



May 12, 1994

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U. S. Nuclear Regulatory Commission  
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Subject: Arkansas Nuclear One - Unit 2  
Docket No. 50-368  
License No. NPF-6  
Close-out Of TAC #s M-61996, 75923, and 80705

Gentlemen:

The NRC ANO-2 NRR Project Manager requested information regarding the subject TAC items in order to document final closure of each item. The following information is provided:

**Fire Barrier Penetration Testing Program (TAC # M-61996)**

Arkansas Nuclear One (ANO) provided a narrative description of our Fire Barrier Seal Program in a letter to the NRC dated March 6, 1990 (0CAN039006). In that letter we stated our intention to complete a 100% inspection of all technical specification fire penetration seals by December 31, 1991. This commitment was documented in the NRC's Safety Evaluation of the adequacy of our Fire Barrier Penetration Seal Program in correspondence dated August 7, 1990 (0CNA089004). In a letter dated December 20, 1991 (0CAN129106), we subsequently requested a 90 day extension to March 31, 1992, to complete the ANO-2 seal evaluations.

The fire barrier penetration seal inspection was performed per ANO work plan 1409.205, "Fire Barrier Penetration Inspection." This item was tracked as ANO Business Plan item D.5.c, "Engineering Improvement Program - Penetration Seal Program Assessment." The technical specification fire barrier penetration walkdown was completed by December 20, 1991. Unit 2 seals which did not meet design drawings were reviewed and dispositioned by March 31, 1992, in accordance with our commitment in the December 20, 1991, letter.

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**ANO-2 Hydrogen Monitoring Modification (TAC # M-75923)**

In correspondence dated August 25, 1989 (0CAN088914), ANO informed the NRC that during the course of evaluating an internally identified design deficiency, ANO determined that specific features of the ANO-2 hydrogen sampling system were not in full compliance with provisions of NUREG-0737, Item II.F.1, Attachment 6. The NUREG requires that hydrogen monitoring be functioning within 30 minutes of the onset of safety injection. Contrary to the guidance of NUREG-0737, ANO's procedures provided that hydrogen monitoring be initiated within 24 hours. ANO requested a waiver from the 30 minute requirement.

The staff responded to ANO's request for a waiver of compliance in a letter dated August 30, 1989 (0CAN088907). They concluded that a waiver in this instance was not necessary since the commitment was not addressed in the ANO-2 Technical Specifications and a reasonable assurance of safety existed. Instead, the staff evaluated the acceptability of ANO's inability to meet the 30 minute criterion for the hydrogen sampling system until the next refueling outage which began in September 1989. The NRC stated that ANO's changes to the emergency operating procedures to require functioning of the system within 3 hours in conjunction with the development of special instructions and the assembling of tools was an acceptable temporary alternative to the 30 minute criterion.

In correspondence to the NRC dated January 9, 1990 (0CAN019008), ANO provided its long-term resolution to Unit 2's hydrogen monitoring capabilities and requested relief from the 30 minute criterion specified in NUREG-0737. The NRC reviewed the January 9th letter and denied the request for relief (0CNA119022 dated November 30, 1990). The Staff requested a 60 day response for ANO to address planned actions to meet the 30 minute criterion. In correspondence dated February 5, 1991 (0CAN029106), ANO committed to make the necessary modifications for ANO-2 prior to startup following the ninth refueling outage, 2R9.

Design change package (DCP) 91-2003, "ANO-2 Hydrogen Monitoring Modification," was installed in October 1992 during 2R9. It modified the ANO-2 hydrogen monitoring system to reduce the sampling time below 30 minutes to meet NUREG-0737 Item II.F.1, Attachment 6. This design change reduced the sample piping volume by 2/3 and provided enhanced control room operation of the hydrogen analyzers. The modifications included replacing or adding hand switches, lights, relays, terminal blocks, and fuse blocks. Two existing spare solenoid valves were upgraded to be environmentally qualified to assure operation post-LOCA. Non-Q flow indication was provided in the control room.

**Electrical Power System (TAC # M-80705)**

A Technical Specification Change Request was submitted on June 18, 1991 (2CAN069106), to provide for conserving starting air for emergency diesel generators (EDGs) in the event of an engine failure to start upon receipt of a safety injection actuation signal (SIAS).

The previous design of the EDG starting circuit bypassed the start failure upon receipt of SIAS. In this case, in conjunction with a loss of offsite power, the EDG would have continued to crank until all air was depleted. If the EDG failed to start initially during a loss of offsite power condition concurrent with SIAS, no air compressors would have been available for recharging the depleted air tank for subsequent restart attempts following correction of the starting problem. The removal of the automatic bypass of the overcrank trip upon an SIAS preserves engine starting air for additional restart attempts.

The requested effective date for implementation of this technical specification change was during refueling outage 2R9. DCP 85-2134, "SIAS Removal from Unit Auxiliary Transformer 4160 Volt Breakers and Emergency Diesel Generator Start Failure," was installed in October 1992 during 2R9.

Very truly yours,



*See*  
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Director, Licensing

DCM/dwb

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