

July 19, 1996

Mr. D. N. Morey
Vice President - Farley Project
Southern Nuclear Operating
Company, Inc.
Post Office Box 1295
Birmingham, Alabama 35201-1295

SUBJECT: ISSUANCE OF AMENDMENTS - JOSEPH M. FARLEY NUCLEAR PLANT,
UNITS 1 AND 2 (TAC NOS. M95763 and M95764)

Dear Mr. Morey:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 120 to Facility Operating License No. NPF-2 and Amendment No. 112 to Facility Operating License No. NPF-8 for the Joseph M. Farley (Farley) Nuclear Plant, Units 1 and 2. The amendments change the Technical Specifications (TS) in response to your submittal dated June 24, 1996.

The amendments approve a unit cycle specific (Unit 1, Cycle 14 and Unit 2, Cycle 11) TS change to Note 4 of Table 4.3-1 that permits continued operation of both Farley units without performing the required surveillance of the manual safety injection input to the reactor trip circuitry for the current operating cycle until the next unit shutdown, following which, this testing has to be performed prior to entering Mode 2. The amendments supersede a Notice of Enforcement Discretion that was granted by the staff on June 24, 1996.

A copy of the related Safety Evaluation is also enclosed. A Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,

original signed by

Byron L. Siegel, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-348
and 50-364

Enclosures:

1. Amendment No. 120 to NPF-2
2. Amendment No. 112 to NPF-8
3. Safety Evaluation

DISTRIBUTION

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cc w/encls: See next page

DOCUMENT NAME: G:\FARLEY\95763FAR.AMD

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NAME	L. BERRY <i>ETD</i>	BSIEGEL:cn	JWERMIEL	RBACHMANN	H. BERKOW
DATE	7/10/96	7/15/96	07/03/96	07/03/96	7/16/96
COPY	(YES) NO	(YES) NO	YES NO	YES NO	YES NO

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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3. Safety Evaluation

cc w/encls: See next page

Mr. D. N. Morey
Southern Nuclear Operating
Company, Inc.

Joseph M. Farley Nuclear Plant

cc:

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

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

ALABAMA POWER COMPANY

DOCKET NO. 50-348

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 120
License No. NPF-2

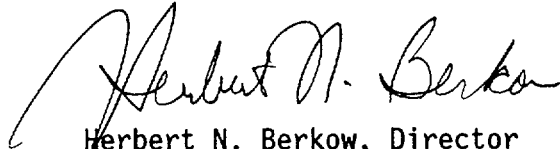
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Southern Nuclear Operating Company, Inc. (Southern Nuclear), dated June 24, 1996, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications, as indicated in the attachment to this license amendment; and paragraph 2.C.(2) of Facility Operating License No. NPF-2 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 120 , are hereby incorporated in the license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 19, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 120

TO FACILITY OPERATING LICENSE NO. NPF-2

DOCKET NO. 50-348

Replace the following page of the Appendix A Technical Specifications with the enclosed page. The revised areas are indicated by marginal lines.

Remove Page

3/4 3-14

Insert Page

3/4 3-14

TABLE 4.3-1 (Continued)

TABLE NOTATION

- * - With the reactor trip system breakers closed and the control rod drive system capable of rod withdrawal.
- (1) - If not performed in previous 7 days.
- (2) - Heat balance only, above 15% of RATED THERMAL POWER. Adjust channel if absolute difference is greater than 2 percent.
- (3) - Compare incore to excore axial flux difference every 31 EFPD. Recalibrate if the absolute difference is greater than or equal to 3 percent.
- (4) - Manual ESF functional input check every 18 months. For the fourteenth operating cycle only, this test is not required until the next Mode 2 entry from Mode 3.
- (5) - Each train or logic channel shall be tested at least every 62 days on a STAGGERED TEST BASIS.
- (6) - Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (7) - Below the P-6 (Block of Source Range Reactor Trip) setpoint.
- (8) - Logic only, if not performed in previous 92 days.
- (9) - CHANNEL FUNCTIONAL TEST will consist of verifying that each channel indicates a turbine trip prior to latching the turbine and indicates no turbine trip prior to P-9.
- (10) - If not performed in the previous 31 days.
- (11) - Independently verify OPERABILITY of the undervoltage and shunt trip circuitry for the Manual Reactor Trip Function.
- (12) - Verify reactor trip breaker and reactor trip bypass breaker open upon actuation of each Main Control Board handswitch.
- (13) - Local manual shunt trip prior to placing breaker in service. Local manual undervoltage trip prior to placing breaker in service.
- (14) - Undervoltage trip via Reactor Protection System.
- (15) - Local manual shunt trip.



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

SOUTHERN NUCLEAR OPERATING COMPANY, INC.

ALABAMA POWER COMPANY

DOCKET NO. 50-364

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 112
License No. NPF-8

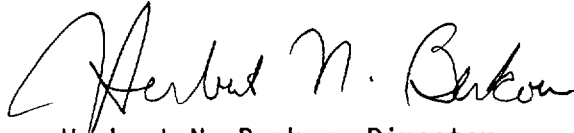
1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Southern Nuclear Operating Company, Inc. (Southern Nuclear), dated June 24, 1996, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
 - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
 - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
 - D. The issuance of this license amendment will not be inimical to the common defense and security or to the health and safety of the public; and
 - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by changes to the Technical Specifications, as indicated in the attachment to this license amendment; and paragraph 2.C.(2) of Facility Operating License No. NPF-8 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 112, are hereby incorporated in the license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Herbert N. Berkow, Director
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: July 19, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 112

TO FACILITY OPERATING LICENSE NO. NPF-8

DOCKET NO. 50-364

Replace the following page of the Appendix A Technical Specifications with the enclosed page. The revised areas are indicated by marginal lines.

Remove Page

Insert Page

3/4 3-14

3/4 3-14

TABLE 4.3-1 (Continued)

TABLE NOTATION

- * - With the reactor trip system breakers closed and the control rod drive system capable of rod withdrawal.
- (1) - If not performed in previous 7 days.
- (2) - Heat balance only, above 15% of RATED THERMAL POWER. Adjust channel if absolute difference is greater than 2 percent.
- (3) - Compare incore to excore axial flux difference every 31 EFPD. Recalibrate if the absolute difference is greater than or equal to 3 percent.
- (4) - Manual ESF functional input check every 18 months. For the eleventh operating cycle only, this test is not required until the next Mode 2 entry from Mode 3.
- (5) - Each train or logic channel shall be tested at least every 62 days on a STAGGERED TEST BASIS.
- (6) - Neutron detectors may be excluded from CHANNEL CALIBRATION.
- (7) - Below the P-6 (Block of Source Range Reactor Trip) setpoint.
- (8) - Logic only, if not performed in previous 92 days.
- (9) - CHANNEL FUNCTIONAL TEST will consist of verifying that each channel indicates a turbine trip prior to latching the turbine and indicates no turbine trip prior to P-9.
- (10) - If not performed in the previous 31 days.
- (11) - Independently verify OPERABILITY of the undervoltage and shunt trip circuitry for the Manual Reactor Trip Function.
- (12) - Verify reactor trip breaker and reactor trip bypass breaker open upon actuation of each Main Control Board handswitch.
- (13) - Local manual shunt trip prior to placing breaker in service. Local manual undervoltage trip prior to placing breaker in service.
- (14) - Undervoltage trip via Reactor Protection System.
- (15) - Local manual shunt trip.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 120 TO FACILITY OPERATING LICENSE NO. NPF-2
AND AMENDMENT NO. 112 TO FACILITY OPERATING LICENSE NO. NPF-8

SOUTHERN NUCLEAR OPERATING COMPANY, INC.
JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2

DOCKET NOS. 50-348 AND 50-364

1.0 INTRODUCTION

By letter dated June 24, 1996, the Southern Nuclear Operating Company, Inc., et al. (the licensee), submitted a request for changes to the Joseph M. Farley (Farley) Nuclear Plant, Units 1 and 2, Technical Specifications (TS). The requested changes would permit continued operation of both units, without performing the required surveillance of the manual safety injection (SI) input to the reactor trip circuitry, for the current operating cycle until the next unit shutdown, following which, this testing would to be performed prior to entering Mode 2 from Mode 3.

2.0 BACKGROUND

Generic Letter (GL) 96-01, "Testing of Safety-Related Logic Circuits," requested all licensees of nuclear power reactors to:

- (1) Compare electrical schematic drawings and logic diagrams for the reactor protection system, emergency diesel generator load shedding and sequencing, and actuation logic for the engineered safety features systems against plant surveillance test procedures to ensure that all portions of the logic circuitry, including the parallel logic, interlocks, bypasses and inhibit circuits, are adequately covered in the surveillance procedures to fulfill the TS requirements. This review should also include relay contacts, control switches, and other relevant electrical components within these systems, utilized in the logic circuits performing a safety function.
- (2) Modify the surveillance procedures as necessary for complete testing to comply with the technical specifications. Additionally, the licensee could request an amendment to the TS if relief from certain testing requirements can be justified.

During the course of this review of GL 96-01, Farley determined that the existing surveillance procedures do not include testing of the manual initiation of reactor trip by the Safety Injection (SI) handswitch. Table 4.3-1, "Reactor Trip System Instrumentation Surveillance Requirements," Functional Unit 18 addresses the SI input from Engineered Safety Features (ESF) and states that a Channel Functional Test of this SI switch is required once per 18 months. In addition, Table Notation 4 to Functional Unit 18 states that a manual ESF functional input check be performed every 18 months. This switch, when operated, initiates an SI signal that also provides an input to the reactor trip breaker shunt trip coils to open the circuit breakers. Contrary to this requirement the licensee concluded that the manual SI ESF input to the reactor trip system had not been tested within the past 18 months and that both Farley units were in violation of this TS surveillance requirement.

By a telephone conversation on June 20, 1996, at 9:00 p.m. EDT the licensee requested and was granted Enforcement Discretion by the staff to avoid shutdown of both units. This was followed by a letter dated June 21, 1996, that requested the NRC exercise discretion not to enforce compliance with the actions required by the TS.

By letter dated June 24, 1996, the staff officially notified the licensee that it was exercising discretion not to enforce compliance with the limiting condition for operation associated with the TS Table 4.3-1, Functional Unit 18, Note 4, surveillance requirement related to a functional test of the manual SI ESF input to the reactor trip system.

3.0 EVALUATION

The Farley review determined that the existing surveillance procedures do not include testing of the manual initiation of reactor trip by the SI handswitch. This switch, when operated, initiates an SI signal and also provides an input to the reactor trip breaker shunt coils to open the circuit breakers. The manual SI reactor trip is a back-up to the automatic reactor trip. The plant test procedures do not test both circuits. The SI handswitch contact in the reactor trip circuit apparently was never tested except during pre-operational testing. The design feature of the manually initiated SI reactor trip is to ensure reactor trip in case the reactor trip system (RTS) instrumentation does not automatically trip the reactor or a manual trip is not otherwise accomplished. Any hypothetical failure of the handswitch contacts to manually trip the reactor is compensated for by the redundant trip features associated with the reactor trip system. Examples are the reactor manual trip handswitch, reactor trip setpoints set to actuate prior to reaching the SI setpoints, and the redundant train manual SI handswitch.

The Farley Final Safety Analysis Report (FSAR) states that no credit is given for the manual SI input to the reactor trip circuit in any accident or transient analyses. Farley is designed such that one contact of the SI handswitch initiates a turbine trip above 35% power and the turbine trip, in

turn, provides a trip signal to the RTS. This feature is currently tested by a surveillance procedure. The plant emergency operating procedures require the operator to verify reactor trip anytime an SI is automatically actuated and prior to manual SI actuation. Since the manual SI initiation of reactor trip is neither credited in the safety analysis nor is it a primary signal for a reactor trip, testing of this feature is not recommended during power operation because of transients that may adversely affect plant safety.

As a compensatory measure, until the required testing is performed, the licensee committed to review procedural guidance for manual initiation of reactor trips with on-shift licensed crews, including discussions related to the failure to have adequately tested the SI initiation manual handswitch and to ensure that, prior to any manual initiation of SI, the reactor is tripped in accordance with established operating procedures.

Based on the above, the staff concludes that there is sufficient assurance that an inoperable manual SI reactor trip feature will not adversely affect plant safety. Therefore, the staff finds the licensee's proposed TS amendment, to delete the surveillance requirement for the manual SI input to the reactor trip circuitry for the current operating cycle for each unit until the next unit shutdown, following which, this testing will be performed prior to Mode 2 entry, is acceptable.

4.0 EXIGENT CIRCUMSTANCES

The Commission's regulations, 10 CFR 50.91(a)(6), contain provisions for issuance of amendments when the usual 30-day public notice period cannot be met. One type of special exception is an exigency. Under such circumstances, the Commission notifies the public in one of two ways: by issuing a Federal Register notice providing an opportunity for hearing and allowing at least 2 weeks for prior public comments, or by issuing a press release discussing the proposed changes, using local media. In this case, the Commission used the first approach.

The licensee, on June 20, 1996, determined that, contrary to the requirement of TS Table 4.3-1, Functional Unit 18, Note 4, the manual SI ESF input to the reactor trip system had not been tested within the past 18 months for both Farley units. Noncompliance with this TS required the licensee to declare the manual SI trip inoperable and to take action within one hour to be in hot standby within the next 6 hours in accordance with TS 3.0.3. The licensee promptly notified the NRC and requested that the NRC exercise enforcement discretion. The licensee proposed a revision to the TS, as stated in its June 21, 1996, request for enforcement discretion, which, if granted, would bring the plants into compliance with its TS for the remainder of the operating cycle for each unit until the next unit shutdown. Based on the information provided by the licensee, the staff concluded that continued operation was acceptable and granted a Notice of Enforcement Discretion (NOED) to avoid an undesirable transient as a result of forcing compliance with the TS. The NOED was officially granted by letter dated June 24, 1996, until the prompt issuance of the proposed license amendment.

Accordingly, pursuant to 10 CFR 51.91(a)(6), the Commission has determined that an exigent situation exists in which it must act before the expiration of the 30-day comment period to bring the plants into compliance with the TS.

5.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92(c) state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility in accordance with the amendment would not: (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

Operation of the facilities in accordance with the proposed amendments will not involve a significant increase in the probability or consequences of an accident previously evaluated. As discussed in Section 3.0 of this SE, no credit is taken for the manual SI input to the reactor trip circuit in any accident or transient analyses.

Operation of the facilities in accordance with the proposed amendments will not create the possibility of a new or different kind of accident from any accident previously evaluated. Implementation of the proposed amendments does not introduce any change to the plant design basis. A failure of the handswitch contacts to manually trip the reactor is compensated for by the redundant trip features associated with the reactor trip system.

Changing the surveillance frequency to allow for continued operation with the SI manual input to reactor trip system not tested does not involve a reduction in the margin of safety because of the redundant features associated with the reactor trip system and because of operator actions required by emergency response procedures.

Based upon the above considerations, the staff concludes that the amendments meet the three criteria of 10 CFR 50.92. Therefore, the staff has made a final determination that the proposed amendments do not involve a significant hazards consideration.

6.0 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.

7.0 ENVIRONMENTAL CONSIDERATION

The amendments change the surveillance requirements. 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 made a final finding that the amendments involve no significant hazards consideration. 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.

8.0 CONCLUSION

The Commission 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, (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.

Principal Contributors: I. Ahmed
B. Siegel

Date: July 19, 1996