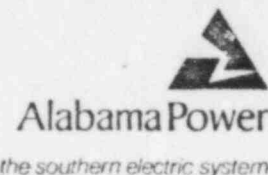


Alabama Power Company
600 North 18th Street
Post Office Box 2641
Birmingham, Alabama 35291
Telephone 205 323-5341

F. L. CLAYTON, JR.
Senior Vice President



August 30, 1979

Mr. A. Schwencer, Director
Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Schwencer:

RE: Changes to Operating License
No. NPF-2 Technical Specifications

Alabama Power Company proposed the attached change to Joseph M. Farley Nuclear Plant Operating License No. NPF-2 Technical Specification involving the following item:

Technical Specification Tables 2.2-1 and 3.3-4
concerning the increase of the steam generator
low-low level setpoint for initiation of reactor
trip and auxiliary feedwater.

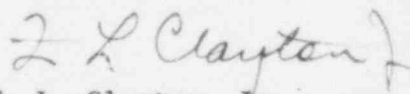
The Plant Operation Review Committee and the Nuclear Operation Review Board has reviewed the above proposed change and have determined that the change does not involve an unreviewed safety question as shown in the attached safety evaluation.

The class of this proposed amendment is designated according to 10 CFR170 requirements. This change is deemed not to involve a significant hazard consideration, which is considered as a Class III change according to 10CFR Part 170. A check for \$4,000 is enclosed to cover the fees required.

In accordance with 10CFR50.30(c)(1)(i), three (3) signed originals and thirty-seven (37) additional copies of this proposed amendment are enclosed.

If you have any questions, please advise.

Yours very truly,

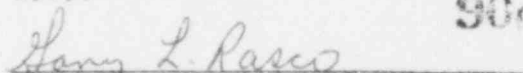

F. L. Clayton, Jr.

FLCJr/HRF:bhj

Enclosures

cc: Mr. R. A. Thomas
Mr. G. F. Trowbridge

SWORN TO AND SUBSCRIBED BEFORE
ME THIS 30th DAY OF August,
1979.


Notary Public

My Commission Expires: 2-15-82

909042

7909040527

ATTACHMENT

Safety Evaluation for Technical Specification Changes Associated with Steam Generator Low-Low Water Level Setpoint

Background:

Westinghouse recently notified Alabama Power Company that high energy line breaks inside containment can result in heatup of the steam generator level measurement reference leg. Increased reference leg water column temperature will result in a decrease of the water column density with a consequent apparent increase in indicated steam generator water level (i.e., apparent level exceeding actual level). This potential level bias could result in delayed protection signals (reactor trip and auxiliary feedwater initiation) which are initiated on low-low steam generator water level. In the case of a feedline break inside containment, this adverse environment could be present and could delay the primary signal arising from declining steam generator water level (low-low steam generator water level). Backup signals which would be available include the following: over-temperature delta T, high pressurizer pressure, containment pressure and safety injection. For other high energy line breaks inside containment which could introduce a similar positive bias to the steam generator water level measurement, steam generator level does not provide the primary trip function and the potential bias would not interfere with needed protection system actuation.

In order to compensate for the reference leg heatup effects described above it is proposed to raise the steam generator low-low water level setpoint by 2 percent from 15 percent to 17 percent. The revised value of 17 percent includes an allowance of 5 percent for normal channel accuracy, 10 percent for post-accident environmental effects on the differential pressure transmitter, and 2 percent for reference leg heatup compensation.

References:

- (1) Technical Specification Tables 2.2-1 and Table 3.3-4.
- (2) FSAR Sections 6.2.1.3.11 and 15.4.2.2.

Bases:

The steam generator reference leg heatup effects in the event of a feedline break inside containment have been compensated for through insulation of the reference legs and raising the steam generator low-low level setpoint by two percent. The material employed to insulate the reference legs is qualified for use in a post-accident containment environment and is protected from high energy line break jet impingement forces by physical location. The resultant increase in the steam generator low-low level setpoint was determined by performing a heat transfer analysis to calculate the maximum reference leg heatup with insulation installed for the worst case containment transient following a secondary high energy line rupture. The containment transients used in this evaluation were based on the spectrum of steam line breaks presented in Chapter 6.0 of the FSAR which envelop

the containment temperature and pressure response in the event of a feedline break inside containment. Thus the revised steam generator low-low water level setpoint will provide reactor trip and auxiliary feedwater initiation following a feedline rupture and will ensure that the feedline break criteria stated in the FSAR will continue to be met.

Conclusion:

The proposed increase in steam generator water level low-low setpoint does not involve an unreviewed safety question as defined by 10CFR50.59.

TABLE 2.2-1 (Continued)

REACTOR TRIP SYSTEM INSTRUMENTATION TRIP SETPOINTS

FUNCTIONAL UNIT	TRIP SETPOINT	ALLOWABLE VALUES
13. Steam Generator Water Level--Low-Low	\geq 15% ^{17%} of narrow range instrument span--each steam generator	\geq 14% ^{16%} of narrow range instrument span--each steam generator
14. Steam/Feedwater Flow Mismatch and Low Steam Generator Water Level	$<$ 40% of full steam flow at RATED THERMAL POWER coincident with steam generator water level \geq 25% of narrow range instrument span--each steam generator	$<$ 42.5% of full steam flow at RATED THERMAL POWER coincident with steam generator water level \geq 24% of narrow range instrument span--each steam generator
15. Undervoltage-Reactor Coolant Pumps	\geq 2680 volts--each bus	\geq 2640 volts--each bus
16. Underfrequency-Reactor Coolant Pumps	\geq 57.0 Hz - each bus	\geq 56.9 Hz - each bus
17. Turbine Trip A. Low Auto Stop Oil Pressure	\geq 45 psig	\geq 43 psig
B. Turbine Throttle Valve Closure	\geq 1% open	\geq 0.75% open
18. Safety Injection Input from ESF	Not Applicable	Not Applicable
19. Reactor Coolant Pump Breaker Position Trip	Not Applicable	Not Applicable

TABLE 3.3-4 (Continued)

ENGINEERED SAFETY FEATURE ACTUATION SYSTEM INSTRUMENTATION TRIP SETPOINTS

<u>FUNCTIONAL UNIT</u>	<u>TRIP SETPOINT</u>	<u>ALLOWABLE VALUES</u>
6. Auxiliary Feedwater		
a. Steam Generator Water Level-Low-Low	17% > 15% of narrow range Instrument span-each steam generator	16% > 14% of narrow range instru- ment span-each steam generator
b. Undervoltage - RCP	≥ 2680 RCP bus voltage	≥ 2640 RCP bus voltage
c. S.I.	see 1 above (all SI Setpoints)	