in failure to comply with TS requirements associated with Table 3.3-1, due to personnel error. A contributing factor was determined to be that the requirements are not explicit and are stated in a manner such that the applicable modes of operation for Table 3.3-1 are not clear. An evaluation of the bases for TS Table 3.3-1 determined that the applicable modes statement should be corrected.

DISCUSSION

The existing statement of modes "1, 2 and *" should actually be "1, 2 or *". The asterisk is referenced in the table notation as "With the protective system trip breakers in the closed position and the CEA drive system capable of CEA withdrawal." It was determined that the protection system operability requirements are applicable not only in Mode 2, but to all subcritical modes (3, 4 and 5) where Control Element Assembly (CEA) withdrawal is possible.

The ANO-2 SAR Chapter 15 accident analysis for an "uncontrolled CEA withdrawal from a subcritical condition" (Section 15.1.1) credits the reactor protection instrumentation. This event could be initiated either by a malfunction in the CEA control system or by operator error. This CEA withdrawal adds reactivity to the initially subcritical reactor core and causes both the core power level and core heat flux to increase. The reactor protection system is designed to prevent such a transient from exceeding the safety limit on departure from nucleate boiling ratio (DNBR). Protection against this event must therefore be provided whenever a powered withdrawal of the CEAs can occur. This is the basis for the asterisked condition in Table 3.3-1.

AP&L therefore proposes to correct Table 3.3-1 by changing the appropriate applicable mode statements from "1, 2 and *" to "1, 2, or *".

DESCRIPTION OF PROPOSED NO SIGNIFICANT HAZARDS DETERMINATION

In accordance with 10CFR50.92, AP&L has evaluated whether the proposed change involves a significant safety hazards consideration. AP&L has concluded that the proposed change to TS Table 3.3-1 does not involve a significant hazards consideration because the operation of Arkansas Nuclear One, Unit 2 in accordance with this change would not:

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

The proposed change will assure that the reactor protective instrumentation assumed available to mitigate the consequences of an accident previously evaluated (subcritical CEA withdrawal) are explicitly required in the appropriate operational modes by TS Table 3.3-1. The accident mitigation features of the plant are not affected by the proposed change.

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

No new possibility for an accident is introduced by assuring the specific protective instrumentation required for a previously evaluated accident is available. The proposed change simply assures the available protection is required operable by clarifying the stated conditions.

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

The proposed change should represent an increase in the margin of safety in that the potential for misinterpretation of the associated operability requirements will be reduced. The overall safety function of the reactor protection instrumentation is not altered by the proposed change.

The NRC has provided guidance concerning the application of these standards by providing examples of changes involving no significant hazards considerations. The proposed amendment most closely matches example (ii): A change that constitutes an additional limitation, restriction, or control not presently included in the technical specifications, e.g., a more stringent surveillance requirement. The proposed change will require operability of certain reactor protective instrumentation in operational modes and conditions which were not explicitly required previously.

Therefore, based on the evaluation discussed above, AP&L has concluded that the proposed change does not involve a significant hazards consideration.