



Entergy Operations, Inc.
1448 S.R. 333
Russellville, AR 72801
Tel 501-858-4888

Craig Anderson
Vice President
Operations ANO

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Subject: Arkansas Nuclear One - Unit 2
Docket No. 50-368
License No. NPF-6
Commitments Related to Continued Operation Until 2R14
(TAC NO. MA8418)

Gentlemen:

Entergy Operations is committed to the continued safe operation of the Arkansas Nuclear One (ANO) facility. Since the last ANO Unit 2 (ANO-2) mid-cycle steam generator inspection outage (2P99), Entergy has interacted with the NRC Staff in the evaluations of the outage results. Entergy's assessment of the results indicated the unit can be safely operated, in conformance with the existing licensing basis and commitments to NEI 97-06, until the steam generator replacement outage in September of this year. The NRC Staff is still reviewing the most recently submitted information supporting this conclusion.

On March 9, 2000 (2CAN030003), Entergy Operations submitted a proposed ANO-2 license change to allow risk-informed operation with respect to steam generator degradation for the remainder of the 14th operational cycle. Additional information in support of this proposed change has been provided to the NRC in subsequent correspondence. The proposed license change is currently under Staff review.

To provide added assurance that ANO-2 will remain safe to operate for the remainder of cycle 14, Entergy Operations has identified additional enhancements to our operation. These enhancements are focused on mitigating the damage mechanism affecting the ANO-2 steam generators, enhancing plant operator response to primary-to-secondary leakage events, and reducing offsite dose consequences should a design basis or severe accident occur. The following actions will remain in effect until ANO-2 is shutdown for steam generator replacement:

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- ANO-2 is committed to placing an administrative limit on reactor coolant system (RCS) activity at 20% of the current limits specified in Technical Specification 3.4.8 . Ensuring that RCS activity remains significantly below the Technical Specification limit will greatly reduce the consequences of primary-to-secondary tube leakage by minimizing any off-site releases that could occur should a leak develop.
- ANO-2 is committed to maintaining the reliability of the N-16 steam line monitors. The N-16 monitors provide early detection capability for primary-to-secondary leakage. The operators are provided with updated information on primary-to-secondary leakrate (in gallons per day), and rate of change of leakrate (in gallons per minute). The N-16 monitors are displayed continuously in the control room. During the time that an N-16 monitor may be inoperable, other leakage detection monitors, such as main steam line radiation monitors, steam generator blowdown liquid radiation monitors, and condenser off-gas radiation monitors, should be available for leakage detection. If any of these monitors fails, or becomes inoperable, a high priority will be placed on repairing and returning the monitor to service. Grab samples are also taken as appropriate from the steam generators and condenser off-gas. The available indications for primary-to-secondary leakage are sensitive to low levels of leakage and are diverse to ensure prompt identification and quantification.
- ANO-2 will change the Abnormal Operating Procedure (AOP) 2203.038, "Primary-To-Secondary Leakage," to reflect a reduced amount of primary-to-secondary leakage that is acceptable for continued plant operation. The AOP will require the unit to be shut down in the event of a sustained leakrate of > 25 gallons per day, or a confirmed rate of change in excess of 0.021 gallon per minute. The AOP will also provide the operators with guidance on the time require to shutdown based on leakrate and rate of change of leakrate. If a confirmed leakrate of > 25 gallons per day is observed, direction is given to shutdown to Mode 3 in less than 6 hours. If the rate of change of a primary-to-secondary leak exceeds 0.021 gallons per minute averaged per hour, the unit will be at 50% power in less than 1 hour and in Mode 3 in the next 2 hours. This approach ensures the timely response to steam generator tube leakage to minimize the possibility of conditions degrading further.
- ANO-2 has continued to place an emphasis on training the operators to detect, respond to, and mitigate steam generator tube leakage events. Simulator and classroom training continues to challenge the operators to promptly respond to primary-to-secondary leakage events as well as steam generator tube rupture events. Operator requalification training is scheduled every 5 weeks, with steam generator tube leakage scenarios being one of the more frequently trained on scenarios in the simulator. Operator training places emphasis on identifying early signs of steam generator tube leakage, providing an aggressive approach to mitigate the event, and maintaining a high level of sensitivity toward the potential for rapid progression of leakage. The current training cycle, which began on June 12, 2000, concentrates heavily on steam generator tube leakage events (including tube rupture). In addition to classroom and simulator training, each crew will conduct on shift training covering the changes to the primary-to-secondary leakage AOP, reasons for

the changes, and management expectations concerning continued monitoring for primary-to-secondary leakage. Night orders will be issued to reinforce the new leakage limits and current management expectations.

- ANO-2 has installed a modification which will quickly facilitate the jumpering of electrical power between the redundant DC busses which power the two DC powered ECCS vent valves. The purpose of this jumper is to ensure that in the event of a loss of one train of DC power, the ability to depressurize the RCS will be available. The depressurization of the RCS under severe accident conditions will significantly reduce the potential for offsite radiological releases. A dedicated operator will respond upon a reactor trip, and when directed from the control room, will locally install the DC jumper providing power to the de-energized valve from the operable DC bus. This modification will help to ensure steam generator tube integrity under even the most adverse conditions.

Additionally, ANO-2 is committed to lowering the T_{hot} limit for the reactor coolant to an average 600°F. This temperature may be varied as necessary for short periods of time to control the axial shaping index (ASI). The T_{hot} reduction will remain in effect until approval of the risk-informed license change.

All of the above enhancements, if not already implemented, will be in place by June 26, 2000.

Entergy Operations believes the above enhancements further support the continued safe operation of ANO-2. Should you have questions concerning these commitments, please contact me.

Very truly yours,



CGA/jjd

cc: Mr. Ellis W. Merschhoff
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
P.O. Box 310
London, AR 72847

Mr. Thomas W. Alexion
NRR Project Manager Region IV/ANO-2
U. S. Nuclear Regulatory Commission
NRR Mail Stop 04-D-03
One White Flint North
11555 Rockville Pike
Rockville, MD 20852