

August 22, 2003

Mr. J. B. Beasley, Jr.  
Vice President - Farley Project  
Southern Nuclear Operating  
Company, Inc.  
Post Office Box 1295  
Birmingham, Alabama 35201-1295

SUBJECT: JOSEPH M. FARLEY NUCLEAR PLANT, UNITS 1 AND 2 RE: ISSUANCE OF  
AMENDMENTS (TAC NOS. MB6406, MB6407, MB9092 AND MB9093)

Dear Mr. Beasley:

The Nuclear Regulatory Commission has issued the enclosed Amendment No. 161 to Facility Operating License No. NPF-2 and Amendment No. 154 to Facility Operating License No. NPF-8 for the Joseph M. Farley Nuclear Plant, Units 1 and 2. The amendments consist of changes to the Technical Specifications (TS) in response to your application dated September 24, 2002, as supplemented by letters dated May 20 and July 16, 2003. The letters of May 20 and July 16, 2003, contain a change to the bases for TS 3.7.12 addressing a fuel handling accident in the spent fuel pool with no filtration, and the July 16, 2003, letter contains additional clarifying changes that the licensee has made to the bases for TS 3.7.12. The May 20 and July 16, 2003, do not change the initial proposed no significant hazards evaluation determination.

The amendments revise TS 3.7.10 "Control Room Emergency Filtration/Pressurization System (CREFS)" and TS 3.7.12 "Penetration Room Filtration (PRF) System." The amendments establish the actions to be taken for inoperable ventilation systems due to a degraded building pressure boundary.

The NRC staff has concluded that the proposed Action Statements that allow up to 24 hours to restore the building pressure boundary to operable status when two ventilation trains are inoperable due to an inoperable building pressure boundary in MODES 1, 2, 3, and 4 is acceptable. Furthermore, the addition of a Limiting Condition for Operation Note allowing the building pressure boundary to be opened intermittently under administrative control without affecting ventilation system operability was found acceptable. These changes along with the associated TS Bases changes were in accordance with Technical Specifications Task Force document TSTF-287.

Mr. J. Beasley, Jr.

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

Sincerely,

**/RA/**

Frank Rinaldi, Project Manager, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-348 and 50-364

Enclosures:

1. Amendment No. 161 to NPF-2
2. Amendment No. 154 to NPF-8
3. Safety Evaluation

cc w/encls: See next page

Mr. J. Beasley, Jr.

-2-

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cc w/encls: See next page

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SOUTHERN NUCLEAR OPERATING COMPANY, INC.

ALABAMA POWER COMPANY

DOCKET NOS. 50-348

JOSEPH M. FARLEY NUCLEAR PLANT, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 161  
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 September 24, 2002, as supplemented by letters dated May 20 and July 16, 2003, 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. 161, 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 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

John A. Nakoski, Chief, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: August 22, 2003

ATTACHMENT TO LICENSE AMENDMENT NO. 161

TO FACILITY OPERATING LICENSE NO. NPF-2

DOCKET NO. 50-348

ATTACHMENT TO LICENSE AMENDMENT NO. 154

TO FACILITY OPERATING LICENSE NO. NPF-8

DOCKET NO. 50-364

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

Remove

Insert

3.7.10-1

3.7.10-1

3.7.10-2

3.7.10-2

3.7.12-1

3.7.12-1

3.7.12-2

3.7.12-2

B 3.7.10-3

B 3.7.10-3

B 3.7.10-4

B 3.7.10-4

B 3.7.10-5

B 3.7.10-5

B 3.7.10-6

B 3.7.10-6

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B 3.7.10-7

B 3.7.12-3

B 3.7.12-3

B 3.7.12-4

B 3.7.12-4

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B 3.7.12-5

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B3.7.12-6

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B 3.7.12-7

SOUTERN 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. 154  
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 September 24, 2002, as supplemented by letters dated May 20 and July 16, 2003, 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. 154, 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 30 days of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

*/RA/*

John A. Nakoski, Chief, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: August 22, 2003



SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 161 TO FACILITY OPERATING LICENSE NO. NPF-2  
AND AMENDMENT NO. 154 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 September 24, 2002, as supplemented by letters dated May 20 and July 16, 2003, the Southern Nuclear Operating Company (the licensee) submitted a request for changes to the Joseph M. Farley Nuclear Plant, Units 1 and 2, Technical Specifications (TS). The requested changes would revise TS 3.7.10, "Control Room Emergency Filtration/Pressurization System (CREFS)," and TS 3.7.12 "Penetration Room Filtration (PRF) System," to establish actions to be taken for inoperable ventilation systems due to a degraded control room pressure boundary or PRF and spent fuel pool room boundary, respectively. This revision approves changes that would allow up to 24 hours to restore the pressure boundary to operable status when two ventilation trains are inoperable due to an inoperable pressure boundary in MODES 1, 2, 3, and 4. In addition, a Limiting Condition for Operation (LCO) Note would be added to allow the pressure boundary to be opened intermittently under administrative control without affecting CREFS or PRF System operability. The applicable TS Bases have been revised to document the TS changes and to provide supporting information. These changes are based on Technical Specifications Task Force (TSTF) document TSTF-287.

The letters of May 20 and July 16, 2003, contain a change to the bases for TS 3.7.12 addressing a fuel handling accident in the spent fuel pool with no filtration. The July 16, 2003, letter contains additional clarifying changes that the licensee has made to the bases for TS 3.7.12. The May 20 and July 16, 2003, do not change the initial proposed no significant hazards evaluation determination.

## 2.0 REGULATORY EVALUATION

The existing LCO 3.7.10 surveillance requirements that test the integrity of the control room boundary require a positive pressure limit to be satisfied with one ventilation train operating. While other surveillance requirements in the same specification test the operability and function of the ventilation train, the pressure test ensures that the control room pressure boundary leak tightness is adequate to meet design assumptions for post-accident operator doses.

The existing LCO 3.7.12 surveillance requirements that test the integrity of the PRF and spent fuel pool room pressure boundary require a negative pressure limit to be satisfied with one

ventilation train operating. While other surveillance requirements in the same specification test the operability and function of the ventilation train, the pressure test ensures that the boundary leak tightness is adequate to meet design assumptions for post-accident plant personnel doses.

Currently, there are no corresponding Condition, Required Actions, or Completion Times specified in LCOs 3.7.10 and 3.7.12 should the pressure boundary surveillances not be met. Under the existing specifications, LCO 3.0.3 must be entered (for two-train inoperability). Requiring the plant to enter LCO 3.0.3 when the ventilation boundary is not intact does not provide time to effect required repairs or corrective maintenance activities.

The proposed change is similar in nature to standard technical specifications (STSs) LCOs for secondary containment and shield building that allow 24 hours to restore secondary containment or shield building envelope to an operable status before requiring an orderly shutdown from operating conditions.

The NRC staff finds that the licensee has identified the applicable regulatory requirements. The regulatory requirements for which the NRC staff has based its acceptance criteria are:

- *Title 10 of the Code of Federal Regulations* (10 CFR) Sections 50.36, 50.59, 50.90, 50.92, Appendix A, and General Design Criteria (GDC) 19.
- Technical Specification Task Force Traveler TSTF-287, Revision 5. Approved by the NRC on March 16, 2000.
- The model TSs contained in the improved STSs, NUREG-1431, Revision 2, "Standard Technical Specifications, Westinghouse Plants," dated October 10, 2001; specifically STS 3.7.10, 3.7.13, 3.7.14, and associated Bases.

### 3.0 TECHNICAL EVALUATION

The NRC staff has reviewed the licensee's regulatory and technical analyses in support of its proposed license amendment that are described in Attachment 1 of the licensee's application. The evaluation below supports the conclusion 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.

#### 3.1 CREFS

The proposed changes to TS 3.7.10 are:

1. A Note has been added to LCO 3.7.10 for the CREFS to allow the control room boundary to be opened intermittently under administrative control. Corresponding Bases have been added that establish the administrative controls that are required to minimize the consequences of the open boundary.

2. A new Condition B is added to LCO 3.7.10 to specify that 24 hours are allowed to restore an inoperable control room boundary to operable status. All other conditions have been administratively re-labeled to support this change. Corresponding Bases are added to support this change.
3. Condition F of LCO 3.7.10 for two inoperable control room area ventilation system (CRAVS) trains in MODES 1, 2, 3, and 4 is modified to exclude entry into this Condition when the trains are inoperable because of the degraded control room pressure boundary. The associated Bases for Condition F are revised accordingly.

The LCO is modified by a Note allowing the control room boundary to be opened intermittently under administrative controls. For entry and exit through doors, the administrative control of the opening is performed by the person(s) entering or exiting the area. For other openings, these controls consist of stationing a dedicated individual at the opening who is in continuous communication with the control room. This individual will have a method to rapidly close the opening when a need for control room area isolation is indicated.

If the control room boundary is inoperable in MODES 1, 2, 3, and 4, such that the CRAVS trains cannot establish or maintain the required pressure, action must be taken to restore an OPERABLE control room boundary within 24 hours. The 24-hour completion time is reasonable based on the low probability of a design-basis accident occurring during this time period and compensatory measures available to the operator to minimize the consequences of potential hazards.

The proposed changes would allow 24 hours (during MODES 1, 2, 3, and 4) to restore the capability to maintain control room boundary pressure before requiring the unit to perform an orderly shutdown and also allows intermittent opening of the control room boundary under administrative control. During the period that the control building boundary is inoperable, appropriate compensatory measures consistent with the intent of 10 CFR Part 50, Appendix A, GDC 19 will be utilized to protect the control room operators from potential hazards such as radioactive contamination, toxic chemicals, smoke, temperature and relative humidity, and to ensure physical security. These preplanned measures will be available to address these concerns for intentional and unintentional entry into this condition. For example, when the control room boundary is opened for other than entry through doors, the proposed Bases state that, in addition to other necessary measures, a dedicated individual be stationed in the area in continuous contact with the control room to rapidly restore the boundary.

Additionally, the proposed change is considered acceptable because of the low probability of an event requiring an intact control room boundary occurring during the 24-hour action Completion Time associated with Condition B.

Based on the low probability of an event occurring during this time and the availability of compensatory measures consistent with GDC 19 to minimize the consequences during an event, the proposed change is considered acceptable and is in conformance with TSTF-287.

### 3.2 PRF System

The proposed changes to TS 3.7.12 are:

1. A Note has been added to LCO 3.7.12 for the PRF System to allow the penetration filtration and spent fuel pool room pressure boundary to be opened intermittently under administrative control. Corresponding Bases have been added that establish the administrative controls required to minimize the consequences of the open boundary.
2. The APPLICABILITY is modified to be consistent with the Bases discussion for APPLICABILITY. This is an administrative change.
3. A new Condition B is added to LCO 3.7.12 to specify that 24 hours are allowed to restore an inoperable PRF pressure boundary to operable status. All other Conditions have been administratively re-labeled to support this change. Corresponding Bases are added to support this change.
4. The second part of Condition C of LCO 3.7.12 for two inoperable PRF trains in MODES 1, 2, 3, and 4 is modified to exclude entry into this condition when the trains are inoperable because of the degraded PRF pressure boundary. The associated Bases for Condition C are revised accordingly.

The LCO is modified by a Note allowing the PRF pressure boundary to be opened intermittently under administrative controls. For entry and exit through doors, the administrative control of the opening is performed by the person(s) entering or exiting the area. For other openings, these controls consist of stationing a dedicated individual at the opening who is in continuous communication with the control room. This individual will have a method to rapidly close the opening when a need for PRF pressure boundary isolation is indicated.

If the PRF pressure boundary is inoperable in MODES 1, 2, 3 and 4, or such that the PRF trains cannot establish or maintain the required pressure, action must be taken to restore an OPERABLE PRF pressure boundary within 24 hours. The 24-hour Completion Time is reasonable based on the low probability of a design-basis accident occurring during this time period and compensatory measures available to the operator to minimize the consequences of potential hazards.

The proposed changes allow 24 hours (during MODES 1, 2, 3, and 4) to restore the capability to maintain PRF boundary pressure before requiring the unit to perform an orderly shutdown and also allow intermittent opening of the PRF pressure boundary under administrative control. During the period that the PRF pressure boundary is inoperable, appropriate compensatory measures consistent with the intent of 10 CFR Part 50, Appendix A, GDC 19, will be utilized to protect the plant personnel from potential hazards such as radioactive contamination, toxic chemicals, smoke, temperature and relative humidity, and to ensure physical security. These preplanned measures will be available to address these concerns for intentional and unintentional entry into the condition. For example, when the PRF pressure boundary is opened for other than entry through doors, the proposed Bases state that, in addition to other necessary measures, a dedicated individual be stationed in the area in continuous contact with the control room to rapidly restore the boundary.

Additionally, the proposed change is considered acceptable because of the low probability of an event requiring an intact PRF pressure boundary occurring during the 24-hour action completion time association with Condition B.

Based on the low probability of an event occurring during this time and the availability of compensatory measures consistent with GDC 19 to minimize the consequences during an event, the proposed change is considered acceptable and is in conformance with TSTF-287.

#### 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 an inspection or a surveillance requirement. 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 (67 FR 68744). 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.

#### 6.0 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: R. Giardina, RORP  
E. Forrest, SPLB

Date: August 22, 2003

Joseph M. Farley Nuclear Plant

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