

January 6, 1999

Mr. D. N. Morey  
Vice President - Farley Project  
Southern Nuclear Operating  
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SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2 - SUPPLEMENT TO  
SAFETY EVALUATION ASSOCIATED WITH AMENDMENT NOS. 140 AND 132  
(TAC NOS. MA0381 AND MA0382)

Dear Mr. Morey:

On December 8, 1998, the U.S. Nuclear Regulatory Commission (NRC) issued Amendment No. 140 to Facility Operating License No. NPF-2 and Amendment No. 132 to Facility Operating License No. NPF-8 for the Joseph M. Farley Nuclear Plant (FNP), Units 1 and 2, and issued the related Safety Evaluation (SE), dated December 8, 1998. The amendments change the Technical Specifications (TSs) to revise the intermediate range neutron flux reactor trip setpoint and allowable value, and delete the reference to the reactor trip setpoints in TS 3.10.3, "Special Test Exceptions - Physics Tests" and TS 3.10.4, "Special Test Exceptions - Reactor Coolant Loops."

In a telephone call on December 15, 1998, Southern Nuclear Operating Company, Inc. (SNC) informed the NRC staff that corrections to the December 8, 1998, SE were necessary.

As a result, the NRC's December 8, 1998, SE is being supplemented to incorporate the corrections. These changes to the SE do not change the conclusions reached in the original SE. Enclosed is the page of the SE affected by these changes. Please replace the page of the December 8, 1998, SE with the enclosed revised page. The revised page contains vertical lines indicating the areas of change. The TS page is correct as issued.

If you have any questions regarding this SE supplement, please call me at (301) 415-2426.

Sincerely,

ORIGINAL SIGNED BY:

Jacob I. Zimmerman, Project Manager  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket Nos. 50-348 and 50-364

Enclosure: As stated

cc: w/encl: See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Sincerely,

A handwritten signature in black ink, appearing to read "Jacob I. Zimmerman".

Jacob I. Zimmerman, Project Manager  
Project Directorate II-2  
Division of Reactor Projects - I/II  
Office of Nuclear Reactor Regulation

Docket Nos. 50-348 and 50-364

Enclosure: As stated

cc: w/encl: See next page

Joseph M. Farley Nuclear Plant

cc:

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power level (P-10), the IRRT will be automatically reinstated. The percent is based on one-out-of-two trip logic and when either channel NI-35 or NI-36 reaches a trip setpoint the reactor will trip even if the actual reactor power has not reached the trip level. To alleviate this problem, SNC proposed to increase the percent setpoint from 25 percent to 35 percent, and the allowable value from 30 percent to 40 percent. SNC performed a test on Unit 1 to measure the effect of changes on IR detector currents during control rod movement.

From that test, the rod shadowing effect was properly recorded and analyzed to determine the new value of the process measurement uncertainty. SNC evaluated the total channel errors for the percent by including a statistical combination of the process measurement accuracy uncertainties based on FNP's test data and the test results support this TS change.

The staff has reviewed the IR channel uncertainty data and finds that FNP's results are similar to those seen at other plants. As discussed earlier, the IRRT is not explicitly credited in any safety analysis. With the nominal trip setpoint at 35 percent RTP, and the new channel statistical allowance provided in the submittal, the trip is assured of actuating before reaching 60 percent RTP. This RTP level is still below the power range high setting trip at 109 percent RTP, which is always active. The staff finds that the proposed TS change to the IRRT setpoint and allowable value does not involve a significant reduction in safety margin and will reduce the potential for inadvertent trip and is, therefore, acceptable.

#### 2.2 Delete the reference to the RT setpoints in TS 3.10.3, "Special Test Exceptions - Physics Tests" and TS 3.10.4, "Special Test Exceptions - Reactor Coolant Loops"

SNC stated that the proposed change to delete the above RT setpoints is a redundant reference that merely restates the analyzed setpoints contained in TS 2.2.1. In addition, deletion of these references is consistent with the Westinghouse Standard TS (STS) NUREG-1431, Revision 1, format. The staff has reviewed these deletions and finds the changes acceptable.

### 3.0 STAFF CONCLUSION

The staff has reviewed SNC's evaluation and justification for trip setpoint and allowable value changes in TS Table 2.2-1, Item 5, Intermediate Range, Neutron Flux, and changes in TS 3.10.3, "Special Test Exception - Physics Test," and TS 3.10.4, "Special Test Exception - Reactor Coolant Loops." Based on this review, the staff concludes that the proposed TS changes do not result in a significant reduction in safety margin, and are consistent with staff guidance in the Westinghouse STS, NUREG-1431. The staff concludes, therefore, that the proposed TS changes are acceptable.

### 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.