



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

February 20, 2009

Mr. J. Randy Johnson
Vice President - Farley
Joseph M. Farley Nuclear Plant
7388 North State Highway 95
Columbia, AL 36319

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2 RE: ISSUANCE OF AMENDMENTS (TAC NOS. MD9863, MD9864)

Dear Mr. Johnson:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 181 to Renewed Facility Operating License No. NPF-2 and Amendment No. 174 to Renewed Facility Operating License No. NPF-8 for the Joseph M. Farley Nuclear Plant, Units 1 and 2. The amendments consists of changes to the technical specifications (TS) in response to your application dated October 8, 2008.

The amendments revise the TS for the diesel fuel oil testing program. The proposed changes are based on NRC-approved Technical Specifications Task Force (TSTF) Traveler TSTF-374, Rev. 0. Prior notice of such a proposed change using the Consolidated Line Item Improvement Process was provided in the *Federal Register* on April 21, 2006 (71 FR 20735).

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,

A handwritten signature in cursive script that reads "Robert E. Martin".

Robert E. Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-348 and 50-364

Enclosures:

1. Amendment No. 181 to NPF-2
2. Amendment No. 174 to NPF-8
3. Safety Evaluation

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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 RENEWED FACILITY OPERATING LICENSE

Amendment No. 181
Renewed 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 October 8, 2008, 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 Renewed 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. 181, 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 and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION



Melanie Wong, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 20, 2009



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 RENEWED FACILITY OPERATING LICENSE

Amendment No. 174
Renewed 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 October 8, 2008, 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 Renewed 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. 174 , 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 and shall be implemented within 60 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

A handwritten signature in black ink, appearing to read "Melanie Wong", followed by a stylized flourish.

Melanie Wong, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: February 20, 2009

ATTACHMENT TO LICENSE AMENDMENT NO. 181
TO RENEWED FACILITY OPERATING LICENSE NO. NPF-2
DOCKET NO. 50-348, AND
ATTACHMENT TO LICENSE AMENDMENT NO. 174
TO RENEWED FACILITY OPERATING LICENSE NO. NPF-8
DOCKET NO. 50-364

Replace the following pages of the Appendix A Technical Specifications with the attached revised pages. The revised pages are identified by amendment number and contain marginal lines indicating the areas of change.

Remove

License Pages

NPF-2 page 4
NPF-8 page 3

TS Pages

5.5-11

Insert

License Pages

NPF-2 page 4
NPF-8 page 3

TS Pages

5.5-11

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No 181 are hereby incorporated in the renewed license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications.

(3) Additional Conditions

The matters specified in the following conditions shall be completed to the satisfaction of the Commission within the stated time periods following the issuance of the renewed license or within the operational restrictions indicated. The removal of these conditions shall be made by an amendment to the renewed license supported by a favorable evaluation by the Commission.

- a. Southern Nuclear shall not operate the reactor in Operational Modes 1 and 2 with less than three reactor coolant pumps in operation.
- b. Deleted per Amendment 13
- c. Deleted per Amendment 2
- d. Deleted per Amendment 2
- e. Deleted per Amendment 152
Deleted per Amendment 2
- f. Deleted per Amendment 158
- g. Southern Nuclear shall maintain a secondary water chemistry monitoring program to inhibit steam generator tube degradation. This program shall include:
 - 1) Identification of a sampling schedule for the critical parameters and control points for these parameters;
 - 2) Identification of the procedures used to quantify parameters that are critical to control points;
 - 3) Identification of process sampling points;
 - 4) A procedure for the recording and management of data;

- (2) Alabama Power Company, pursuant to Section 103 of the Act and 10 CFR Part 50, "Licensing of Production and Utilization Facilities," to possess but not operate the facility at the designated location in Houston County, Alabama in accordance with the procedures and limitations set forth in this renewed license.
- (3) Southern Nuclear, pursuant to the Act and 10 CFR Part 70, to receive, possess and use at any time special nuclear material as reactor fuel, in accordance with the limitations for storage and amounts required for reactor operation, as described in the Final Safety Analysis Report, as supplemented and amended;
- (4) Southern Nuclear, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess, and use at any time any byproduct, source and special nuclear material as sealed neutron sources for reactor startup, sealed sources for reactor instrumentation and radiation monitoring equipment calibration, and as fission detectors in amounts as required;
- (5) Southern Nuclear, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to receive, possess and use in amounts as required any byproduct, source or special nuclear material without restriction to chemical or physical form, for sample analysis or instrument calibration or associated with radioactive apparatus or components; and
- (6) Southern Nuclear, pursuant to the Act and 10 CFR Parts 30, 40 and 70, to possess, but not separate, such byproduct and special nuclear materials as may be produced by the operation of the facility.

C. This renewed license shall be deemed to contain and is subject to the conditions specified in the Commission's regulations set forth in 10 CFR Chapter I and is subject to all applicable provisions of the Act and the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:

(1) Maximum Power Level

Southern Nuclear is authorized to operate the facility at reactor core power levels not in excess of 2775 megawatts thermal.

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 174, are hereby incorporated in the renewed license. Southern Nuclear shall operate the facility in accordance with the Technical Specifications.

5.5 Programs and Manuals

5.5.13 Diesel Fuel Oil Testing Program

A diesel fuel oil testing program to implement required testing of both new fuel oil and stored fuel oil shall be established. The program shall include sampling and testing requirements, and acceptance criteria, all in accordance with applicable ASTM Standards. The purpose of the program is to establish the following:

- a. Acceptability of new fuel oil for use prior to addition to the emergency diesel generator storage tanks by determining that the fuel oil has:
 - 1. an API gravity or an absolute specific gravity within limits,
 - 2. a flash point and kinematic viscosity within limits for ASTM 2D fuel oil, and
 - 3. a clear and bright appearance with proper color; or a water and sediment content within limits.
- b. Other properties for ASTM 2D fuel oil are within limits within 31 days following sampling and addition to storage tanks; and
- c. Total particulate concentration of the fuel oil is ≤ 10 mg/l when tested every 31 days.
- d. The provisions of SR 3.0.2 and SR 3.0.3 are applicable to the Diesel Fuel Oil Testing Program surveillance test frequencies.

5.5.14 Technical Specifications (TS) Bases Control Program

This program provides a means for processing changes to the Bases of these Technical Specifications.

- a. Changes to the Bases of the TS shall be made under appropriate administrative controls and reviews.
- b. Licensees may make changes to Bases without prior NRC approval provided the changes do not require either of the following:
 - 1. a change in the TS incorporated in the license; or
 - 2. a change to the updated FSAR or Bases that requires NRC approval pursuant to 10 CFR 50.59.

(continued)



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 181 TO

RENEWED FACILITY OPERATING LICENSE NO. NPF-2

AND AMENDMENT NO. 174 TO

RENEWED 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 October 8, 2008, to the Nuclear Regulatory Commission (NRC, the Commission), the Southern Nuclear Operating Company, Inc. (SNC, the licensee) submitted a request for changes to the Joseph M. Farley Nuclear Plant, Units 1 and 2, technical specifications (TS). The requested change proposed the adoption of TSTF-374, "Revision to TS 5.5.13, and Associated Bases for Diesel Fuel Oil" without deviation or variation. Technical Specifications Task Force (TSTF) TSTF-374 relocates references to specific American Society for Testing and Materials (ASTM) standards for fuel oil testing to licensee-controlled documents and would add alternate criteria to the "clear and bright" acceptance test for new fuel oil. These changes were described in a Notice of Availability for CLIP TSTF-374 published in the *Federal Register* on April 21, 2006 (71 FR 20735).

2.0 REGULATORY EVALUATION

The onsite electrical power system includes standby power sources, distribution systems, and vital auxiliary supporting systems to supply power to safety-related equipment. Most commercial nuclear power plants use diesel generators (DG) as the emergency power source for the safety-related electrical buses. The importance of the DGs (or other standby power sources) is reflected in their incorporation into NRC regulations, TS, and other regulatory programs, including Appendix B ("Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants") to part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 50. NUREG-0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," addresses diesel fuel oil and other supporting systems in Section 9.5.4, "Emergency Diesel Engine Fuel Oil Storage and Transfer System Review Responsibilities."

The TS include requirements for testing diesel fuel oil to ensure it is of the appropriate grade and that it has not been contaminated (i.e., proper fuel oil quality). The Diesel Fuel Oil Testing Program defined in the TS includes tests for (1) the acceptability of new fuel oil for use prior to addition to storage tanks; (2) other properties of new fuel oil within limits within 30 days following

sampling and addition to storage tanks; and (3) total particulate concentration of the fuel oil every 31 days. The current TS identify particular ASTM standards and methods of performing these tests. The industry submitted TSTF-374 proposing changes to the Standard TS (STS) (NUREGs 1430 - 1434) to provide the flexibility to address future changes in Environmental Protection Agency (EPA) regulations for fuel oil or revisions to the ASTM standards. TSTF-374 was reviewed and accepted by the NRC staff and has been incorporated into each of the STS NUREGs. Requirements for testing the diesel fuel oil are maintained, but references to specific ASTM standards are relocated to licensee-controlled documents and an alternative to the "clear and bright" acceptance test for new fuel is added to address changes in EPA requirements.

3.0 TECHNICAL EVALUATION

In adopting TSTF-374, the licensee proposes to relocate the reference to specific ASTM standards from the TS Administrative Controls Section 5.5.13, "Diesel Fuel Oil Testing Program," to a licensee-controlled document. Although the reference to specific testing standards or methods is relocated, TS 5.5.13 retains acceptance criteria for new and stored diesel fuel oil and refers to "applicable ASTM standards" for sampling and testing requirements. The specific testing standards or methods are relocated to the TS Bases Section, which are controlled in accordance with 10 CFR 50.59, "Changes, tests, and experiments," as described in TS 5.5.14, "Technical Specification (TS) Bases Control Program." The licensee's testing programs for diesel fuel oil are also governed by other regulatory requirements, including Appendix B (Quality Assurance Criteria) to 10 CFR Part 50. While the relocation of selected program details provides the licensee with some flexibility to adopt practices defined in future ASTM standards, the NRC staff finds that the remaining TS, TS Bases Control Program, and other NRC regulations provide appropriate regulatory controls to ensure diesel fuel oil quality will be maintained.

The plant-specific adoption of TSTF-374 also includes an alternative to the "clear and bright" test currently required for new fuel oil acceptability. The revised TS would allow either the "clear and bright" test or a test confirming that the fuel oil has "water and sediment content within limits." This alternative test is better suited for darker colored fuels and is recognized in ASTM standards that have been referenced in NRC approved amendment requests. The NRC staff finds that the alternative for testing the water and sediment content will maintain or improve the inspection of new fuel oil and therefore finds the change acceptable.

The licensee included in its application the proposed revisions to the TS Bases to reflect the changes to TS 5.5.13 and to incorporate the references to the applicable ASTM standards. The changes are consistent with TSTF-374 and will be incorporated into the TS Bases in accordance with TS 5.5.14.

4.0 STATE CONSULTATION

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

5.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to the 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 amendment involves 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 amendment involves no significant hazards consideration, and there has been no public comment on such finding (73 FR 76413, December 16, 2008). Accordingly, the amendment meets 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 amendment.

6.0 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 Contributor: Gerald Waig, NRR/DIRS

Date of Issuance: February 20, 2009

February 20, 2009

Mr. J. Randy Johnson
Vice President - Farley
Joseph M. Farley Nuclear Plant
7388 North State Highway 95
Columbia, AL 36319

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2 RE: ISSUANCE OF AMENDMENTS (TAC NOS. MD9863, MD9864)

Dear Mr. Johnson:

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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,
/RA/

Robert E. Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-348 and 50-364

Enclosures:

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