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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
Steam Generator Sample Valve SIAS Signal

Gentlemen:

NRC Bulletin 79-06B requested that all operators of Combustion Engineering designed pressurized water reactors review the operational errors and system misalignments which occurred during the Three Mile Island incident. Action 3 of the bulletin requested licensees to "Review the containment isolation initiation design and procedures, and prepare and implement all changes necessary to permit containment isolation, whether manual or automatic, of all lines whose isolation does not degrade needed safety features or cooling capability, upon automatic initiation of safety injection".

Arkansas Nuclear One (ANO) reviewed the subject information and responded in a letter dated April 24, 1979 (2CAN047912), identifying the steam generator blowdown sample valves 2CV-5852-2 and 2CV-5859-2 as Category IV valves that were not necessary to be open following receipt of a safety injection actuation signal (SIAS). This letter also stated:

"Items in Category IV are normally open during power operation and specific manual operation is required to close these valves following receipt of a SIAS. Each of the Category IV systems were reviewed and it has been verified that a direct connection between the Containment Building atmosphere and the Auxiliary Building atmosphere or the environment does not exist while these penetrations are open. Based on this fact, no changes to the Containment Building Isolation System are needed.

However, to further increase the margin of safety, a design change is being evaluated for items in Category III and IV to add a SIAS to those valves. This design change will provide an additional degree of assurance that no release path to the environs exists

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upon receipt of a SIAS without a concurrent CIAS (containment isolation actuation signal)."

A design modification was initiated in response to Bulletin 79-06B and a safety injection actuation signal was added to the steam generator blowdown sample valves during the first refueling outage (2R1) in early 1980.

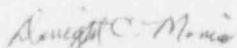
In light of the Palo Verde Unit 2 steam generator tube rupture event, ANO has reassessed the basis for SIAS-initiated closure of the steam generator blowdown sample valves. This event highlighted the need for radiation measurement to provide an early indication of a steam generator tube leakage condition. Continued use of the steam generator blowdown sample lines would have provided useful information to the operators which should have enabled them to identify the affected steam generator. Since both steam generator blowdown sample valves were isolated early in the Palo Verde Unit 2 sequence of events, additional time was required to determine that a tube rupture event had occurred and to take the appropriate action.

After reviewing the implications of a potential steam generator tube rupture event which could cause SIAS without initiating CIAS, it was concluded that continued radiation monitoring of the steam generator blowdown could lead to earlier identification and isolation of the affected steam generator. Due to the potential increased safety benefit from maintaining the radioactivity monitoring capability by not isolating the steam generator blowdown sample valves, ANO modifies its commitment to have a safety injection actuation signal applied to the steam generator blowdown sample valves 2CV-5852-2 and 2CV-5859-2.

A limited change package (LCP-93-6026) has been approved for installation during the current refueling outage (2R10) to remove the SIAS from the two sample isolation valves. The LCP and its associated 10 CFR 50.59 evaluation have been approved by the ANO Plant Safety Committee.

Should you have any questions regarding this submittal, please contact me.

Very truly yours,


Dwight C. Mims
Director, Licensing

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cc: Mr. Leonard J. Callan
Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011-8064

NRC Senior Resident Inspector
Arkansas Nuclear One - ANO-1 & 2
Number 1, Nuclear Plant Road
Russellville, AR 72801

Mr. George Kalman
NRR Project Manager Region IV/ANO-1
U. S. Nuclear Regulatory Commission
NRR Mail Stop 13-H-3
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

Mr. Thomas W. Alexion
NRR Project Manager, Region IV/ANO-2
U. S. Nuclear Regulatory Commission
NRR Mail Stop 13-H-3
One White Flint North
11555 Rockville Pike
Rockville, MD 20852