



ARKANSAS POWER & LIGHT COMPANY  
 CAPITOL TOWER BUILDING/P. O. BOX 551/LITTLE ROCK, ARKANSAS 72203/(501) 377-3525  
 May 9, 1988

T. GENE CAMPBELL  
 Vice President - Nuclear

2CAN058802

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

ATTN: Mr. Jose Calvo, Project Director  
 Project Directorate - IV  
 Division of Reactor Project - III,  
 IV, V and Special Projects

SUBJECT: Arkansas Nuclear One - Unit 2  
 Docket No. 50-368  
 License No. NPF-6  
 Request for Emergency License Amendment  
Technical Specification 3.1.3.4 - CEA Drop Time

Dear Mr. Calvo:

As described in our letter dated May 5, 1988 (2CAN058801) and recent discussions with you, AP&L requested immediate relief from ANO-2 Technical Specification (TS) 3.1.3.4, which specifies the maximum drop time for individual Control Element Assemblies (CEAs). A change in the measurement methodology revealed that the indicated drop time for certain CEAs exceeds the 3.0 seconds specified by TS 3.1.3.4. Temporary relief was subsequently granted via a waiver of compliance to allow startup and operation of ANO-2 at power levels up to 30% by letter dated May 6, 1988 (2CNA058801). This waiver was granted under the condition that an emergency amendment request would be submitted by 5:00 P.M. EST on Monday, May 9. In addition to the information provided in our May 5 submittal, AP&L has performed further evaluations to support an increased CEA drop time TS limit of 3.2 seconds for full power operation. Attached is the proposed revision to TS 3.1.3.4 and the detailed justification for this TS change request. AP&L has evaluated the proposed change in accordance with 10CFR50.91(a)(1) using the criteria in 10CFR50.92(c) and determined that the change involves no significant hazards consideration. The bases for this determination are included as an attachment to this proposed change submittal.

8805110093 880509  
 PDR ADOCK 05000368  
 P DCD

A001  
 1/1  
 w/check \$150  
 #05-8096

On May 7, 1988 ANO-2 went critical and began startup physics testing, as permitted by NRC's May 6, 1988 waiver. One requirement of this testing program is to insert each CEA into the core until a change in reactivity is noted. The response noted when testing CEA 08 appears to indicate that the CEA is not coupled to its extension shaft. Therefore, we are unable to remove this CEA from the core. Other comparisons also support this conclusion. Without the CEA coupled ANO-2 is unable to proceed with startup testing or power operation. Combustion Engineering designed reactors require the removal of the reactor vessel head to recouple the CEA. These actions along with an investigation to determine the cause of the decoupling are anticipated to take between 11 to 19 days.

Sufficient justification is provided below to process this request as an emergency Technical Specification change per 10CFR50.91(a)(5). However, because of the delay in startup there may be sufficient time to process this amendment request under the exigent provision of 10CFR50.91(a)(6). We request that the staff evaluate these options and proceed with the appropriate method which will support our earliest projected restart date of May 20, 1988.

The need for this amendment was discovered during startup testing following refueling when implementation of a newly developed CEA drop time testing methodology resulted in the discovery of a uniform delay in CEA drop times. The delayed drop times have resulted in some CEAs slightly exceeding the limits of TS 3.1.3.4. Testing via individual CEA drops, consistent with methods used since initial startup testing, continues to provide acceptable results; however, rather than simply revert to the original test methodology, AP&L pursued the root cause of the discrepancy and concluded the cause to be related to the time constants of the circuit configurations. Since the circuit configuration of the newly developed test methodology is more typical of the conditions of an actual reactor trip, AP&L concluded that it is in the best interest of safety to explicitly account for the longer CEA drop time in the Technical Specifications and thereby submit the evaluation for NRC review.

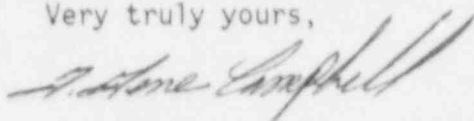
Since the CEA drop time testing is, by nature of the test, performed just prior to restart, failure to obtain relief from the requirements of the Technical Specifications will delay restart. As previously mentioned AP&L anticipates being prepared to go critical between May 20-28, 1988. AP&L and the Middle South Utilities system experience the highest demand for electrical power during the summer months. Late May and June typically mark the beginning of the higher summer demand. With the exception of our small hydro capacity the ANO units represent the most economical source of generation on the AP&L system. The unavailability of ANO-2 would require the operation of more costly fossil fired units and/or the purchase of electricity from other utilities during a time when wholesale rates are typically much higher than the generation cost of ANO-2. It is estimated that during this period of interest the generation of power from ANO-2 would save AP&L and its ratepayers approximately \$350,000 per day based on average replacement power costs. Therefore, any delay in granting the Technical Specification change beyond the time when ANO-2 is prepared for restart would represent an undue economic burden upon AP&L and its ratepayers.

May 9, 1988

Since the new testing methodology was not intended nor expected to result in longer measured CEA drop times, AP&L could not reasonably have foreseen the need for this amendment. Once the problem was identified, AP&L acted promptly to inform NRC, perform necessary evaluations, and submit this request for license amendment. Therefore, the circumstances of this amendment request are consistent with that required for treatment as an emergency amendment per 10CFR50.91(a)(5) and your expeditious processing is requested.

A copy of this amendment request has been sent to Ms. Greta Dicus, Director, Division of Environmental Health Protection, State Department of Health, in accordance with 10CFR50.91(b)(1). Pursuant to 10CFR170.12(c), we are including a check in the amount of \$150.00 as an application fee for the processing of this amendment.

Very truly yours,



T. Gene Campbell

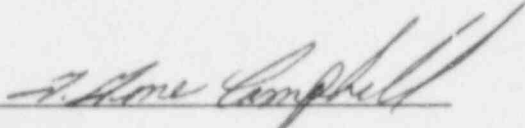
TGC:as

Attachments

cc: Ms. Greta Dicus, Director,  
Division of Environmental Health Protection  
State Department of Health  
4815 West Markham Street  
Little Rock, AR 72201

STATE OF ARKANSAS    )  
                              )  
COUNTY OF PULASKI    )            SS

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 2CAN058802 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 8<sup>th</sup> day of May, 1988.

  
\_\_\_\_\_  
Notary Public

My Commission Expires:

9-19-89