



ARKANSAS POWER & LIGHT COMPANY  
P. O. BOX 551/LITTLE ROCK, ARKANSAS 72203/(501) 377-3525

June 13, 1989

T. GENE CAMPBELL  
Vice President - Nuclear

1CAN068908

U. S. Nuclear Regulatory Commission  
Mail Stop: OWFN 13-D-18  
Washington, DC 20555

ATTN: Mr. Frederick J. Hebdon, Director  
Project Directorate - IV  
Division of Reactor Projects -  
III, IV, V and Special Projects

SUBJECT: Arkansas Nuclear One - Unit 1  
Docket No. 50-313  
License No. DPR-51  
TS Change Request - Clarification of TS 3.4.1.4

Dear Mr. Hebdon:

Arkansas Power & Light (AP&L) has identified a change to ANO-1 Technical Specification (TS) 3.4.1.4 which is necessary to clarify an apparent ambiguity in the interpretation of the relationship of this Limiting Condition for Operation (LCO) to an associated surveillance requirement. This was identified as a reason for a violation in our notice of violation response dated May 5, 1989 (0CAN058901) and, when changed, should help prevent recurrence of the violation. TS LCO 3.4.1.4 specifies that the reactor shall not be heated above 280°F unless both Emergency Feedwater (EFW) pumps and their flow paths are operable. Surveillance Requirement 4.8 describes the periodic testing required to demonstrate the operability of the EFW pumps and associated valves. Surveillance Requirement 4.8.1(a)1. specifies the performance criteria for the steam turbine driven EFW pump (in terms of minimum discharge pressure and flow) which must be verified at least once per 31 days or upon achieving Reactor Coolant System (RCS) hot shutdown conditions (RCS temperature > 525°F) following a plant heatup and prior to reactor criticality. However, prior to RCS heatup above 280°F, there is insufficient steam energy in the steam generators to allow the EFW pump steam turbine to drive the pump to the minimum required discharge pressure and flow. Therefore, LCO 3.4.1.4 and the associated Surveillance Requirement 4.8.1(a)1. have historically been interpreted as allowing demonstration of operability of the steam turbine driven EFW pump after completion of plant heatup, instead of prior to exceeding 280°F RCS temperature.

AP&L has recently determined that performance of a limited test of the steam turbine driven pump is prudent prior to RCS heatup above 280°F, followed by demonstration of operability upon completion of RCS heatup to hot shutdown conditions, which then allows performance of the surveillance testing defined by 4.8.1(a)1. AP&L therefore proposes to add a note of clarification to TS LCO 3.4.1.4 to assure unambiguous interpretation of this requirement.

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Mr. Frederick J. Hebdon  
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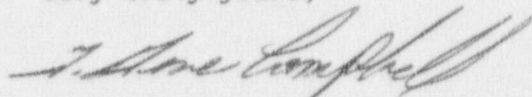
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June 13, 1989

In accordance with 10CFR50.91(a)(1), and using the criteria in 10CFR50.92(c), AP&L has determined that this change involves no significant hazards consideration. Our basis for this determination and copies of the proposed change are attached for your review. Although the circumstances of this amendment request are neither exigent or emergency, AP&L requests prompt NRC review and approval. Prompt implementation of this proposed change will prevent possible recurrence of a TS violation due to ambiguous interpretation of the relationship between the LCO and associated surveillance requirement.

Also, in accordance with 10CFR50.91(b)(1), a copy of this amendment request and attachments have been sent to Ms. Greta Dicus, Director, Division of Radiation Control and Emergency Management, Arkansas Department of Health.

Very truly yours,



T. Gene Campbell

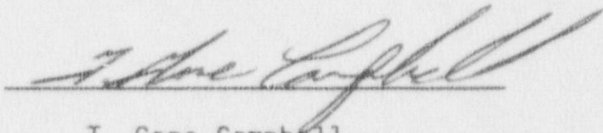
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Attachments

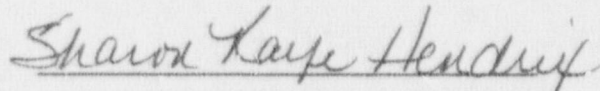
cc: Ms. Greta Dicus, Director  
Division of Radiation Control  
and Emergency Management  
Arkansas Department of Health  
4815 West Markham Street  
Little Rock, AR 72201

STATE OF ARKANSAS )  
                          )           SS  
COUNTY OF PULASKI )

I, T. Gene Campbell, 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 ICAN068908 and know the contents thereof; and that to the best of my knowledge, information and belief the statements in it are true.

  
T. Gene Campbell

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for the County and State above named, this 13<sup>th</sup> day of June, 1989.

  
Notary Public

My Commission Expires:  
9-19-89



## DESCRIPTION OF CHANGE

The proposed amendment would add a note to Technical Specification 3.4.1.4 to clarify that a limited test (with available steam pressure) of the steam turbine driven Emergency Feedwater (EFW) pump prior to exceeding an RCS temperature of 280°F is sufficient demonstration of its functionality until completion of plant heatup to hot shutdown conditions (RCS temperature greater than 525°F), when adequate secondary steam pressure is available to allow performance of testing per Surveillance Requirement 4.8.1(a)1.

TS 3.4.1.4 specifies that the reactor shall not be heated above 280°F unless both EFW pumps and their flow paths are operable. Surveillance Requirement 4.8 describes the testing required to demonstrate the operability of the EFW pumps and associated valves. Surveillance Requirement 4.8.1(a)1. defines the specific performance criteria for the steam turbine driven EFW pump (in terms of minimum discharge pressure and flow) which must be verified at least once per 31 days or upon achieving RCS hot shutdown conditions following a plant heatup and prior to reactor criticality. However, prior to RCS heatup above 280°F, there is insufficient steam energy in the steam generators to allow the EFW pump steam turbine to drive the pump to the minimum required discharge pressure and flow. Therefore, TS 3.4.1.4 and the associated Surveillance Requirement 4.8.1(a)1. have historically been interpreted as allowing demonstration of operability of the steam turbine driven EFW pump after completion of plant heatup, instead of prior to exceeding 280°F RCS temperature.

AP&L has recently determined that performance of a limited test of the steam turbine driven pump is prudent prior to RCS heatup above 280°F, followed by demonstration of operability upon completion of RCS heatup to hot shutdown conditions, which then allows performance of the surveillance testing defined by 4.8.1(a)1. AP&L therefore proposes to add a note of clarification to TS 3.4.1.4 to assure unambiguous interpretation of this requirement.

## BASES FOR PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

In accordance with 10CFR50.92, AP&L has evaluated whether the proposed change involves a significant hazards consideration. AP&L has concluded that the proposed change to clarify Specification 3.4.1.4 does not involve a significant hazards consideration because operation of Arkansas Nuclear One, Unit-1 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 would not alter the probability of any previously analyzed accident occurring. The proposed change simply clarifies the testing to verify functionality of the turbine driven EFW pump associated with its TS limiting condition for operation (LCO). This will not impact the accident-initiating events described in Chapter 14 of the ANO-1 SAR. Further, the proposed change will not adversely affect the consequences of accidents which have been previously evaluated. The proposed change simply reflects the requirement for an additional, limited test of the turbine driven EFW pump, which should increase the system reliability and therefore increase the ability to mitigate the consequences of postulated accidents.

- (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 clarifying the requirements for testing of the turbine driven EFW pump. The proposed amendment will not change the overall design and system function of the EFW system. The proposed change simply eliminates the potential for misinterpretation of the relationship between a limiting condition for operation and a related surveillance requirement.

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

The proposed change reflects the addition of a limited test which will improve system reliability and confidence in the availability of the turbine driven EFW pump during plant heatup. This additional limited test does not involve a significant reduction in the margin of safety, and in fact will increase the margin of safety by the additional verification of the proper functioning of the EFW system, and therefore its capabilities to mitigate accidents.

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 reflects the additional requirement for performance of a limited test of the steam turbine driven EFW pump which is performed before RCS heatup above 280°F. This test verifies the availability of the pump during plant heatup, until adequate secondary steam conditions are available to perform the testing defined by the existing associated surveillance requirement, which demonstrates the operability of the pump.

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