



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 135 TO FACILITY OPERATING LICENSE NO. NPF-2
AND AMENDMENT NO. 127 TO FACILITY OPERATING LICENSE NO. NPF-8

SOUTHERN NUCLEAR OPERATING COMPANY, INC., ET AL.

JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-348 AND 50-364

1.0 INTRODUCTION

By letter dated October 16, 1997, the Southern Nuclear Operating Company, Inc. (SNC or licensee) et al., submitted a request for changes to the Joseph M. Farley Nuclear Plant, Units 1 and 2, Technical Specifications (TS). The requested changes would increase the number of allowable operable charging pumps when the reactor coolant system (RCS) is less than 180 °F. It would also modify Farley TS 3.1.2.3 to allow a maximum of two charging pumps to be capable of injecting into the RCS during charging pump swap operations for a maximum of 15 minutes and add an action statement to address having more than one charging pump capable of injection into the RCS.

2.0 BACKGROUND

SNC proposed to change the TS for both Farley Units 1 and 2. The changes to the TS for both units are identical. The licensee proposed to change Section 3.1.2.3 that applies to charging pumps while in Modes 5 and 6. The current limiting condition for operation states:

- a. With no charging pump OPERABLE, suspend all operations involving CORE ALTERATIONS or positive reactivity changes.

The requested change retains this condition as paragraph "a." and adds:

- b. With more than one charging pump capable of injecting into the RCS, except as allowed during pump swap operations, immediately take action to render all but the above required OPERABLE pump inoperable as specified in 4.1.2.3.2.

A note that applies to the mode of applicability for the above limiting condition for operation is also supplemented. The current text states:

A maximum of one charging pump shall be OPERABLE whenever the temperature of one or more of the RCS cold legs is less than or equal to 180°F,

The requested change adds the following phrase:

...; however, two charging pumps may be capable of injecting into the RCS during pump swap operations for a period of no more than 15 minutes provided that the RCS is in a non water solid condition and both RHR [residual heat removal] relief valves are OPERABLE or the RCS is vented via an opening of no less than 5.7 square inches in area.

The TS Bases Section 3/4.1.2 for each Farley unit is also supplemented to address the requested changes to TS 3.1.2.3.

3.0 EVALUATION

In order to maintain a steady supply of filtered seal water to the Reactor Coolant Pump (RCP) number one seal while swapping the charging pump, it is necessary to have two charging pumps running momentarily. The proposed changes to TS 3.1.2.3 will allow two charging pumps to be capable of injecting into the reactor coolant system for a period not to exceed 15 minutes while RCS cold leg temperature is at or below 180°F. This will allow the operator to start a second pump long enough to ensure that it operates properly and then to secure the pump that was running originally. This order of pump operation will allow seal injection flow to be maintained to the RCS pumps number one seal continuously, thus preventing loss of pressure to the seals and maintaining filtered water flow through the seals. In order to prevent an RCS mass addition transient during the pump swap operation, the RCS should be in a nonwater solid condition and the residual heat removal relief valves must be operable or the RCS must be vented. These proposed changes include sufficient controls to prevent an RCS overpressurization event.

4.0 STATE CONSULTATION

In accordance with the Commission's regulations, the State of Alabama official was notified of the proposed issuance of the amendments. The State official had no comments.

5.0 ENVIRONMENTAL CONSIDERATION

The 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. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such

finding (62 FR 63983 dated December 3, 1997). Accordingly, the 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 the amendments.

6. CONCLUSION

The Commission has concluded that the proposed TS changes provide an operational flexibility during the pump swap operation while providing sufficient controls to prevent a RCS overpressurization event, and that (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendments will not be inimical to the common defense and security or to the health and safety of the public.

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Date: January 5, 1998