



ENTERGY

Entergy Operations, Inc.

1448 S.R. 333

Russellville, AR 72801

Tel 501 858-5000

February 21, 1995

2CAN029504

U. S. Nuclear Regulatory Commission
Document Control Desk
Mail Station P1-137
Washington, DC 20555

Subject: Arkansas Nuclear One - Unit 2
Docket No. 50-368
License No. NPF-6
Steam Generator Overfill Protection Concerns of
Generic Letter 89-19 (TAC No. M79407)

Gentlemen:

By letter dated September 13, 1994, the Staff transmitted the final safety evaluation of the Combustion Engineering Owners Group (CEOG) response to Generic Letter 89-19, dated October 31, 1990. In accordance with the Staff's safety evaluation, Entergy Operations has reviewed the CEOG report and performed an evaluation which confirms the applicability of the CEOG analyses to Arkansas Nuclear One, Unit 2 (ANO-2). Entergy Operations has also implemented the appropriate operator training and procedures to address steam generator overfill events. Therefore, this completes the actions necessary for closure of this issue for ANO-2.

The requirement for reassessment of emergency procedures and operator training to assure safe shutdown of certain CE plants under a wide spectrum of small-break-loss-of-coolant-accident scenarios does not apply to ANO-2 because of exclusion from the list of affected plants specified in section 4(c) of enclosure 2 to Generic Letter 89-19. The affected plants are those with high pressure injection pump discharge pressures of less than or equal to 1275 psig.

During the ANO-2 evaluation, Entergy Operations noted two inaccuracies in the final safety evaluation of the CEOG response to Generic Letter 89-19. The final safety evaluation states that NUREG/CR-3958 assumes that a main steam line break (MSLB) occurs upstream of the main steam isolation valve (MSIV) with a probability of 0.5. The final safety evaluation also states that CEOG estimates that the probability should more appropriately be the ratio of the main steam line piping length outside containment up to the MSIV, to the total main steam line piping up to the MSIV. If the MSLB occurs inside

9502270247 950221
PDR ADOCK 05000368
P PDR

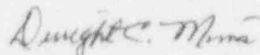
ADD 1/0

containment in conjunction with a steam generator tube rupture (SGTR), water lost through the break would be collected in the containment sump and be available for recirculation, and thus, core melt would not occur without additional failures. The CEOG submittal actually states that rather than assume a 0.5 probability for core melt for an MSLB upstream of the MSIV, the maximum probability cannot exceed the product of 0.5 times the ratio of the main steam line piping length outside containment up to the MSIV, to the total main steam line piping length up to the MSIV. Therefore, the probability that an MSLB occurs between containment and the MSIV is the product of 0.5 and the ratio of the main steam line piping length outside containment up to the MSIV, to the main steam line piping length up to the MSIV.

The conclusion section of the final safety evaluation states that based on the final NUREG-0844, the probability of an SGTR involving 10 or more tubes, given a MSLB, is less than 0.034 (total probability of an SGTR in the original analysis not the final NUREG-0844). The total probability of a tube rupture due to an MSLB was revised to 0.0505 in the final NUREG-0844 report, dated September 1988. Although the overall SGTR probability was increased, the probability of rupturing greater than 10 tubes was decreased by nearly an order of magnitude to 0.0005 in the final NUREG-0844 from 0.003 in the original analysis. Therefore, the conclusion should state that based on the final NUREG-0844, the probability of an SGTR involving 10 or more tubes, given a MSLB, is less than 0.003.

Should you have any further questions, please contact me.

Very truly yours,



Dwight C. Mims
Director, Licensing

DCM/nbm

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
1448 S. R. 333
Russellville, AR 72801

Mr. George Kalman
NRR Project Manager Region IV/ANO-1 & 2
U. S. Nuclear Regulatory Commission
NRR Mail Stop 13-H-3
One White Flint North
11555 Rockville Pike
Rockville, MD 20852