UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 80 TO FACILITY OPERATING LICENSE NO. NPF-2

AND AMENDMENT NO. 72 TO FACILITY OPERATING LICENSE NO. NPF-8

ALABAMA POWER COMPANY

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-348 AND 50-364

1.0 INTRODUCTION

By letter dated December 10, 1982, the NRC issued Generic Letter 82-28, "Inadequate Core Cooling Instrumentation System." Licensees were told to install an inadequate core cooling instrumentation system in accordance with Item II.F.2 of NUREG-0737. Alabama Power Company, the licensee, installed a reactor vessel level indicating system (RVLIS) and, in a letter dated September 20, 1988 committed to submit Technical Specifications (TS) changes reflecting the addition of a RVLIS.

By letter dated December 14, 1988, as supplemented April 6, 1989, the licensee requested changes to the TS for the Joseph M. Farley Nuclear Plant, Units 1 and 2 (Farley). The proposed amendments would incorporate the plant-specific TS for the RVLIS. The RVLIS has been installed and tested at Farley for two operating cycles, and is the last portion of the Inadequate Core Cooling System (ICCS) requiring TS. The NRC staff has previously reviewed and approved the ICCS and related TS for Farley. The details and basis for the approval are documented in the staff's Safety Evaluation (SE) dated January 30, 1989. The TS changes are proposed as the final step toward compliance with the NUREG-0737, Item II.F.2, and our SE noted above.

The April 6, 1989 submittal contained a change from the previous submittal in the proposed wording of an Action Statement. No new information was included. The change was requested by our staff to clarify the licensee's intent. Therefore, there was no change in the Commission's proposed determination of no significant hazards consideration (54 FR 1019), and this amendment request was not renoticed.

2.0 DISCUSSION

The criterion for determining if a RVLIS channel is operable is based on the quality of information needed by an operator to determine if a coolant void is forming in the top of the reactor vessel (RV) and the extent of the void.

Each channel of RV level measurement consists of eight heated junction thermocouples. Two are located in the reactor head and six are in the upper plenum region. In evaluations on other plants with RVLIS systems of this type, we have determined that with only half of these sensors functioning the operators can still determine if a void has formed, is growing, or operator corrective action is succeeding in reducing the void. The TSs, therefore, should require that, as a minimum, four out of eight sensors must be functioning to declare a channel operational. A minimum of one channel must be operational prior to startup after a refueling outage. These minimum requirements are considered adequate to track the course of a postulated loss-of-coolant accident (LOCA).

3.0 EVALUATION

The RVLIS is neither credited nor required for mitigation of the evaluated LOCA for the Farley Plant. The system is not relied upon for reactor trip or initiation of any plant safety systems. It is intended solely to enhance the operator's ability to understand and manage transients and events by providing additional corroborative information. In the unlikely event that both RVLIS channels became inoperable, and repairs are not feasible without shutting down, the facility may continue to operate, provided an alternate method of monitoring the RV inventory is initiated and a special report is provided to the Commission in accordance with TS requirements.

We conclude that the proposed TS 3/4.3.3.8, and related Tables, Action Statements, and Bases provide reasonable assurance that the RVLIS information will be available to the operator when needed to enhance the operator's ability to understand and manage transients and events. These TS fulfill the requirements of NUREG-0737, Item II.F.2, and are acceptable. In addition, the removal of a one-time change approved in Amendment No. 34 is considered editorial, applicable to a previous cycle, with no impact on safe operation and is, therefore, acceptable as well.

4.0 ENVIRONMENTAL CONSIDERATION

These amendments change a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and change the surveillance requirements. The staff has determined that these amendments involve no significant increase in the amounts, and not significant change in the types, of any effluents that may be released off site; and that there is no significant increase in individual or cummulative occupational radiation exposure. The Commission has previously issued a proposed finding that these amendments involve no significant hazards consideration, and there has neen no public comment on such finding. Accordingly, these amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of these amendments.

5.0 CONCLUSION

The Commission made a proposed determination that this amendment involves no significant hazards consideration which was published in the Federal Register (54 FR 1019) on January 11, 1989, and consulted with the State of Alabama. No public comments or requests for hearing were received, and the State of Alabama did not have any comments.

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: May 4, 1989